

University of Northern Colorado

## Scholarship & Creative Works @ Digital UNC

---

Dissertations

Student Work

---

5-1-2015

### Examining Relationships between Proactive Coping and Experiences of Personal and Posttraumatic Growth during Anticipatory Grief

Kylie BreAnn Rogalla  
*University of Northern Colorado*

Follow this and additional works at: <https://digscholarship.unco.edu/dissertations>

---

#### Recommended Citation

Rogalla, Kylie BreAnn, "Examining Relationships between Proactive Coping and Experiences of Personal and Posttraumatic Growth during Anticipatory Grief" (2015). *Dissertations*. 47.  
<https://digscholarship.unco.edu/dissertations/47>

This Dissertation is brought to you for free and open access by the Student Work at Scholarship & Creative Works @ Digital UNC. It has been accepted for inclusion in Dissertations by an authorized administrator of Scholarship & Creative Works @ Digital UNC. For more information, please contact [Nicole.Webber@unco.edu](mailto:Nicole.Webber@unco.edu).

UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

EXAMINING RELATIONSHIPS BETWEEN PROACTIVE  
COPING AND EXPERIENCES OF PERSONAL AND  
POSTTRAUMATIC GROWTH DURING  
ANTICIPATORY GRIEF

A Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy

Kylie BreAnn Rogalla

College of Education and Behavioral Sciences  
Department of Applied Psychology and Counselor Education  
Counselor Education and Supervision

May 2015

This Dissertation by: Kylie BreAnn Rogalla

Entitled: *Examining Relationships between proactive coping and experiences of personal and posttraumatic growth during anticipatory grief*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in College of Education and Behavioral Sciences in School of Applied Psychology and Counselor Education, Program of School Counseling

Accepted by the Doctoral Committee

---

Elysia Clemens, Ph.D., Research Advisor

---

Heather Helm, Ph.D., Committee Member

---

Laura Jones, Ph.D., Committee Member

---

Susan R. Hutchinson, Ph.D., Faculty Representative

Date of Dissertation Defense \_\_\_\_\_

Accepted by the Graduate School

---

Linda L. Black, Ed.D.  
Associate Provost and Dean  
Graduate School and International Admissions

## ABSTRACT

Rogalla, Kylie. *Examining relationships between proactive coping and experiences of personal and posttraumatic growth during anticipatory grief*. Published Doctor of Philosophy dissertation, University of Northern Colorado, 2015.

Grief is a highly personal, subjective, and natural stress reaction to a real, perceived, or anticipated loss, particularly in cases of death (Buglass, 2010; Corr, 2007; Doka, 2003; 2007). All mental health professionals, regardless of setting, will inevitably work with clients who face acute or long-term conditions involving life-limiting illness, dying, death, and various forms of grief (Gordon, 2013).

Prominent theories on the grieving process tend to initiate attention after a death or other loss has occurred (Freud, 1917; Stroebe & Schut, 1999; Worden, 2002). Researchers have also given primary attention to the negative impacts or resulting pathologies of these stressful circumstances (e.g., psychological, medical, or social impairments), with far less focus on potentially positive outcomes (Neimeyer, Hogan, & Laurie, 2008; Siegel & Schrimshaw, 2000). It is suggested that a better understanding of the grief process and the factors that contribute to successful navigation and avoidance of problems in grief is essential (Walijarvi, 2011). *Grief to Personal Growth Theory* guided the current study and is composed of various individual reactions said to represent a common trajectory of grief (Hogan, Greenfield, & Schmidt, 2001; Hogan & Schmidt, 2002). This theory was shown to hold validity in anticipatory grief experiences in this investigation.

The participants in this study consisted of 120 English-speaking adults who were anticipating the loss of a loved one (e.g., due to terminal cancer, advanced Alzheimer's disease, etc.) at the time of participation. Proactive coping represented the primary independent variable under investigation, and growth (posttraumatic and personal) served the role of the dependent variable. Social support was examined under the context of its power in predicting growth as well as mediating effects.

Participants in this study reported significant evidence of posttraumatic and personal growth during their anticipatory grief experiences. Proactive coping was found to hold explanatory value in personal growth, over and above other covariates. Social support was found to significantly mediate the relationship between proactive coping and both forms of growth. The utility of social support was determined to be a function or outcome of the active mechanism of proactive coping. No evidence was uncovered concerning the relationship between time variables (life expectancy, time since notification of prognosis) and the grief reaction factors of despair, detachment, disorganization, and personal growth. The implications of the current study are intended to assist counselors, other helping professionals, and counselor educators in providing strength-based support to individuals anticipating the loss of a loved one. Suggested directions for future research are provided as well as limitations of the current study.

## **ACKNOWLEDGEMENTS**

The commencement of this doctoral journey and dissertation study would not have been possible without the support and encouragement of the UNC community and several important people. I would first like to acknowledge and thank my committee: Dr. Elysia Clemens, Dr. Heather Helm, Dr. Laura Jones, and Dr. Susan Hutchinson. To my chair, Dr. Clemens, I am beyond formal gratitude for the structure, guidance, and energy you have dedicated to this project. I couldn't have asked for a stronger leader.

The written word will only short-sell the immense love and appreciation I hold for my CES doctoral-student family. To Dr. Lisa Forbes, Aaron Henderson, Dr. David Johns (and his partner, Jim), Joel Givens, Dr. Margaret Lamar, Dr. Tyler Kimbel, Jenny Cureton (and her partner, Vida), and Janessa Belles, thank you so very much for being a part of this trip with me. You kept me laughing. You kept me human. Each of you will always have a lifelong colleague, advocate, and friend in me. To Dr. Diane Stutey, my roommate and confidant for three Colorado years, you are utterly amazing. I would not be the person or professional I am without you. Thanks for always being my lifeline.

Lastly, I need to pay homage to my incredibly strong, passionate, and loving family. To my tenacious and unbreakable sister, Shawna, you are an inspiration and grounding force for me. I'm so proud of all you've overcome and become. To my accommodating and patient mother, Becky, thank you for being the unwavering rock in my life. I see more of you in me every day. To my father, Jim, who was taken from us far too soon, thank you for being the spiritual driving force and inspiration behind this venture. I miss you all the time. I love you guys.

## TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.....	1
Grief Due to Death.....	4
Grief Models.....	5
Anticipatory Grief.....	6
Theoretical Foundation.....	7
Proactive Coping.....	8
Posttraumatic Growth.....	10
Social Support.....	13
Grief Reaction Factors.....	14
Uniting Constructs with Theory.....	15
Statement of the Problem.....	15
Purpose of the Study.....	17
Rationale for the Study.....	17
Research Questions.....	19
Definitions of Terms.....	21
Organization of the Study.....	21
II. LITERATURE REVIEW.....	23
Grief Models.....	24
Psychoanalytic Theory.....	25
Stage Theories.....	26
Task Model.....	28
Dual Processing Model (DPM).....	30
Deficit Approach to Grief.....	32
Grief as a Dysfunction.....	32
Grief and Depression.....	33
Normal vs. Abnormal Grief.....	34
Towards a New Direction.....	38
Strength-Based Approach to Grief.....	39
Making Meaning of Death.....	40
Personal Growth Models.....	42
Experiential Theory of Bereavement.....	43
Grief to Personal Growth Theory.....	46
Social Support and Growth.....	48
Proactive Coping.....	50
Defining Proactive Coping.....	52

Other Forms of Coping.....	52
An Active Process.....	54
General Self-Efficacy Similarities.....	55
Posttraumatic Growth.....	57
Personal and Posttraumatic Growth.....	59
Anticipatory Grief.....	61
Origins and History.....	63
Hospice and Palliative Care Agencies.....	65
Research with Anticipatory Grievers.....	67
Conclusion.....	69
 III. METHODOLOGY.....	 70
Research Design.....	70
Procedure.....	71
Sampling Strategy.....	71
Sample Size.....	73
Response Rates.....	75
Data Handling.....	76
Incentives.....	76
Instrumentation.....	77
Demographic Questionnaire.....	78
Proactive Coping Inventory.....	79
General Self-Efficacy Scale.....	82
Posttraumatic Growth Inventory.....	84
Hogan Grief Reaction Checklist.....	86
Research Questions and Analytic Strategies.....	88
Q1: Single Sample T-Tests.....	88
Q2: Hierarchical Multiple Regression .....	90
Q3: Mediation (Process tool).....	91
Q4: Canonical Correlation.....	96
Conclusion.....	98
 IV. RESULTS.....	 99
Participants.....	99
Reliability .....	103
Descriptive Statistics.....	104
Proactive Coping Inventory .....	104
General Self Efficacy Scale .....	105
Posttraumatic Growth Inventory .....	106
Hogan Grief Reaction Checklist .....	106
Data Analysis .....	107
Data Entry.....	107
Missing Data.....	108



Transformations.....	109
Testing of Hypotheses.....	110
Q/H1.....	111
T-Test Results.....	111
Q/H2.....	112
Variable Decisions.....	113
Variable Entry & Interpretation.....	114
Posttraumatic Growth Model Results.....	114
Personal Growth Model Results.....	117
Q/H3.....	120
Mediation Results.....	121
Q/H4.....	125
Preliminary Analyses.....	126
Canonical Correlation Results.....	127
Conclusion.....	127
V. DISCUSSION.....	129
Grief to Personal Growth Theory.....	129
Anticipatory and Post-Death Grief.....	130
Research Questions.....	131
Growth in Anticipatory Grief.....	132
Explanatory Power of Proactive Coping.....	136
Mediating Effects of Social Support.....	138
Time and Grief Reaction Factors.....	140
Implications for Practice.....	141
Research Question Implications.....	141
Additional Variable Implications.....	143
Directions for Future Research.....	145
Limitations.....	149
Conclusion.....	151
REFERENCES.....	154
APPENDICES.....	175
Appendix A—IRB Approval Letters.....	175
Appendix B—Agency Recruitment Letter .....	180
Appendix C—Participant Flyer.....	182
Appendix D—Informed Consent.....	185
Appendix E—Full Instrument.....	188
Appendix F—Proactive Coping Inventory (PCI).....	196
Appendix G—General Self-Efficacy Scale (GSE).....	198
Appendix H—Posttraumatic Grief Inventory (PTGI).....	200
Appendix I—Hogan Grief Reaction Checklist (HGRC).....	202
Appendix J—Hierarchical Regression Assumptions (Posttraumatic Growth)...	205
Appendix K—Hierarchical Regression Assumptions (Personal Growth).....	209

## LIST OF TABLES

Table 1 PROCESS CODE.....	96
Table 2 Demographic Information.....	102
Table 3 Reliability Information.....	103
Table 4 Pearson Correlation Matrix Among Scales.....	104
Table 5 Missing Data Percentages.....	109
Table 6 Transformation Statistics.....	110
Table 7 Q1 T-Test Results .....	112
Table 8 Pearson Correlation Matrix (Posttraumatic Growth).....	116
Table 9 Posttraumatic Growth (DV) Model Summary.....	116
Table 10 Posttraumatic Growth (DV) Regression Coefficients.....	117
Table 11 Pearson Correlation Matrix (Personal Growth).....	119
Table 12 Personal Growth (DV) Model Summary.....	119
Table 13 Personal Growth (DV) Regression Coefficients.....	120
Table 14 Model Summaries & Total Effects.....	123
Table 15 Direct & Indirect Effects.....	124
Table 16 Pearson Correlation Matrix of Canonical Correlation Variables.....	126

**LIST OF FIGURES**

Figure 1 Mediation Model..... 94

Figure 2 Canonical Correlation Model..... 98

Figure 3 Mediation Model Effects..... 124

## **CHAPTER I**

### **INTRODUCTION**

Grief, loss, and bereavement are constructs that most counselors and counselor educators have studied and seen firsthand in the field. Prominent theories on the grieving process tend to initiate attention after a death or other loss has occurred (Freud, 1917; Stroebe & Schut, 1999; Worden, 2002). The models are not utilized until after an assumed entry point (i.e., death) has taken place. A preexisting assumption of when a measurable trajectory of grief begins may not necessarily align with the client's experience.

These models also give primary attention to negative symptoms of reactive grief, often in attempt to identify potential dysfunction. The most positive goal associated with these traditional frameworks is an investment in the individual's return to "pre-death function" (Hogan et al., 2001, p. 5), to an acceptance of the loss (Kübler-Ross, 1969; Kübler-Ross & Kessler, 2005), or to a movement out of a state of depression and back to a place of normalcy and stability (Neimeyer, 2001). Research narrowly aimed at identifying dysfunction (i.e., locating the "problem") in the experiences of the bereft (Attig, 2004; Ferszt & Leveillee, 2006; Freud, 1917; Granek, 2010; Lindemann, 1944; Shear, Frank, Houck, & Reynolds, 2005) takes a deficit approach to studying a complex phenomenon that has the potential to contain both negative and positive components.

Many individuals who lose a loved person experience grief-related symptoms prior to the actual event of physical death. Hearing of a terminal illness (e.g., "Your

sister's cancer has spread, and she has approximately six months to live.”) may be considered a shocking and traumatic event in itself. Concluding his summary of past, present, and future theories of grief, Archer (2008) identified a theoretical gap based on this trauma perspective. This perspective implies that grief involves a set of reactions similar to those that follow other major life events with an emphasis on the ways these events challenge a person's beliefs about the world (Archer, 2008). This pre-death period of time deserves equitable empirical exploration.

The experiences of anticipatory grievers are given less attention in the grief literature than the experiences of those post-loss (Aho, Tarkka, Åstedt-Kurki & Kaunonen, 2006; Hyrkäs, Kaunonen & Paunonen, 1997; Kaunonen, Tarkka, Paunonen & Laippala, 2001; Laakso & Paunonen-Ilmonen, 2002; Riley, LaMontagne, Hepworth, & Murphy, 2007; Sanders, 1999). There is an entire phase of grief between notification of the medically imminent death of a loved one and the actual death itself that has not been included in the assumptions of many past models intended to describe the trajectory of the grief process. Family members, friends, and caregivers of terminally ill individuals often witness a period of disability or decline in their loved ones' condition. A significant portion of grief work is initiated and intensified during these anticipatory experiences (Salmon et al., 2003).

Less research attention has been placed on grieving individuals who not only reach a point of pre-loss function but also exhibit resilience and personal growth throughout the grief process (Fazio & Fazio, 2005; Tedeschi & Calhoun, 2009; Walijarvi, 2011). Personal growth reflects a progression of being positively transformed by a stressful event, as opposed to a sense of success or contentment with returning to

homeostasis (Hogan et al., 2001). Research assessing this additional component of the grief phenomenon captures a strength-based perspective. This perception embodies a shift in researcher assumption from aiming to identify possible dysfunction to a focus on resilience and growth despite a significantly stressful event. This served as the underlying foundation to the present study, and was guided by *Grief to Personal Growth Theory* (GPGT). According to this model, individuals have the potential to follow a trajectory through various grief reactions, access social support, and achieve personal growth that extends beyond their pre-trauma function (Hogan et al., 2001; Hogan & Schmidt, 2002). Contemporary leaders in the field of grief and loss treatment have stated that “the time is ripe for the formulation of new models of grieving that can help integrate and give direction to current research and that carry fresher and more helpful implications for clinical practice” (Neimeyer, 2001, p. 2). This investigation was designed to add to this gap in the literature.

The present study will add to the field of counseling and mental health literature by furthering empirical understanding of anticipatory grief. Common grief models (e.g., the task model), as well as Grief to Personal Growth Theory, were built upon the assumption that grief begins after death. This study examined whether or not commonly identified post-death grief reactions can be detected during anticipatory periods of grief. This research process was also intended to help identify whether or not elements of growth can indeed be experienced prior to an actual death event.

The results of this investigation uncovered potentially explanatory variables that influence the experience of growth during anticipatory grief. Proactive coping was the primary construct of interest in this study, over and above with other explanatory

variables. Proactive coping also served as the sole explanatory variable of growth in a model exploring the mediating capabilities of social support. The construct of growth was operationalized through two means. Personal growth, as considered a grief reaction factor (Hogan & Schmidt, 2002) and posttraumatic growth, as a result of a traumatic experience (Tedeschi & Calhoun, 1996), were both measured as criterion variables of interest.

### **Grief Due to Death**

The construct of grief has been studied for almost a century. Early psychological minds examined this phenomenon through the theoretical lenses of those times. Freud (1917) represented some of the earliest explorations of grief. He conceptualized this process as parallel to depression and involving a severed bond between an individual and an object of attachment (Rosenblatt, 2007). Freud viewed grief as a concrete event, as opposed to an ongoing process involving any search for meaning or growth (Clewell, 2004). This notion was soon met with professional criticism, even at such an early time in the field's understanding of grief (Hagman, 2001).

Scholarly interest in grief began exploding through a "death awareness movement" in the 1960s (Neimeyer, 2001, p. 1). Bowlby (1969) extended Freud's view of attachment and, along with other well-known grief researchers (Kübler-Ross, 1969), began viewing the grief process as a predictable sequence of steps for all individuals. Over time, many have argued that the permanent severing of bonds during grief is also unnecessary (Klass, Silverman, & Nickman, 1996). It was later stated that any generalization about the grieving process vastly misses accounting for individual

diversity across all persons and cultures, which may be fundamentally wrong for billions of people (Rosenblatt, 2007).

Professional specialties such as thanatology, suicidology, traumatology, and grief counseling have emerged as mental health specialties which aided in the development of support programs in agencies, schools, hospitals, churches, and community centers in recent decades (Neimeyer, 2001). The demand for knowledge and expertise in this area has consistently continued to expand. There is a growing need to further explore grief and grieving from the individual level and to expand upon concepts related to this process as cultures of people and environments grow and change in the 21st century.

### **Grief Models**

Several grief theories and models have been used in formulating approaches to working with bereaving adults. Grief pathology theories (Freud, 1917; Granek, 2010), stage models (Bowlby, 1969; Kübler-Ross, 1969), task models (Worden, 2002), and dual processing models (Richardson, 2006; Stoebe & Schut, 1999) each, in some way, suggest the need to process intense emotions associated with grief, utilize supportive resources, and make meaning of a loss (Walijarvi, 2011). Yet, these are not explicitly stated or included in the model framework of each. Contemporary researchers are too often inhibited by dated theories of grief that limit the scope of questions asked and implications derived from those findings (Neimeyer, 2001). In addition, many of the above models and theories were constructed or adapted for the reactive grief process, after a death or other significant loss occurs.



### **Anticipatory Grief**

As noted above, much of the existing literature on grief due to death describes the experiences of individuals after someone has died. This is not when grief begins in many cases. Anticipatory grief involves the mourning process after learning of an inevitable loss (e.g., terminal illness), and prior to the actual death (Hottensen, 2010; Simon, 2008). Much of the research on anticipatory grief comes from the medical and nursing fields (Hottensen, 2010; Simon, 2008). Less is known about this phenomenon from the mental health perspective.

Anticipatory grievers can expect to face a series of losses (e.g., selling the loved one's estate, seeing their loved one physically deteriorate, etc.) as they prepare for an upcoming death (Corr, 2010; Hottensen, 2010). Family members are oftentimes responsible for end-of-life decisions regarding their loved one's quality of life and palliative care which can layer grief in a unique way (Coombs, 2010). Families who access Hospice or other palliative care services in the United States serve as a core of the treatment team and are the center for all decision-making (Hospice Foundation of America, 2013). Additionally, research with these family members has yielded a common thread: they need professionals in their lives who are not afraid to talk about death and dying with them (Norton, Tilden, Tolle, Nelson, & Eggman, 2003).

Although experiences of anticipatory grief are often similar to grief after a death, societal mechanisms for assisting these grievers are often unavailable (Corr, 2007; Simon, 2008). Memorial services, family gatherings, grief recovery support groups, and community notifications of the event usually only manifest after the death (Corr, 2007). These formal resources are often unavailable for anticipatory grievers. This then requires

these individuals to pool their own resources and proactively access support systems with little external initiative or assistance. This time period can be useful for anticipatory grievers to prepare for the loss of a loved one and develop coping skills that will aid in the grief process (Simon, 2008). Providing support to family members can aid in uncovering opportunities for personal growth and is an optimal goal for practitioners working with the terminally ill (Hottensen, 2010).

Over the past decade, researchers have begun to reframe the bereavement process to include personal growth as a desired outcome of suffering associated with grief (Hogan & Schmidt, 2002). Grief to Personal Growth Theory aligns with this movement. The lens of this theory is focused on capturing the potential growth opportunities associated with grief, obtaining and utilizing supportive resources, and making meaning of loss.

### **Theoretical Foundation**

Grief to Personal Growth Theory affirms that growth is a possible outcome following a perceived loss (Hogan & Schmidt, 2002). This theory illustrates how grieving individuals experience various grief reactions. While some stay hindered in grief, others are capable of obtaining personal growth (Hogan & Schmidt, 2002). This growth is expected to result from the utilization of social support, which is necessary for grievers to rebuild and make meaning of their shattered schemas and assumptions (Hogan & Schmidt, 2002; Tedeschi & Calhoun, 2009).

The authors of the Grief to Personal Growth Theory state that the “normal trajectory of grief” involves periods of despair, detachment, and disorganization, which are also called grief reactions (Hogan et al., 2001, p. 3). Grieving individuals are then

capable of achieving personal growth (another grief reaction) associated with “a new sense of self that is more compassionate towards themselves and others” and gain a “fundamentally optimistic outlook for their future” (Hogan & Schmidt, 2002, p. 620). The end goal of grief, according to the theory, is not a return to pre-grief functioning, but to make new meaning and obtain a higher level of functioning than previously experienced (Hogan et al., 2001; Hogan & Schmidt, 2002). This aligns with the more modern view of the mourning process, which takes into consideration social surroundings, expressing feelings to others, and finding advantageous meaning in the face of loss (Hagman, 2001).

In summary, the essence of this theory avows that individuals are capable of experiencing personal growth through a natural trajectory of grief reactions (Hogan et al., 2001; Hogan & Schmidt, 2002). This is often facilitated by utilizing social support systems. Individuals who cope with anticipated grief proactively are capable of accumulating these resources and activating them when needed most (Greenglass, Schwarzer, & Taubert, 1999). This proactive coping disposition is explored next.

### **Proactive Coping**

Historical views on coping have centered largely among individual responses after an adverse event has occurred (e.g., reactive coping) (Schwarzer & Knoll, 2003; Schwarzer & Luszczynska, 2008). Contrarily, the process of proactive coping involves constructing a path for growth opportunities and building up resources that ensure that the individual will not become stagnant, but instead move forward out of strife and achieve a higher quality of functioning (Schwarzer & Knoll, 2003). Proactive copers fundamentally change the process of risk management into goal management and

accumulate a broad range of resources that promote personal growth (Aspinwall & Taylor, 1997; Schwarzer & Luszczynska, 2008). This empowerment approach strengthens individuals to more readily identify potential sources of stress and respond to them before they reach peak potential (Aspinwall & Taylor, 1997). Proactive coping is forward-focused and is aimed at improving value of life and developing an understanding of the positive experience of stress (Greenglass et al., 1999; Schwarzer, & Knoll, 2003; Schwarzer & Luszczynska, 2008).

Proactive coping can be viewed as both a personal disposition (Greenglass, 2002; Schwarzer & Luszczynska, 2008) and as a skill set of competencies (Aspinwall & Taylor, 1997; Bode et al., 2007). Recent research has suggested that proactive coping be viewed as a construct containing dispositional characteristics, as opposed to having only transactional appeal (Gan, Hu, & Zhang, 2010). This dispositional perspective was the focus of the current study because this is an acquired outlook on life which focuses on adapting to all of life's challenges in an optimistic manner, as opposed to a skill set taught to address silos of stress. In the face of adversity, proactive copers are able to tap into purposiveness, proactive goal setting, and an optimistic attitude towards life in their quest for personal growth (Bode et al., 2007).

Proactive coping elicits numerous benefits. An individual with this disposition, or outlook, minimizes the overall impact of the response experienced and offsets the weight of long-term stressors in order to keep chronic symptoms low (Aspinwall & Taylor, 1997). Stress is viewed as "eustress," or a moderately beneficial experience that produces vital energy within a person (Schwarzer & Luszczynska, 2008). By learning to harness and understand this energy, individuals may be presented with more options to

attack stress when in its early stages rather than when it has reached full intensity in the future (Aspinwall & Taylor, 1997).

Proactive coping emerged as an empirical construct in the late 1990s (Greenglass, Schwarzer, & Taubert, 1999) and has been examined with functional ability in the elderly (Greenglass, Fiksenbaum, & Eaton, 2006), models of personality (Hambrick & McCord, 2010), test anxiety (Sohl & Moyer, 2009), and occupational stress (Greenglass, 2002) among various other areas. Research has shown that individuals who take on a positive disposition and display affirmative emotions when talking through recent losses tend to show stronger adjustment after their bereavement has passed (Bonnano, Westphal, & Mancini, 2011; Butcher, Hooley, & Mineka, 2014). Proactive coping has recently been shown to inversely relate to symptoms of PTSD and general depression (Vernon, 2012), but has yet to be examined in anticipatory grief.

### **Posttraumatic Growth**

In the wake of a devastating experience, some people report a “growing sense of themselves” in which they feel healthier and more able (Znoj, 2006, p. 176). The term used in the literature to describe this experience is posttraumatic growth (PTG) and it can be viewed as both a process and an outcome (Tedeschi, Park, & Calhoun, 1998b). Individuals who experience posttraumatic growth in the face of their adversities form new psychological constructs that make room for the preceding event, along with new and improved ways of coping. These people learn to appreciate the current state or situation they find themselves within while also appreciating the distressful process that preceded these changes (Tedeschi et al., 1998b). They experience positive changes in ways of relating to others, develop a new understanding of themselves as stronger and

more capable, initiate new life adventures, and gain more satisfaction with their sense of spirituality and existential issues (Tedeschi & Calhoun, 2007).

Human life is full of hardship and disappointments and can be seen as intrinsically stressful at times (Schwarzer & Luszczynska, 2008). When an individual is confronted with stressors that disrupt current assumptions of his or her worldview, identity, or spirituality, this can result in what researchers consider *trauma* (Hogan & Schmidt, 2002; Pearlman & Saakvitne, 1995). Significant losses such as the loss of a loved one, loss of a cherished role or position, or an overall loss of understanding the meaning in life can be considered a traumatic “seismic event” (Tedeschi et al., 1998b, p. 2). Posttraumatic growth is a construct that differs from general terms of positive change because of these disruptions in previous assumptions (Pearlman & Saakvitne, 1995; Tedeschi & Calhoun, 2009). Individuals who experience posttraumatic growth are said to surpass their former “status quo” and feel profoundly improved (Tedeschi & Calhoun, 2009, p. 4).

Grubaugh and Resick (2010) claimed that a bereavement response “may be qualitatively different” than violent traumatic stressors such as sexual or physical assault, and therefore, it was excluded from their investigation of posttraumatic growth (p. 146). The traumatic impact of bereavement may be experienced differently than incidents of violent assault as explored by these researchers, yet there is reason to believe that grief should not be holistically excluded from trauma response research. The recently revised Diagnostic and Statistical Manual of Mental Disorders (DSM-5) created an explicit category for trauma-and-stressor-related disorders (American Psychiatric Association, 2013). These ailments are marked by anxiety- or fear-based symptoms to a traumatic or

stressful event. The most clinically serious disorder within this category is Posttraumatic Stress Disorder (PTSD). Criteria for this condition include exposure to threatened death by witnessing, in person, the event as it occurs to others; intrusive distressing memories; recurrent distressing dreams; dissociative reactions, avoidance of external reminders, irritable behavior, problems with concentration, sleep disturbance, and many others (APA, 2013, pp. 271-274). While anticipatory griever may not meet full criteria for the diagnosis of PTSD, the current investigation illustrated that hearing of a loved one's terminal illness can constitute a traumatic event making posttraumatic growth an appropriate construct to assess with this population.

Extensive research has given attention to the negative impacts or resulting pathologies of stressful circumstances (e.g., psychological, medical, or social impairments), with far less scholarly attention on potentially positive outcomes (Siegel & Schrimshaw, 2000). Posttraumatic growth emerged in research literature in the late 1980s and more strongly in the 1990s (Tedeschi & Calhoun, 2009). Experiences of posttraumatic growth have been studied in many different contexts of trauma both quantitatively (Anderson & Lopez-Baez, 2008; Sheikh & Marotta, 2005; Znoj, 2006) and qualitatively (Hefferon, Greal, & Mutrie, 2009; Neimeyer, 2004). Still, relatively little is known about the facilitating events of these experiences (Tedeschi & Calhoun, 2009). Further research in this area can assist in a better understanding of this process for clients who undergo major life crises and for clinicians who attempt to assist them (Tedeschi & Calhoun, 2009). Posttraumatic growth has recently been examined in a large population of women diagnosed with breast cancer ( $N=653$ ); however, a majority of these participants were in stage one of their illness (Danahauer et al., 2013). The sample

represented by this current study were responding to a terminal (i.e., incurable) diagnosis of a loved one.

### **Social Support**

Researchers who study positive dispositions and processes, such as proactive coping and posttraumatic growth, often are curious about factors that can facilitate these desired approaches and outcomes. Social support is a construct that has received considerable attention in studies involving trauma and loss (Cieslak et al., 2008; Greenglass, Fiksenbaum, & Eaton, 2006; Laasko & Paunonen-Ilmonen, 2002; Kaunonen, Tarkka, Paunonen, & Laippala, 2001; Luszczynska, Sarkar, & Knoll, 2006). There are various ways to define social support. In the interest of the present study, the Hogan and Schmidt (2002) definition was used: The availability of at least one person who will take the time to listen to the griever's experiences and feelings in a nonjudgmental way.

The benefits of social support have surfaced as effective in management of existent stressors (Aspinwall & Taylor, 1997; Cieslak et al., 2008). Those individuals who find it possible to reach out and share their struggles with supportive persons often report a strengthening of friendships and relationships (Frantz, Farrell, & Trolley, 2001). These stronger bonds and higher abilities to relate to others are also factors linked to posttraumatic growth (Tedeschi & Calhoun, 1996). Leading researchers in the field of proactive coping have postulated that social support and proactive coping are contained in a synergistic relationship, so as when combined, result in a more positive affect and increased motivation to continue on with life for individuals who encounter stressful events (Greenglass & Fiksenbaum, 2009).



### **Grief Reaction Factors**

Just as scholars attempt to understand which factors contribute to desired states of being, many also strive for an understanding of what constitutes normal and maladaptive grief experiences. Defining a common, or “normal,” trajectory of grief is an abstract concept, and the notion of discrete sequential stages (e.g., stage/task models) of emotional reactions is no longer being unanimously accepted as a valid approach (Neimeyer, 2001a). Many past investigations have focused on cases of dysfunctional outcomes (e.g., depression) as a result of grief, rather than examining the ongoing process of grief itself (Hogan et al., 2001). Hogan, Greenfield, and Schmidt (2001) attempted to more accurately capture this process through their research and creation of the Hogan Grief Reaction Checklist (HGRC). Their research was guided by Grief to Personal Growth Theory, and the resulting instrument consists of six factors, four of which are determined to represent “core grief” reactions (Hogan & Schmidt, 2002, p. 622). These four reactions are despair, detachment, disorganization, and personal growth (Hogan et al., 2001; Hogan & Schmidt, 2002).

These reactions were constructed by a series of rigorous methods (e.g., interviews, focus groups, member checks) with bereaving adults in attempt to construct an instrument based on natural experiences of grief derived from the griever's themselves (Hogan et al., 2001). The despair construct includes separation stress and emotional reactions such as hopelessness and sadness. The detachment construct comprises avoidance of tenderness, increases in withdrawal, and a perceived change in identity. The disorganization construct taps into a griever's difficulty in concentrating, incapacity to recall past information, and inability to absorb new material (Hogan et al., 2001). The

personal growth construct includes becoming more compassionate, forgiving, hopeful, and tolerant of distress (Hogan et al., 2001). These reaction factors were derived directly from Grief to Personal Growth Theory and all variables of interest in the current study also connect to this framework.

### **Uniting Constructs with Theory**

Grief to Personal Growth Theory essentially outlines a trajectory of grief involving core grief reactions (Hogan & Schmidt, 2002). According to this theory, individuals are thought to encounter initial reactions to grief (despair, detachment, disorganization), and through use of social support resources, can achieve an additional core grief reaction: personal growth (Hogan & Schmidt, 2002). Proactive copers accumulate supportive resources, take steps to prevent depletion of these assets, and mobilize them when they are needed the most (Greenglass & Fiksenbaum, 2009). Perceived in this way, social support is hypothesized to mediate the relationship between the two primary constructs of proactive coping and growth. Thus, social support is conceptually an outcome of proactive coping that mediates the successful navigation through normal grief reactions to personal or posttraumatic growth. The present study examined whether or not normal grief reactions presented in this theory are present in anticipatory grief experiences and explored the degree to which these reactions impact the theoretically grounded relationship between proactive coping and growth.

### **Statement of the Problem**

The majority of work done in the field of grief is done post-loss (Aho, Tarkka, Åstedt-Kurki, & Kaunonen, 2006; Kaunonen, Tarkka, Paunonen, & Laippala, 2001; Keesee, Currier, & Neimeyer, 2008; Sanders, 1999). The literature that guides these

explorations primarily takes a deficit approach by examining pathologies or problems associated with grief (Neimeyer, 2001; Siegel & Schrimshaw, 2000). Far fewer empirical investigations in the counseling field explore anticipatory grief and rarely also combine this with a strength-based approach (e.g., focused on identifying incidences of growth and facilitative factors of growth).

Many, if not most, past research studies assessing the impact of coping have focused on overcoming stressors that have occurred in the past (Folkman et al., 2004). Proactive coping has yet to be investigated in relation to incidents of growth during anticipatory grief. Studies examining similar constructs (e.g., active coping) were not initiated until recently (Riley et al., 2007). This construct has been assessed in adult populations experiencing distress; however, many past studies assessed issues such as work-related stress (e.g., job loss) (Greenglass, 2002) or adjustment to college (Gan, Hu, & Zhang, 2010). Greenglass (2002) suggested that the original findings which supported the use of the Proactive Coping Inventory (PCI) could be extended and are “rich in hypotheses for future research into the processes that simultaneously operate to reduce distress and promote well-being” (p. 32). The current study addressed this request.

Grief to Personal Growth Theory embodies the desired strength-based approach, which guided this current project. This theory had yet to be tested in terms of anticipatory grief and is a relatively young theory in the field of counseling and mental health (originating in the late 1990s). The theory was originally validated using structural equation modeling with a sample of adults who had lost a loved one. This sample of post-death grieverers may not have been inclusive enough to represent all grief experiences because a majority of the individuals in the sample lost their loved one due to sudden

accidents (65% of cases), and all participants were parents who had lost a child (Hogan & Schmidt, 2002). Further investigation is warranted to explore the concept of grief to personal growth when death is anticipated (e.g., terminal illness) and across various relationships to the dying individual. Recent researchers have suggested that a better understanding of the grief process and the factors that contribute to successful navigation and avoidance of problems in grief is essential (Walijarvi, 2011).

### **Purpose of the Study**

The purpose of the study was two-fold and intended to clarify similar concepts. Each explored the applicability of post-loss (i.e., after a physical death) theory and research to anticipatory grief experiences (i.e. before the physical death). Hogan and Schmidt (2002) stated “theory testing is an evaluation of the congruency between the theory being tested and the reality the theory purports to represent” (p. 620). A purpose of this study is to assess for fit of Grief to Personal Growth Theory and incidents of anticipatory grief. This was achieved through examining the prevalence and relationships between grief reaction factors, as defined by the theory, and the availability of social support for participants facing an inevitable death of a loved one. A second purpose of this study was to assess for the similarities and differences in post-death models of grief and anticipatory grief experiences. This was accomplished by examining the evidence of various constructs in the study which have been largely used in only post-loss investigations.

### **Rationale for the Study**

This study was an important investigation to embark upon at this time because (a) it tested the applicability of Grief to Personal Growth Theory in anticipatory grief, (b) it

emphasized a strength-based approach by assessing the degree of growth in anticipatory experiences, (c) it focused on identifying the disposition of proactive coping which is hypothesized to be a facilitative factor of growth, and (d) these constructs (i.e., proactive coping, grief reactions, posttraumatic growth) were yet to be studied together in one sample (i.e., adult anticipatory grievers).

By taking a strength-based approach, this study further addressed the call of the 21<sup>st</sup> century grief movement towards consideration of positive outcomes in grief (Neimeyer, 2001a; 2001b). Additionally, the focus of the study was upon identifying facilitative factors (e.g., proactive coping, social support) that may lead to growth. This will contribute to a better understanding among practitioners of which clients could be predicted to fair well as a result of their dispositions and resources and those who may not, when facing an expected loss.

Lastly, anticipatory grief receives far less empirical attention than post-death experiences. By gaining deeper understanding of the similarities and differences between pre and post death bereavement, practitioners can begin expanding post-death models and interventions to anticipatory grievers (e.g., in cases where these experiences show similarities) or further refining the need for independent treatments (e.g., if cases show differences). This will be of particular importance to professionals who work directly and indirectly with those experiencing anticipatory grief such as practicing counselors, counselors-in-training, bereavement coordinators, Hospice Chaplains, support group facilitators, counselor educators, and anticipatory grievers themselves.

## Research Questions

The following research questions were constructed to assess four primary interests. The first question assessed whether or not the concepts of personal growth and posttraumatic growth can indeed be detected during anticipatory grief experiences as individuals prepare for the loss of a loved one. The second research question examined the explanatory relationship between proactive coping and growth, over and above other variables that were correlated with growth. The third research question tested a simple mediation model involving social support. Proactive coping served as the explanatory variable, social support was the hypothesized mediator, and both personal growth and posttraumatic growth were assessed separately as the outcome variables. Finally, the fourth research question addressed the relationship between time since learning of the prognosis (e.g., “I found out last week”) and probable life expectancy of the terminal loved one (e.g., “According to her doctor, she has six months to live.”) in relation to various grief reactions. The research questions accompanying the current investigation are listed below. This chapter concludes with a glossary of common terms to be used throughout this document as well as the organization of later chapters.

- Q1 Does posttraumatic and personal growth occur in anticipatory grief experiences?
- H1 Personal growth will be evident in comparing means of participant scores on the Posttraumatic Growth Inventory and Hogan Grief Reaction Checklist personal growth subscale and the designated cut-off scores (PTGI=45; HGRCPG=26). The mean differences will be statistically significant ( $p \leq .05$ ). Effect sizes will be medium using Cohen’s  $d$  conventions ( $d > .5$ ) (Cohen, 1988).

- Q2 To what degree does proactive coping explain posttraumatic or personal growth over and above intimacy, time since being informed of the prognosis, despair, and social support?
- H2 There will be a significant ( $p \leq .05$ ) positive relationship between proactive coping and posttraumatic growth as measured by the proactive coping scale of the Proactive Coping Inventory (PCI), the Posttraumatic Growth Inventory (PTGI), and the personal growth subscale of the Hogan Grief Reaction Checklist (HGRC) after other correlated variables are accounted for in the hierarchical regression analyses. This will have a medium effect using Cohen's  $f^2$  conventions ( $f^2 > .15$ ).
- Q3 Does social support mediate the relationship between proactive coping and posttraumatic or personal growth?
- H3 The indirect effect of the predictor and mediator will show a positive significant relationship ( $p < .05$ ) with the outcome variables, posttraumatic and personal growth. This will have a medium effect through examination of  $k^2$  effect and confidence intervals (Field, 2013).
- Q4 To what extent does time since learning of prognosis and life expectancy explain grief reactions?
- H4 Exploratory

### **Definitions of Terms**

*Anticipatory Grief:* A “shifting series of losses” in response to an expected death or loss (Corr, 2007, p. 13).

*Disposition:* An individual’s predominant or prevailing tendencies, natural mental and emotional outlook or mood, and characteristic attitude.

*Grief:* An emotional reaction to a loss due to death (Doka, 2007a; Corr, 2007)

*Grief Reactions:* Despair, detachment, disorganization, and personal growth (Hogan et al., 2001; Hogan & Schmidt, 2002).

*Mourning:* The effort an individual exhibits to manage grief (Corr, 2007)

*Posttraumatic Growth:* An experience in which individuals gain positive changes in ways of relating to others, develop a newer understanding of themselves as stronger and more capable, and gain more satisfaction with their sense of spirituality and existential issues after a significant loss (Tedeschi & Calhoun, 2007).

*Proactive Coping:* A way of being which involves fundamentally changing the process of *risk* management into *goal* management and accumulating a broad range of resources that promotes personal growth (Aspinwall & Taylor, 1997; Schwarzer & Luszczynska, 2008).

*Social Support:* The availability of at least one person who will take the time to listen to the griever’s experiences and feelings in a nonjudgmental way (Hogan & Schmidt, 2002).

### **Organization of this Study**

The contents of this investigation are presented in five chapters. Chapter I outlined the literature pertaining to historical models of grief, the lesser explored concept of anticipatory grief, and introduced the primary constructs assessed in the current study



(proactive coping, grief reactions, and posttraumatic growth). The theoretical lens was discussed as well as the problem and rationale for this investigation. This chapter concluded with revisiting the purpose and rationale of this investigation and introducing the research questions and definitions of common terms used throughout the document.

Chapter II further explores the depth of literature surrounding grief and loss, existing grief models, and a new 21<sup>st</sup> century movement aimed at introducing the added focus of grief work containing personal growth as a plausible outcome. Anticipatory grief is discussed at length, depicting the various opinions on similarities and differences among individuals who may experience grief prior to or after a death of a loved one. This chapter also further describes *Grief to Personal Growth Theory* along with the history and current relevance of the constructs of proactive coping, general self-efficacy, and posttraumatic growth.

Chapter III includes the detailed methodology of the current study including a description of the participants, sampling approaches, procedures, and the instrument used including existing reliability information. It also should include a description of the data analyses used to answer the research questions. Chapter IV explains the results of the testable research questions given the data obtained from the current sample. Chapter V contains the discussion and implications of these results for the field of counseling and related helping professions. Directions for future research and imitations of the study are also discussed in this section.

## CHAPTER II

### LITERATURE REVIEW

Grief is a natural human reaction to perceptions of loss or separation (Buglass, 2010). Situations which invoke experiences of grief and loss can include various types of problems and differing losses (e.g. job, home, marriage, relocation, etc.). Many contemporary scholars describe grief as an emotional reaction to a loss due to death (Buglass, 2010; Corr, 2007; Doka, 2007). All mental health professionals, regardless of setting, will inevitably work with clients who face acute or long-term conditions involving life-limiting illness, dying, death, and grief (Gordon, 2013). The present study operated within the context of grief due to death (impending) in order to expand the understanding of this complex experience in the field of counseling.

As the previous chapter introduced, periods of grief and bereavement often begin prior to death itself. Yet, this critical time period receives far less scholarly attention than research conducted assessing post-loss reactions. *Anticipatory grief* is defined as the phenomenon that occurs through growing awareness of an inevitable loss and through recognition of an associated series of losses in the past, present, and future (Corr, 2007; Rando, 2000a). As individuals prepare for a death of a loved one, they are undoubtedly influenced to varying degrees and may cope in a variety of ways.

Alongside of research done primarily post-loss, these investigations have also held primary focus on identifying or preventing dysfunction (Attig, 2004; Ferszt & Leveillee, 2006; Freud, 1917; Granek, 2010; Lindemann, 1944; Shear, Frank, Houck, &

Reynolds, 2005). In other words, bereaving individuals are often subject to grief studies that assess their current levels of pathological distress, such as anxiety and depression, rather than studies that attempt to holistically capture the bereavement process itself (Hogan et al., 2001). Scanning for pathology in the bereft is a deficit-focused approach to grief research. Contrarily, the current investigation introduces a new wave of conceptualizing grief experiences, specifically shedding light onto *personal growth* as a potential process in anticipatory grief. By assessing facilitative factors (e.g., proactive coping, social support) that lead to this transformational experience, this study takes on a strength-based approach.

This chapter begins by summarizing past dysfunction-focused models of grief and bereavement dating back to the early 20<sup>th</sup> century. From this historic time period in grief research and onward, scholarly understanding of this concept has begun to gradually shift. Today's comprehension of this topic has begun to include more appreciation for the personal growth construct, along with variables that facilitate this desired outcome. These new perspectives and the theory that guides the current study are discussed within the strength-based approach.

### **Grief Models**

The experience of grief has been examined by psychologists and physicians dating back to the early 20<sup>th</sup> century (Freud, 1917) in attempt to “describe, predict, control, and even cure the behaviors of the bereaved” (Hogan, Morse, & Tasón, 1996, p. 43). Many theoretical perspectives or models have evolved in history to help practitioners develop an understanding of this human experience. Psychoanalytic influences began this charge, and were followed by stage theories and task or dual processing models.

Many of these models were highly focused on post-loss experiences and none included a personal growth component within the proposed trajectories or stages. The 21<sup>st</sup> century has brought with it a new energy directed towards understanding both the negative and positive experiences of grief, including the potential for making meaning and personal growth. Consistent with this charge, the current study also introduced the idea of assessing these positive components prior to physical death of a loved one.

### **Psychoanalytic Theory**

Sigmund Freud was one of the first to benchmark the start of this evolving understanding of grief and loss (Freud, 1917). In his early book, *Mourning and Melancholia*, Freud (1917) described the process of grief as containing a painful experience where the bereaved must process through individual memories of a lost person in an effort to permanently detach the ego from the memory of the other individual (Clewell, 2004; Rosenblatt, 2007). This was thought, by Freud, to be a self-serving attempt to withdraw projected pieces of the griever's self, which was necessary to regain autonomy (Clewell, 2004). At this time, Freud viewed grief as a concrete event with a sudden and complete ending, often when the griever received relief from enduring pain by finding a substitute attachment object (Clewell, 2004; Hagman, 2001).

By the time Freud (1923) wrote, *The Ego and the Id*, he had started to consider the possibility of grief and mourning existing as an ongoing process (Clewell, 2004). In this work, Freud reconsidered the character of the ego to be "an embodied history of lost attachments" (Clewell, 2004, p. 56). In this context, the grieving individual may struggle with internal anger against these painful experiences or may recognize the conditional nature of these events as part of an ongoing life experience with no absolute end

(Clewell, 2004; Freud, 1923). The impact of Freud's work inspired many more early grief researchers in the decades that followed.

### **Stage Theories**

Stemming from the psychoanalytic influence, stage theories were the next to show promise in the understanding of grief and loss. John Bowlby (later assisted by Mary Ainsworth and Colin Parkes) worked directly with Freud early in his career and soon after developed his well-known *attachment theory* (Bowlby, 1969; Bretherton, 1992). Attachment theory suggests that infants experience various degrees of anxiety when separated from a caregiver with whom the child has developed a strong emotional attachment (Bowlby, 1969). Lack of perceived fulfillment of childhood needs from these attachment objects can result in defense mechanisms that parallel adult mourning later in life (Bretherton, 1992; Noppe, 2000).

Bowlby studied separation responses in children for much of his career, but also collaborated on studies of adult grief. In their joint work, Bowlby and Parkes (1970) identified four phases (or stages) of adult mourning. These included numbness, yearning and protest, disorganization and despair, and reorganization (Bowlby & Parkes, 1970). These stages may not be readily distinct from one another, but through this lens, experiences of grief are said to diminish in intensity and frequency, leading to a feeling that is "more bittersweet than painful" over linear time (Prigerson & Jacobs, 2001, p. 1372).

Elisabeth Kübler-Ross also was an instrumental stage theorist who gained much of her professional interest in grief from the stage theory proposed by Bowlby and Parkes (Bretherton, 1992). In her extensively well-known work, *On Death and Dying*, Kübler-

Ross (1969) described a five stage model which she constructed while working with terminally ill patients as they processed through their own impending death (Maciejewski, Zhang, Block, & Prigerson, 2007). These progressive stages are denial, anger, bargaining, depression, and acceptance (Kübler-Ross, 1969). This stage theory was built upon anticipatory experiences; however, the theory was originally applied to the dying themselves as they progress from hearing of their illness to accepting their final stage of life (Copp, 1998; Kübler-Ross, 1969). In fact, the original work of *On Death and Dying* was a report introducing a five-stage model of *death*; not a model of grief (Kübler-Ross & Kessler, 2005). Over time, this model was shifted to apply to the grief process experienced by various individuals in various types of loss (Kübler-Ross & Kessler, 2005; Leibenluft, Green, & Giese, 1988). This suggests the fluidity of grief models to apply to both pre and post death experiences.

Stage theories have been widely accepted by professionals who assist the bereaving and have been generalized to apply to a variety of contexts (e.g., parental loss, marital loss, death of an inpatient in clinical settings, nursing professionals who work with the dying) (Downe-Wamboldt & Tamlyn, 1997; Maciejewski et al., 2007). The clear delineation suggested by each progressive stage has brought structure to a previously assumed vague and disturbing experience, making the models practically useful for clinicians (Copp, 1998). Clients could then be assessed to determine within which stage they currently reside, and counselors then may apply appropriate strategies to match that stage in hopes of furthering the clients' progression through the models. This is an understood and well-respected strength of stage theories. Also, the language used by

Bowlby and Parkes (1970) began to steer towards the concept of growth, although not explicitly stated (stages of despair and disorganization leading to a reorganization stage).

The linear and passive assumptions of these models suggest that the client progresses naturally through a set of universal stages, in one direction, and at times may need assistance from a trained professional to advance (Copp, 1998). This gives the client little accountability to the process. Also, stage theories can be viewed as giving too much emphasis on overcoming defense mechanisms built against threat and conflict, ignoring many other multifaceted components of this highly complex experience (Corr, 1992).

### **Task Model**

Stage models have been generally recognized as having validity in conceptualizing the grief process over the past few decades; however, others still see difficulties with this approach. Worden (2002) has stated that the largest limitations with these models are that people do not pass through stages “in seriatim,” and many novice practitioners make the mistake of taking the stages too literally or attempting to push clients through the stages (Copp, 1998; Worden, 2002, p. 25).

In response, Worden (1996; 2002) constructed and described four *tasks of mourning* in order to improve the usefulness of grief models for clinicians and to provide the bereaving with a set of active tasks they can complete, rather than the passive approach suggested by the stage models above. In his latest edition of *Grief Counseling and Grief Therapy*, Worden (2002) lists these four tasks of grief work: Task One: To Accept the Reality of the Loss, Task Two: To Work Through the Pain of Grief, Task Three: To Adjust to an Environment in Which the Deceased is Missing, and Task Four: To Emotionally Relocate the Deceased and Move on with Life.

The first task of this model involves accepting both the intellectual and emotional loss as real and permanent. Individuals struggling with this task may become stagnant by experiencing denial of the death. The second task describes a sense of surrender to the emotional pain experienced by the loss. Those who have problems with this task are stated to avoid painful thoughts or reframe the death into a pain-denying scenario. For example, a person may state, "He is in a better place," following a death of a loved one. Worden (2002) asserted that even if this is true, the individual making this statement is denying the existence of the emotional pain of the person leaving him or her in the present.

The third task in this model highlights three adjustments the griever must make in order to adapt to his or her environment without the deceased person's presence. These adjustments include external (e.g., noticing the roles previously played by the deceased), internal (e.g., confrontation with a new sense of self without the deceased), and spiritual practices (e.g., searching for meaning in the loss). Individuals struggling with this task can work against their process by fostering a sense of helplessness or avoiding skills needed to cope effectively. Finally, the fourth task of this model posits that the mourner must find an emotional place for the deceased within him or herself (i.e., "continuing bond") that still allows him or her to move on with his or her life (Klass et al., 1996). Those hindered in this task hold on to their past attachment with the deceased rather than moving forward and forming new bonds with others.

Despite Worden's objection to the linear process of stage models, he does state that "there is some ordering suggested in the definitions" of each of the identified tasks (Worden, 2002, p. 27). Worden was also one of the first scholars to introduce the idea of



mediating variables which influence the severity and longevity of the grief experience. He highlighted seven of these variables, including social support, suddenness or expectedness of the loss, and personality variables (e.g., coping style, cognitive style, self-efficacy, and assumptive beliefs) (Worden, 2002).

A notable strength of this task model is that it grants the client some direct control in his or her experience and grief work. Worden (2002) also introduced a spiritual search for meaning within the third task and the concept of including mediating variables into grief model structure. These tasks also appear to have narrow boundaries around their definitions used for describing a client's current state of being given his or her work within a task. For example, Worden (2002) claimed that when a client experiences problems completing a set task, he or she is struggling with a defined issue (e.g., Task Four: Inability to sever past attachment). Without first collecting information from the client perspective to check for accuracy, a counselor may be attributing significance to a concept that may or may not be relevant for the person having the experience. Despite criticisms of the prescriptive nature of her original work, in the final year of her life, Kübler-Ross and her colleague, David Kessler, stated "our grieving is as individual as our lives" (Kübler-Ross & Kessler, 2005, p. 7). Lastly, as Worden (2002) stated himself, these tasks remain linear. It can be assumed then that a client who regresses or returns to a previous task be labeled as experiencing problematic grief. The model presented next addresses this issue.

### **Dual-Processing Model (DPM)**

Stage and task models have earned credibility due to their succinct description of the various levels of grief; however, other researchers and scholars have had complaints

about the passive or one-directional nature of these ideas. Stroebe and Schut (2010) agreed with Worden (2002) and stated that the sequential-step models “neglect the effortful struggle” of the grieving process by assuming individuals are put through a system of grief rather than actively working through a trying process (p. 275). These authors constructed the Dual Process Model of Coping with Bereavement (DPM) in attempting to capture a more accurate description of this experience (Stroebe & Schut, 1999). This model introduces the concept of oscillation, or dynamic fluctuation between coping with loss-oriented and restoration-oriented stressors (Stroebe & Schut, 2010). The addition of this notion that grief can fluctuate back and forth between stressor foci differs from Worden’s idea of working through a sequential series of tasks.

The DPM allows for more flexibility in the interpretation of the grief process as individuals grieve in everyday life and adapt new lifestyle changes (Buglass, 2010). Whether coping through loss or restoration-oriented stress, the grieving individual embarks on working through a series of variables related to each. The variables associated with the loss-oriented processes include grief work, intrusion of grief, avoidance of restoration, and breaking bonds or ties with the deceased (Buglass, 2010; Stroebe & Schut, 2010). The variables tied to the restoration process include attending to life changes, distraction from grief, doing new things, and establishing new roles or identities (Buglass, 2010; Stroebe & Schut, 2010).

As previously-described, even in terms of anticipatory grief, models and theories of understanding the mourning phenomenon often neglect consideration of alternative experiences associated with returning the griever to a sense of normalcy. Grief studies often focus on identifying risk-factors associated with dysfunctions or potential problems

that can result from complications within the griever's process through his or her experience of loss (Attig, 2004; Ferszt & Leveillee, 2006; Granek, 2010; Shear et al., 2005). Dysfunction-focused exploration represents a deficit approach to understanding the grief experience. Alternatively, another style exists. The history of the dysfunctional perspective is next explored, followed by a strength-based approach that guided the current study.

### **Deficit Approach to Grief**

In Western cultures, grief is often viewed as a profoundly negative experience, where individuals affected by grief regularly take on a “death-denying” or “grief avoiding” approach toward the process (Walters, 2008, p. 277). Historically, scholars have stated that “giving way to grief is stigmatized as morbid, unhealthy, and demoralizing” (Gorer, 1965, p. 130). Viewing grief in such an oppositional manner leaves little room for alternative possibilities, such as positive experiences. Grief is next explored in relation to mental health dysfunction, followed by a specific connection between grief and depression. Following this description, a discussion of abnormal versus normal grief ensues, transitioning into a new direction towards the strength-based approach of the current study.

### **Grief as a Dysfunction**

The grief process has been summarized by scholars as an intense period of sadness, longing, sorrow, despair, and anguish (Granek, 2010). The roots of this viewpoint parallel some of the original scholarship in the field of grief and loss. Freud's (1917) depiction of the grief process was described in his early work as “profoundly painful dejection, cessation of interest in the outside world, loss of the capacity to love,

and inhibition of all activity” (p. 244). Bowlby (1980) has stated that individuals who avoid inevitable conscious grieving “sooner or later break down—usually with some form of depression” (p. 158). These influential researchers made great strides in improving our understanding of grief and loss. The focus of even these foundational scholarly contributions was often on describing grief as a problem to avoid or endure with the potential of developing dysfunction.

Grief is often represented by a negative association of affective, physical, cognitive, and interpersonal responses that can vary from mild to severe and fluctuating in intensity over time (Bonanno, 2001; Riley, LaMontagne, Hepworth, & Murphy, 2007). Psychometrically, this viewpoint has also limited research implications. Instruments that are designed to measure psychological dysfunction (e.g., depression, anxiety, etc.) in the bereft lack the depth necessary to assess the multidimensional nature and characteristics and alternative components of the bereavement process (Hogan et al., 2001).

### **Grief and Depression**

For decades, grief has been assumed to run parallel to various forms of depression (Rosenblatt, 2007). Lindemann (1944) reported anticipatory grief experiences of family members whose loved ones served in the war. In his description, these experiences mirrored all of the stages of post-death grief, in which a state of depression was highlighted (Lindemann, 1944). Ferszt and Leveillee (2006) published a guide to help nursing professionals distinguish between grief and clinical depression. Within these descriptions, the authors started by labeling the grief experience as containing “intense emotional pain” (p. 60). The authors listed several shared characteristics between the two constructs (e.g., impaired function, somatic disturbance, loss of interest in outside world),

highlighting the “key difference” between the two constructs being that the griever still has connection to others and “periodically experiences pleasure” (where depressed individuals do not) (p. 60). Contrary to this belief, Block (2000) stated that separation from loved ones may be a common experience during anticipatory grief when an individual is faced with terminal illness. Clearly, the status of relation to others (e.g., social support sought or accepted) by griever is something that is up for debate and warrants further examination. The commonalities between experiences of grief and depression give grounds for the misinterpretation of these two constructs. Literature continues to support the notion that these two experiences are indeed significantly distinct (Jacobsen et al., 2010).

### **Normal vs. Abnormal Grief**

In a 300-page report on the past state of bereavement research, theory, and practice, Osterweis, Solomon, and Green (1984) cautioned against eagerness to define pathological grief. These authors suggested that without a firm understanding of what constitutes normal grief, researchers have no grounds from which to “develop sound criteria for abnormal reactions” (Osterweis et al., 1984, p. 9). Yet, a primary paradigm in the field of thanatology has been focused on the treatment of grief-related complications and identification of risk factors associated with these problems (Gamino et al., 2000). Severe grief experiences have been shown to correlate with both mental and physical impairments, misuse of medical services, and even death (Prigerson & Jacobs, 2001). Jacobsen and colleagues (2010) have reported studies showing increases in suicidal ideation and attempts, hospitalization, hypertension, and reduced quality of life in participants who experienced states of prolonged grief symptoms.

Individuals who struggle with their grief often hear terms associated with their experience. Grief, like any complex construct, has many sub-concepts that have made their way into the literature. An individual's grief experience is often assigned into one of two camps: normal and abnormal (Freud, 1917; Worden, 2002). When "grief goes wrong," it is often scripted with a single defining term or a combination of such. These include complicated grief, chronic grief, delayed grief, unresolved grief, pathological grief, or exaggerated grief among many others (Worden, 2002).

Chronic grief can be explained as grief that is excessive in duration and never comes to a satisfying conclusion. This may lead the bereft to feel as if they have unfinished business with the deceased or that they lack closure with the grief experience (Worden, 2002). Delayed grief is represented through inhibition, suppression, or postponement of participation in the grief process. Individuals experiencing delayed grief often lack social support (Worden, 2002). Disenfranchised grief also can be activated by a lack of social support, and is found in instances where grief may not be socially acceptable given the context of the loss, denying the bereft the right to grieve successfully (e.g., loss of an extramarital partner) (Attig, 2004; Doka, 2007b; Gamino et al., 2000). Many individuals also experience secondary grief when disruptions in everyday patterns change as a result of a loss (e.g., changes in friendship circles after a divorce) (Doka, 2007b). Exaggerated grief can occur when an individual becomes so overwhelmed by his or her reactions to grief that he or she resorts to maladaptive behavior. Complications such as these can lead to disabling disorders such as clinical depression, anxiety disorders, phobias, substance abuse, posttraumatic stress disorder, and mania (Worden, 2002).

Issues of complicated grief may involve an extended period of depression and an inability to resume life as previously lived prior to a loss or separation (Riley et al., 2007; Shear, Frank, Houck, & Reynolds, 2005). The term received so much recognition that complicated grief disorder was proposed for inclusion in the 2013 edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) to diagnose cases where persistent grief reactions continue beyond six months post-loss (Shear, 2011). The past edition of the DSM (DSM-IV-text revision, 2000) had previously limited its inclusion of grief and bereavement to a section titled, Additional Conditions that May be a Focus of Clinical Attention, under the title of “V62.82 Bereavement” (usually accompanied by Major Depressive Disorder) (American Psychiatric Association, 2000, p. 740). A similar term was also proposed for inclusion in the new edition of the DSM, titled prolonged grief disorder, which is defined as persistent yearning for the deceased, a shattered sense of identity, numbness and avoidance, and near or complete functional disability (Boelen, 2011; Prigerson et al., 2009).

After several debated discussions during its development, a grief-related diagnosis was not listed for clinical use in the new fifth edition of the DSM manual. The DSM-5 does also list a section titled, Conditions for Further Study, in the pages following clinical diagnoses (American Psychiatric Association [APA], 2013). The task force associated with the development of this new edition determined that there was “insufficient evidence to warrant inclusion of these proposals as official mental health diagnoses, although future research is encouraged” (APA, 2013, p. 783). A newly termed condition, titled persistent complex bereavement disorder, is included in the present manual (p. 789). The proposed criteria for this condition include persistence of yearning, sorrow, or

preoccupation with the death of a loved one along with at least six characteristics associated with reactive distress and/or social/identity disruption (APA, 2013). The distinction between “normal grief” and persistent complex bereavement disorder is the “presence of severe grief reactions that persists at least 12 months (six months in children) after the death of a loved one with whom he or she had a close relationship” (APA, 2013, p. 790).

Clearly, the field of mental health is craving operational definitions for the grieving process, with a heavy emphasis on complications or dysfunctions within these experiences. Those approaches are yet again focused on documenting deficits rather than studying positive outcomes of grief. Aspinwall and Taylor (1997) noted how researchers are often drawn to study those who are adversely affected by acute or chronic stresses, and that those who successfully navigate these experiences continuously go unstudied. This is simply due to the fact that those who do well in the face of adversity are often those who do not seek or require psychological services. The present study sought to provide a balance in this area of foci included in grief-related research.

The theoretical foundation of the current investigation is not free of these same desires to define normal and abnormal grief reactions. Hogan and colleagues also outlined a common, or normal, trajectory of grief (Hogan et al., 2001; Hogan & Schmidt, 2002). Grief to Personal Growth Theory includes one important element that past models and theoretical approaches tend to stop short from obtaining: personal growth. Authors and subscribers of this theory steer away from focusing solely on the complications of bereavement (e.g., “How did you get this way?”). They make sure to observe and study the other significant portion of this population that makes it through the common



negative components to a transformed place of being (e.g., “How did you get out?”) (Hogan & Schmidt, 2002).

### **Towards a New Direction**

Many of the conditions above highlighted what problematic grief looks like, and how scholars and researchers have attempted to address the identification of indicators or risk factors that lead to such issues. In order to build off of these approaches, research can also uncover ways to prevent these problems by taking a proactive and positive approach to examining the grief experience.

Few studies have been geared towards positive aspects of grief prior to the last two decades (Riley et al., 2007). Psychological research has traditionally focused on negative circumstances, the determinants of such experiences, and the consequences of their presence (Greenglass & Fiksenbaum, 2009). Yet, both past and present day scholars have continued to state that grief is a multidimensional phenomenon (Kaplow, Layne, Saltzman, Cozza, & Pynoos, 2013; Vargas, Loya, & Hodde-Vargas, 1989). Many bereaved individuals experience both positive and negative reactions at levels that are commonly not pathological in any way (Gordon, 2013). Additionally, scholars have also concluded that depression was not an inevitable response to loss (Wortman & Silver, 1989) and that the underlying constructs of the grief experience differ significantly from depression (Jacobsen et al., 2010). More accurately, *most* people go through bereavement that does not lead to depression (Bonanno, 2001). Resilience following loss or trauma is not rare but rather the most common reaction (Bonnano et al., 2011; Butcher et al., 2014). Therefore, when research primarily focuses on dysfunctional aspects of grief, most individuals are excluded in those study implications.

New research about the role of coping in generating and sustaining positive emotions is receiving increased attention (Folkman, Tedlie, & Moskowitz, 2004; Sheikh & Marotta, 2005). Conventional models of grief (e.g., stage models) can disempower grievers by assuming that they must passively negotiate themselves through a sequence of psychological transitions forced on them by external events (Neimeyer, 2001b). Contrarily, a new way of looking at bereavement has opened the scholarly door to discovery of positive components of grief and grieving. These perspectives emphasize an active approach to grief work which can in turn lead to personal growth as a result of enduring and successfully navigating a traumatic grief event. In summary, a primary goal of mental health professionals in reference to working with the bereft should be to support them through the process, minimize the debilitating impact of negative components, and maximize the positive (Gordon, 2013).

### **Strength-Based Approach to Grief**

Fortunately, the dualistic context of categorizing grief as uncomplicated or complicated is no longer carrying as much empirical power as it has in history. Following suit, the 2013 edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) excluded previous grief-related conditions from its listing of clinical diagnoses (American Psychiatric Association, 2013). Currently, grief is more often considered to be placed on a continuum between normal and problematic (as opposed to one or the other), where problems with bereavement are related to the intensity or duration (e.g., 12 months after a loss) of negative reactions (e.g., depressive symptoms) rather than the existence or nonexistence of a set of explicit behaviors or symptoms

(American Psychiatric Association, 2013; Worden, 2002; Horowitz, Wilner, Marmar, & Krupnick, 1980).

Researchers have also begun to conduct more thorough investigations of grief reactions, moving towards an adaptive model of grief, and including considerations for why some people may struggle with the grieving process, others adapt well (Gamino et al., 2000). This new strength-based approach to grief focuses on the potential of positive transformation and personal growth that can result from facing grief. Rather than fixating on a problem, then applying a solution, researchers are capable of facilitating a more comprehensive understanding of the adaptive nature some mourners are capable of creating and applying in their own lives, without needing ongoing therapeutic intervention.

### **Making Meaning of Death**

One vital component of the journey towards personal growth in cases of bereavement is making meaning of the loss (Hogan et al., 1996). Viktor Frankl (1997) is one of the first existential theorists who declared that searching for meaning is the sole purpose in life when it comes to alleviating suffering. Neimeyer (2001b) concurred with this concept, stating that “meaning reconstruction in response to loss is the central process in grieving” (p. 4). This theoretical viewpoint has also been documented in clinical practice. Within the Experiential Theory of Bereavement model (discussed later), the *Making Sense* stage of grief was represented by participants’ desires to make meaning out of the loss of their loved one. It was vital that these individuals could take note of something good coming out of the tragedy, and a feeling that their loved one did not die in vain (Hogan et al., 1996). Expression of thoughts and emotions in response to grief is

an important step in facilitating healthy outcomes; however, this remains an incomplete process without applied meaning (Archer, 2008).

In a noteworthy study by Davis, Nolen-Hoeksema, and Larson (1998), family members of Hospice patients were interviewed and surveyed to assess grief reactions and meaning-making throughout the experience of losing their loved ones and months afterwards. What they found was remarkable. At six-months post-loss, 68% of participants had made meaning of the event, 73% had found something positive as a result, and 80% of those who had reported something positive still spoke to this at 13-months post-loss (Davis et al., 1998).

Other researchers have noted that improving the literature around reconstruction of meaning may offer guidance as to how to assist clinicians with aiding grieving patients who are in need of a recreation of their meaningful narrative of self and the world (Jacobsen et al., 2010). Additional scholars in the area of contextual resilience have highlighted the importance of the interpersonal and intrapersonal processes at play in meaning-making which is anchored in cultural belief systems, roles, and rituals, and is a goal of fulfilling needs within a post-loss environment (Sandler, Wolchik, & Ayers, 2008).

An eloquent description by Robert Neimeyer depicts the importance of meaning making:

I have come to believe that loss, and our personal, relational, cultural responses to it, are definitional of human life, not because of its intrinsic significance—if there is any—but precisely that it initiates a quest for meaning in deeply personal and intricately social terms. (Neimeyer, 2001a, p. xii)

## Personal Growth Models

Each of the grief models presented earlier in this chapter contributed substantially to the scholarly understanding of grief and loss as the concept evolved over the past century. There has also been considerable skepticism regarding the limitations of these models, specifically with the perceived end goal of a return to normal pre-grief functioning (i.e., stability, homeostasis) after griever navigate an emotionally troubled state (Hogan & Schmidt, 2002; Hogan et al., 2001; Neimeyer, 2001b).

More recent transformational views on grief have recognized that many “bereaved adults are quantitatively and qualitatively different than they were prior to loss” (Wright & Hogan, 2008, p. 354). This notion suggests that many people *change* through loss and do not simply return to “how they were before” they experienced the trauma. Leading researchers in this space have noted that an area of bereavement research “showing promise in reconceptualization of the bereavement process to include personal growth as an outcome of suffering” (Hogan & Schmidt, 2002, p. 616).

For decades, existential psychologists have believed in the potential for positive shifts in perspectives on life, self-awareness, and the human condition as the result of facing trauma or crisis, including experiences of grief (Kessler, 1987; Yalom, 2008; Yalom & Lieberman, 1991). Recent studies have shown that if a deceased or dying individual is a parent, survivors were hit with a strong reminder of their own approaching death and other existential questions about life (Benkel, Wijk, & Molander, 2009). The existential notion of choice and responsibility asserts that people are not doomed to passively wait for things to happen, but that they are able to look forward and take

appropriate measures to prevent or diminish probable threat or its adverse outcomes (Gan, Yang, Zhou, & Zhang, 2007; Ouwehand, de Ridder, & Bensing, 2008).

Scholars in the field of bereavement have begun to adopt this charge as well. Robert Neimeyer (2001a) has been an active writer and researcher of a “new wave” of exploring the grief experience. Neimeyer edited a substantial 17-chapter book published by the American Psychological Association in 2001 titled, *Meaning Reconstruction and the Experience of Loss* (Neimeyer, 2001a). In the opening chapter of this book, Neimeyer stated that scientific studies have failed to support the definitive nature of emotional linear stages or processes outlined by past models, including clarity around what constitutes an end-point in the grief process (Neimeyer, 2001b). Neimeyer warned the field that counselors are consistently using “outmoded and increasingly suspect” models of grief in their work with clients (Neimeyer, 2001b, p. 2). As a suggestion for researchers, Gamino, Easterling, and Sewell (2000) began a discussion of an *adaptive* model of grief. Models aligning with these suggestions are discussed next.

### **Experiential Theory of Bereavement**

In the same time period that the DPM was gaining popularity, other scholars were attempting to explore and create a new theory of bereavement based on the full course of experiences (from notification of illness/death and forward) of nonclinical individuals as they grieved the death of a loved one (Hogan et al., 1996). These researchers used a grounded theory approach and conducted open-ended interviews with 34 adults who had experienced the death of a loved one.

Hogan and colleagues (1996) discovered that regardless of cause of death (e.g., chronic illness or suicide) or the relationship to the deceased, the process of bereavement

seemed to follow a consistent pattern among participants (Hogan et al., 1996). The concluding model does mirror a similar expression of previous stage models, but the authors make sure to address that while the components of the model “appear to occur linearly, many of the phases overlap and recur as the bereavement process changes from consuming the survivor to re-experiencing episodes of grief interspersed with periods of relative peace and relief” (p. 48). The workings of the model include: Getting the News/Finding Out, Facing Realities, Becoming Engulfed with Suffering, Emerging from the Suffering, Getting on with Life, and Experiencing Personal Growth (Hogan et al., 1996). Here, grief is extended from a return to homeostasis to a transformation or bettering of life via personal growth.

The component of *Getting the News* in this model includes the family’s being notified of a life-threatening disease or illness present in their loved one. This phase includes getting the diagnosis, dedicating resources (e.g., making a schedule so the person is always attended to by a family member), negotiating treatments, and ultimately losing the battle. This portion of the model concludes with the notification of the person’s physical death. The entry point of the current study was within the “losing the battle” window. The alternative entry to this point of the model, *Finding Out*, pertains to notification of a sudden death (e.g., accident, suicide, homicide) where the family member is first learning of his or her role as a survivor (Hogan et al., 1996). A strength of this model is the inclusion of the anticipatory grief component (i.e., “losing the battle”). This framework illustrates a holistic conceptualization of grief, ultimately transcending to personal growth for the bereft (discussed soon), which explicitly includes individuals who are facing an inevitable death of a loved one. This is an important advancement in

the field of counseling and mental health, as it has not yet been well-researched, and encompasses much of the setting for the current study.

The next phase of this model, *Facing Realities*, involves an experience of numbness and confusion as the certainty of the loss impacts the bereaving person. This component ends with the disregulation fading off, leaving the individual with an intense experience of pain. Next, the griever experiences *Being Engulfed with Suffering*. The authors title this the “essence of grief” where the individual confronts feelings of despair and misery, ultimately exiting with renewed hope and meaning (p. 53). Individuals begin *Emerging from the Suffering* as they actively engage in the grief process by letting go and finding more good days than bad days. Next, while individuals enter the *Getting on with Life* phase of this model, they make new commitments to finding happiness and find more motivation and confidence that their experiences are getting better (Hogan et al., 1996).

Finally, and most importantly given the current study’s focus, the bereaving begin *Experiencing Personal Growth*. The authors (Hogan et al., 1996) stated that personal growth was experienced to some degree in all phases of the model by participants. This will be important to remember, as the current study took place at a juncture early in the model (i.e., losing the battle). Personal growth was most evident after the emergence of the essence of grief had begun (Hogan et al., 1996). The authors described personal growth as an outcome of the deep introspection during the grief process, as individuals searched for and found meaning in the loss. Personal growth here was described as a transformation into becoming more caring and connected to others, along with becoming less judgmental and more compassionate overall (Hogan et al., 1996). The description



highly resembles the description of posttraumatic growth described by Tedeschi and Calhoun (2009), which reflected an increased appreciation for life, more meaningful interpersonal relationships, a change in priorities, and an increased sense of personal strength as a result of individuals' facing a highly challenging crisis or life event. The similar nature of these two growth terms is explored in more detail later in this chapter.

The Experiential Theory of Bereavement led scholars to more fully recognize that personal growth and hope for a more meaningful life despite profound experiences of grief is possible and deserves literary attention (Wright & Hogan, 2008). Stemming from grounded theory, researchers took another step to confirm and validate these ideas. Grief to Personal Growth Theory emerged directly from the implications discovered in their research, as scholars attempted to further define the trajectory of the bereavement process and capture it in a psychometrically sound manner (Wright & Hogan, 2008). Grief to Personal Growth Theory guided the current study and is explored next.

### **Grief to Personal Growth Theory**

As detailed above, bereavement researchers of the 21<sup>st</sup> century have transitioned from viewing grief as a return to normalcy or generalized acceptance towards the belief that not only can people be transformed by grief, but they are capable of attaining personal growth (Wright & Hogan, 2008). In other words, people have the potential to be holistically transformed by experiences of grief, emerging as more functional, tolerant, and compassionate human beings (Gamino et al., 2000; Hogan et al., 1996; Tedeschi & Calhoun, 2009). Past models often fall short of a transformative experience and posit a goal of returning to pre-loss functioning or acceptance (Bowlby, 1969; Freud, 1917; Kübler-Ross, 1969).

Grief to Personal Growth Theory declares that personal growth is not only a possible outcome of grief, but that it is a likely occurrence if certain experiences and conditions are met. Hogan and Schmidt (2002) built on past works of Hogan et al. (2001) and described a holistic path through grief. The journey is thought to begin with feelings of despair, detachment, and intrusive thoughts (termed despair, detachment, and disorganization factors in the Hogan Grief Reaction Checklist) (Hogan & Schmidt, 2002). The individual then either reaches a point where social support can be accepted or social support is offered by others. By sharing their experiences with at least one nonjudgmental person, the bereft begin to develop meaning in their grief. These new reconstructions of meaning can qualitatively change the individual's self-identity and overall worldview, leading to personal growth. Individuals are then more compassionate, forgiving, and tolerant of themselves and of others than they were before their perceived loss (Hogan & Schmidt, 2002).

Hogan et al. (2001) reflected upon the previously described attempt by professionals to distinguish between normal and abnormal trajectories of grief. They stated that many of these investigations were hampered by researchers' focus on measures that track dysfunction (e.g., anxiety and depression). Professionals working with the bereaving aim to identify a common trajectory of grief because it helps identify grief reaction factors that lead to a desired outcome (Maciejewski et al., 2007). The Hogan Grief Reaction Checklist (HGRC) is designed to assess individual grief reactions as individuals follow a normal trajectory of grief as it evolves over time (Hogan et al., 2001).

The trajectory theorized by the model is thought to outline reactions of grief experiences by bereaving individuals on a path to reach personal growth: a vital component of the grieving process (Hogan et al., 1996; Hogan et al., 2001; Hogan & Schmidt, 2002). The measures of the HGRC were derived from qualitative experiences of the bereft. The items assessing negatively-associated states of being (e.g., despair, detachment) were constructed from these preliminary studies with actual griever as opposed to variations of measures assessing clinical dysfunction (e.g., Beck's depression inventory). The components of the resulting model of core grief include: despair, detachment, disorganization, social support, and personal growth (Hogan et al, 2001; Hogan & Schmidt, 2002; Wright & Hogan, 2008).

### **Social Support and Growth**

Hobfoll (1989) has received considerable recognition for his conservation of resources theory, in which he posited that individuals who have a surplus of resources can use them proactively to offset future net losses. In the context of grief, social support can be considered a primary resource, which has been shown to protect the bereaving from both physical and mental duress (Benkel et al., 2009). Support seeking has been recently validated and shown to be positively related to personal growth in assessing individual coping behaviors during instances of grief and loss (Riley et al., 2007).

As stated previously, Worden (2002) believed that several variables have profound mediating effects on the experience of grief. Worden asserted that the degree of emotional and social support from others plays an integral role in the mourning process. He emphasized four important characteristics of the social support variable: (a) availability, (b) satisfaction, (c) involvements, and (d) religious resources and ethnic

expectations (Worden, 2002). He stated that historically, studies have shown that those who have “inadequate or conflicted social support” do “less well” during times of bereavement than those who have fulfilled experiences in these areas (Worden, 2002, p. 43). Satisfaction with support was defined as time spent with others and utilization of these systems as needed. Social role involvement was defined as multiple roles associated with support systems (e.g., employee, friend, relative, daughter, etc.) and were said to increase adjustment to loss. Finally, religious resources and ethnic expectations were described through consideration of the various subcultures and guidelines that fuel grieving rituals across diverse cultures (Worden, 2002).

Social support has demonstrated mediating and empowering abilities across various empirical studies. In a study of Holocaust survivors (e.g., a combination of intense trauma and grief), data showed that social support significantly predicted personal growth (Lev-Wiesel & Amir, 2003). In a grounded theory study of bereavement, survivors found solace in talking to others who had gone through similar experiences, and in turn, some felt this support aided them in asking for help from others and providing reciprocal support to outside parties (e.g., speaking at trainings, support groups, etc.) (Hogan et al., 1996). In a study of bereavement and relationship roles, participants stated that conversations with trusted others allowed them to talk about their feelings and memories. These individuals emerged feeling as if they better understood themselves, their reactions, and those of others (Benkel et al., 2009). In three empirical investigations assessing proactive coping (discussed later in this chapter), social support and high proactive coping scores contributed significantly to an increase in a positive state following significant life stressors (Greenglass & Fiksenbaum, 2009).

Grief to Personal Growth theorists also recognize the mediating potential of social support. According to this framework, griever who utilize social support may discover new meaning in their experience and attain stronger purpose in life (Wright & Hogan, 2008). Individuals who do not access social support may become mired in their grief experiences (Hogan & Schmidt, 2002), and complete lack of social support is often a characteristic associated with delayed and disenfranchised grief (Gamino et al., 2000; Worden, 2002).

Importantly, what is considered effective or sufficient social support is not synonymous with a large quantity of available supporters (e.g., family, friends, co-workers, community members). According to Hogan and Schmidt (2002), the availability of at least one person who will take the time to listen to the bereaving individual can significantly facilitate his or her experiences of personal growth. Individuals may gain access to this one supportive person (or more) through different means. These people may approach the griever and offer support, or the griever may have to proactively activate this contact (e.g., to cope with anticipatory grief).

### **Proactive Coping**

Stressful circumstances can lead to disappointment, adverse emotions, or various other setbacks. The term coping is often described as an individual's thoughts, behaviors, and ability to internally and externally engage in activities that control, endure, or reduce current environmental stresses perceived to represent harm, threat, or loss (Folkman & Lazarus, 1985; Folkman et al., 2004). Perceived in this way, coping is used reactively in order to compensate or accept the stressful event, and is used in response to an assessment that certain goals have been lost or significantly threatened (Greenglass &

Fiksenbaum, 2009; Schwarzer & Luszczynska, 2008). It is often experienced through intense negative emotional reactions, where coping first must involve down-regulating the emotions that may interfere with instrumental resources. If the emotional reappraisal is successful, positive emotions can predominate. If the reappraisal is unclear or unsuccessful, negative emotions can prevail for an extended amount of time (Folkman et al., 2004).

Many, if not most, past research studies assessing the impact of coping have focused on overcoming or coping with stressors that have occurred in the past (Folkman et al., 2004). Yet, stress reactions can occur from the perception of stress manifesting in the near or distant future (Schwarzer & Luszczynska, 2008). A promising new development in coping investigations concerns how people cope in advance to prevent or reduce to full-blown negative impact of stressors, encompassing multiple positive functions (Folkman et al., 2004; Greenglass & Fiksenbaum, 2009). Theorists have suggested that *proactive coping* can “promote growth” through a positive reframe of stress as a challenge or opportunity rather than a threat that is potentially catastrophizing (Greenglass, 2002; Vernon, Dillon, & Steiner, 2009, p. 118). Research on recovery after extreme periods of stress is often focused on identifying risk factors that may lead to a decline in functioning for these individuals (Cieslak et al., 2008). It is also suggested that researchers start identifying “resource factors” that enhance the individual’s well-being despite inevitable encounters with stress (Cieslak et al., 2008, p. 451).

### **Defining Proactive Coping**

Proactive coping was defined and grounded in Proactive Coping Theory, along with the Proactive Coping Inventory (PCI), the most widely used instrument assessing this construct (Schwarzer & Luszczynska, 2008). The theory postulates that individuals are capable of reframing risks associated with significant stressors into challenges that can be managed to promote personal growth and overall improvements in one's quality of life (Schwarzer & Luszczynska, 2008). The theory also proposes that individuals are capable of promoting desired future outcomes through focusing on optimism and personal growth opportunities (Bode, de Ridder, Kuijer, & Bensing, 2007). In other words, "people strive for more resources, desire to maximize gains, and build-up resistance factors either to ward off future crises or grow and activate their capabilities for their own sake" (Schwarzer & Luszczynska, 2008, p. 22). Scholars have begun giving attention you facilitative factors that lead to these positive traits and have declared that while the study of relationships between proactive coping and positive emotion is "one of the most exciting developments in coping research" (Folkman et al., 2004, p. 767), there is a paucity of this type of research taking place in trauma investigations (Vernon et al., 2009).

### **Other Forms of Coping**

Other coping dispositions that appear to have a proactive nature, in fact, mean something entirely different than proactive coping itself. Anticipatory coping remains focused on risks associated with threat in the near future, rather than goal management or personal empowerment (Schwarzer & Luszczynska, 2008). There is a marked difference between coping to prevent adversity related to a specific event (i.e., anticipatory coping)

and coping to promote positive personal strength despite what stressors an individual may experience in the near or distant future (i.e., proactive coping). Proactive coping has also been shown to correlate positively with constructs such as optimism (Uskul & Greenglass, 2005) but has a focus that is theoretically and empirically distinct from optimism, hope, mastery, and control (Vernon et al., 2009). Proactive coping intertwines cognitions, skill development, and actions whereas traits such as optimism hold a purely cognitive focus (Vernon et al., 2009).

Preventative coping also differs from proactive coping, as it pertains solely to distant future stressors, building up “just in case” resources, and is used as a failsafe to prevent a sense of threat rather than as a generalized improvement on outlook in life (Schwarzer & Luszczynska, 2008). An example of preventative coping could be a couple who engages in an expensive process to extract and freeze their ovum and sperm in order to prevent possible infertility threats later in life. A proactive coping couple would generate and sustain social support resources and an overall sense of personal acceptance and worth, both of which would serve them well if such an event did occur in the future. A primary differentiation between preventative and proactive coping is based on worry. Both styles develop skills and resources, but preventative copers see stress as threatening and attack it with a high level of worry and anxiety. Proactive copers see stress as challenging (and an inevitable part of life) and maintain a lowered level of worry and anxiety (Schwarzer & Luszczynska, 2008). The stressor under investigation in the current study was anticipated death of a loved one. Those faced with anticipatory grief due to an expected loss likely could not have prevented these events, although those with a



proactive coping disposition may recognize future losses and make attempts to improve positive development by improving self-regulatory capacities (Bode et al., 2007).

### **An Active Process**

Scholars specializing in studies of proactive coping have emphasized one crucial component of this construct that distinguishes it from similar terms. Proactive coping is always in an active stage, and it is not specified to address one particular stressor or appear for only a temporary time (Aspinwall & Taylor, 1997). In other words, coping to prevent adversity or address one unique situation is much different than coping to promote overall personal growth throughout a lifetime (Schwarzer & Luszczynska, 2008). By definition, *proactivity* has been described as the willingness and ability to take action and influence a situation to one that is more advantageous to the individual (Kirby, Kirby, & Lewis, 2002).

Individuals who have prescribed to active coping dispositions utilize skills such as planning, taking direct action, and increasing coping resources which have been related to personal growth and positive change following bereavement in recent research (Riley et al., 2007). Active coping individuals are proactive in assessing how to interact with their environment and make efforts to shape this interaction accordingly. Contrarily, passive or avoidant copers are generally shaped by their environments and have to adapt to what comes at them to endure their circumstances (Aspinwall & Taylor, 1997; Kirby et al., 2002). Such as in the case of anticipatory grief, survivors do not necessarily have much control over their environment. Yet, if these individuals completely disengage from this stressor, they are unable to take appropriate measures to offset stressors at the right moment when that is possible (e.g., accepting a phone call from a supportive friend)

(Aspinwall & Taylor, 1997; Ouwehand, de Ridder, & Bensing, 2008). In summary, “distress is mediated by one’s coping choices,” coping styles vary from person to person, and research supports that more active styles are more effective than passive styles (Worden, 2002, p. 42).

Individuals who elicit a more active stance in adapting to the foreseen impact of grief, such as accumulating interpersonal and environmental resources, have shown to produce more incidents of personal growth and other positive outcomes (Attig, 1991; Doka, 2007b; Gamino, Sewell, & Easterling, 1998; Gamino, Sewell, & Easterling, 2000; Hogan et al., 1996; Yalom & Lieberman, 1991). In their description of an experiential stance towards bereavement, Hogan et al. (1996) noted that griever “who were *actively engaged* in grief began to recognize that they had experienced a turning point in their despair and realized they were emerging from their suffering” (p. 67). Active coping is described as planning, taking direct action, and increasing overall coping efforts (Riley et al., 2007). Originators of research in proactive coping state that “proactive coping is an active coping style,” with the addition of “strong elements of internal control and strategies that are based on individual initiation and self-determination” (Greenglass, 2002, p. 21).

### **General Self-Efficacy Similarities**

Given the similar nature of the constructs, proactive coping has a “theoretical overlap” with general self-efficacy (Vernon, Dillon, & Steiner, 2009, p. 118). General coping self-efficacy can be explained as an individual’s belief that he or she is capable of coping with stressful environmental demands (Cieslak et al., 2008). These general positive beliefs have been shown to improve the emotional impact of being diagnosed

with HIV (Luszczynska, Sarkar, & Knoll, 2006). Past literature has also shown that individuals experiencing current or past loss may also exhibit lowered levels of self-esteem and efficacy (Worden, 1996). These examples illustrate a further need to explore constructs such as these in new ways.

Self-efficacy theory posits that strong positive relationships exist between how an individual believes he or she will fare through encountering a specific stressor and his or her competence in doing so (Bosscher & Smit, 1997). Additionally, Bandura (1997) has made strong claims stating that assessing actual competence is not accurate. He implied that individuals who did not succeed in overcoming a stressor may have not even attempted due to an underestimation of their ability. The crucial role of perceived self-efficacy and optimistic self-beliefs in addressing adversity entirely is crucial (Bandura, 1997). Perceived self-efficacy and optimism can be considered crucial prerequisites for coping with all kinds of stressful events (Schwarzer & Taubert, 2002). Additionally, perceived ability to overcome future setbacks aligned well with the anticipatory nature of the current investigation.

Similarly, general self-efficacy can be described as an individual's confidence in coping with a broad range of challenging situations or events (Luszczynska, Scholz, & Schwarzer, 2005). The term encompasses recovery self-efficacy (optimistic belief in competency to overcome obstacles), coping self-efficacy (optimistic beliefs in skill to cope with situations at hand and accumulate resources for future use), and action self-efficacy (optimistic belief that an individual can activate and sustain a difficult course of action) (Schwarzer & Taubert, 2002). Generalized self-efficacy has the potential to be a

robust predictor of a variety of positive health behaviors when used in a generalized sense, as opposed to one specific stressor or event (Luszczynska et al., 2005).

The concept of general self-efficacy aligns closely with the proactive coping construct, which states that individuals fundamentally change the process of risk management into goal management, accumulate a broad range of resources in order to promote personal growth despite potential adversity (Aspinwall & Taylor, 1997; Schwarzer & Luszczynska, 2008). Undeniably, proactive coping shares many similar characteristics with general self-efficacy (Vernon, Dillon, & Steiner, 2009, p. 118). The strongest similarity can be explained as an individual's belief that he or she is capable of coping with stressful environmental demands (Cieslak et al., 2008).

Measures assessing both proactive coping and general self-efficacy were included in the current study and are described further in Chapter III. Ultimately, the current investigation was geared towards gaining a better understanding of the resource factors that contribute to an experience of personal growth as a result of hearing of an inevitable death of a loved one. As stated in the previous chapter, hearing of an impending death can be considered a traumatic event, although that perspective is rarely studied under such an assumption. Hence, posttraumatic growth was a construct included in the current study.

### **Posttraumatic Growth**

The concept of posttraumatic growth first made scholarly attention with the publishing of Tedeschi and Calhoun's (1996) article describing the "positive legacy of trauma" (p. 455). Aligning with the previous discussion involving the deficit versus strength-based approaches to grief research, these authors also stated how researchers

have extensively studied the negative effects of trauma with far less scholarly attention given to the positive effects that can occur (Tedeschi & Calhoun, 1996). Robert Neimeyer (2001a; 2001b) has been a strong voice in the 21<sup>st</sup> century grief movement, and he has emphasized the need to enhance the appreciation of posttraumatic growth as a possible outcome of grief.

Posttraumatic growth is described as a change, or fundamental shift, in awareness, knowledge, and overall abilities that can occur as a result of enduring a traumatic event (Tedeschi, Park, & Calhoun, 1998a). Posttraumatic growth can enable individuals to recognize and appreciate positive changes in their interpersonal relationships, self-perception, and general attitude towards life (Sheikh & Marotta, 2005; Tedeschi et al., 1998). Individuals experiencing such growth may also witness an adjustment in priorities, and increased sense of personal endurance, and a fuller existential life (Tedeschi & Calhoun, 2009).

Chapter III introduces instruments used in the current study. The Posttraumatic Growth Inventory (PTGI) is listed as a primary measure of posttraumatic growth assessed in anticipatory grievers. The instrument has been broken down into five subscales; however, researchers have stated that these factors are not necessarily distinct and that a total score on this inventory can be used to assess a “generalized growth component” within participants’ responses (Sheikh & Marotta, 2005, p. 74). Posttraumatic growth can be viewed as both an outcome and an ongoing process as an individual grapples with a traumatic event (Tedeschi & Calhoun, 2009; Walter & Lopez-Baez, 2008).

## **Personal and Posttraumatic Growth**

The present study examined the comparable and highly similar nature of the personal growth grief reaction factor (Hogan et al., 1996; Hogan et al., 2001; Hogan & Schmidt, 2002; Wright & Hogan, 2008) and the posttraumatic growth construct (Tedeschi & Calhoun, 1996; 2004; 2007; 2009; Tedeschi et al., 1998a; Tedeschi et al., 1998b). Both concepts represent a holistic sense of growth and a “better than before” attitude towards the world following a traumatic experience (e.g. grief), as indicated by Grief to Personal Growth Theory (Hogan et al., 2001; Hogan & Schmidt, 2002; Wright & Hogan, 2008).

Tedeschi and Calhoun (1996; 2004; 2007; 2009) have described over many years four dimensions of posttraumatic growth. These include (a) positive changes in ways of relating to others (e.g., comfort with increased intimacy), (b) new understandings of the self as stronger and more capable (e.g., less constant worry), (c) increased appreciation for normal everyday living (e.g., shifting of priorities), and (d) growth in spiritual, religious, and existential issues (e.g., changes in internal philosophy). These dimensions align with the outcome of personal growth in many ways. Hogan and colleagues (1996) initiated the construction of the Experiential Theory of Bereavement. From this theory, Grief to Personal Growth Theory emerged (Hogan et al., 2001; Hogan & Schmidt, 2002; Wright & Hogan, 2008). Personal growth following loss, according to these authors, describes individuals becoming more resilient and understanding of themselves, along with becoming more understanding and empathetic towards others (Hogan et al., 1996).

Participants in the same study (Hogan et al., 1996) indicated that they saw the raw reality that death could occur at any time and began to live more intentionally and

deliberately in regards to people they loved. They reassigned priorities, developed closeness with others, and recognized that life was precious (Hogan et al., 1996). This same personal growth construct was later included in the Hogan Grief Reaction Checklist (described in the next chapter) in which individuals are assessed on spiritual and existential awareness, increases in tolerance, forgiveness, compassion, and hopefulness (Hogan et al., 2001). In a study of family members surviving the death of Hospice patients, nearly 75% found something positive through their experiences. Participants described their insight as learning something important in the loss, learning something about themselves and others, and about the meaning of life (Davis et al., 1998).

As Chapter III illustrates, both personal growth and posttraumatic growth were assessed separately, but within the same research questions. The approach was an attempt to determine whether or not these two terms are assessing the same phenomenon or if there are discriminant elements within each. Results of these analyses assisted in development of a clearer understanding of the similarities and uniqueness of two terms within the same field that share nearly identical language in the existing literature. These outcomes are illustrated in Chapter IV, and the implications are described in Chapter V.

Posttraumatic growth is almost exclusively studied in bereavement investigations after a death has occurred. The idea assumes that the death itself is considered the traumatic event beginning the facilitation of growth. The current study proposed that the initial shock of “hearing the news” of the terminal condition in a loved one’s diagnosis can, and should, be considered a traumatic event as well. Scholars have stated that posttraumatic growth can be viewed as both an outcome and an ongoing process (Tedeschi & Calhoun, 2009; Walter & Lopez-Baez, 2008). The first grief model that

included personal growth as a plausible outcome of suffering also made room for survivors who were “losing the battle” with a loved one’s illness (Hogan et al., 1996). During the preliminary investigations which led to the construction of the Experiential Model of Bereavement, these authors also documented how personal growth was experienced to some degree in all phases of the model by bereaving participants (including pre-loss) (Hogan et al., 1996). The first research question assessed whether or not growth can occur prior to death of a loved one appears appropriate as individuals work through a process of anticipatory grief. The window between notification of a medically inevitable loss and a death is a unique time of bereavement. Anticipatory grief is explored next, including rich history foundation history surrounding the topic.

### **Anticipatory Grief**

The chapter began with a detailed description of various grief models dating back to the early 20<sup>th</sup> century through the end of that millennium. Many of these originating theorists constructed their models post-loss or with the dying individuals themselves. The bereaving studied in those contexts had already suffered a significant loss in their lives (e.g., physical death of a loved one) or were preparing for their own physical death. Far fewer studies have dedicated attention to the grieving process experienced by friends or family members before the event of death occurs. Individuals suffering from an anticipated loss, such as hearing of a family member’s terminal illness, also deserve scholarly time and attention.

Even in recent years, scholars have stated that when family members face an impending death of a loved one, “their period of bereavement is clearly delineated by the death” (Jacobsen, Zhang, Block, Maciejewski, & Prigerson, 2010, p. 267). Such an



assumption is not always true. In cases of terminal illness, oftentimes individuals close to the ill begin to experience a form of the grieving process prior to the death (Sweeting & Gilhooly, 1990). Anticipatory grief is defined as the phenomenon that occurs through growing awareness of an inevitable loss and through recognition of an associated series of losses in the past, present, and future (Corr, 2007; Rando, 2000a). These three foci of losses over time imply that an individual will encounter experiences of grief that have already occurred (e.g., loss of energy in caring for the ill person), others in process (e.g., making the decision to contact a Hospice program), and others in the future at any point in time (e.g. the actual death) (Corr, 2007). Historically, anticipatory grief has been examined most often in studies assessing parental grief with children who have a terminal illness and with adults whose partners are facing irrevocable death (Fulton, 2003; Fulton & Gottesman, 1980).

Scholars interested in the construct of anticipatory grief have often defined it as similar in theory, yet conceptually distinct from post-death grief experiences. Anticipatory grief experiences have been illustrated to correlate with stages of post-death mourning as individuals cope with the loved one's advancing illness and prepare to face an inevitable death (Lindemann, 1944; Sweeting & Gilhooly, 1990). Contrary to early belief, anticipatory grief is not intended to remove or reduce the existence of post-death grief (Fulton, 2003). Instead, failures in anticipatory mourning (e.g., unfinished business, premature detachment, etc.) have the tendency to predispose individuals to poorer bereavement outcomes following the death (Rando, 2000a). The distinction draws attention to examining ways in which individuals navigate anticipatory grief experiences all the more crucial. Similarly, it seems logical to assume that individuals who are

experiencing personal growth throughout the anticipatory bereavement process (e.g., changes in priorities, greater existential awareness) would make choices that facilitate remedying these potential failures in an attempt to positively reframe a stressor (i.e., proactive coping) into an opportunity for further growth (Greenglass, 2002; Vernon, Dillon, & Steiner, 2009).

Fulton (2003) asserted that anticipatory grief is not something that is simply begun prior to death, while later continued after death. Anticipatory grievers may detach or separate from their loved one to some degree; however, their assumptive worldview is what is in primary need of mourning (e.g., assuming they have many years left with this individual), making complete detachment from the dying unnecessary (Rando, 2000a). Corr (2007) distinguished anticipatory grief as the response to an expected death or loss, while post-death grief mirrors the reality of that loss. In other words, while grief along the trajectory of terminal illness through physical death may exist on a continuum, pre-death grief and post-death grief differ in both duration and form (Fulton, 2003). Kübler-Ross and Kessler (2005) noted that while an individual may experience a particular grief trajectory during anticipatory bereavement, he or she will go through another unique experience of grief post-loss. They stated, “Anticipatory grief has its own process; it takes its own time” (Kübler-Ross & Kessler, 2005, p. 2). There is clearly a need for the two experiences to be studied separately, and in order to examine where implications between them are similar or distinct.

### **Origins and History**

Much of the original credit for introducing the concept of anticipatory grief into the field of scholarly research is given to Erich Lindemann (1944) for his article titled,

“Symptomatology and Management of Acute Grief” (Corr, 2007). In his work, Lindemann (1944) positioned that “anticipatory mourning occupies the interesting position of being an arena of significant controversy as well as one in which relatively minimal research exists” (Rando, 2000b, p. 17). At the time, Lindemann (1944) based much of his observations on cases of wartime separation. He documented how individuals appeared to be so anxious about the potential death of their loved one, they endured all post-death phases of grief and mourned the person they expected to die before it actually happened (Lindemann, 1944; Rando, 2000b).

The 1970s brought on a new expansion of interest in the phenomenon of anticipatory grief with the publication of “A Psychosocial Aspect of Terminal Care: Anticipatory Grief” (Fulton & Fulton, 1971). In their work, Fulton and Fulton (1971) described the process of anticipatory grief by surviving family members as occurring through a rehearsal of the death, adjustment to the consequences of the loss, and a lessened negative reaction to the death itself (Rando, 2000b). Less than a decade later, Fulton and Gottesman (1980) published “Anticipatory Grief: A Psychosocial Concept Reconsidered.” These authors critiqued the faulty assumptions in which traditional theories of grief rest (e.g., such as notions that grief is a comparable experience, grief is linear) and highlighted the importance of anticipatory grief as being an individual psychosocial construct that varies in relationship to the dying and the cultural values of the bereaved (Fulton, 2003; Fulton & Gottesman, 1980).

Schoenberg, Carr, Kutscher, Peretz, and Goldberg (1974) were the first to publish a comprehensive book devoted to the anticipatory grief experience, appropriately titled, “Anticipatory Grief.” The substantial 41-chapter book discussed newfound phenomenon

from a multidisciplinary perspective (Rando, 2000b). In the same year, Glick, Weiss, and Parkes (1974) published their study titled, “The First Year of Bereavement.” Experiences of griever who anticipate a loss in comparison to those who experience a death that is sudden (e.g., suicide, accident) were explored (Glick et al., 1974; Rando, 2000b). The differences between pre and post-death grief were discussed earlier, and the work by Glick and colleagues (1974) marked the additional distinction between grief that is anticipated and grief that is not. During the construction of the Experiential Theory of Bereavement, researchers stated that family members whose loved one died due to illness described becoming a survivor twice. The first was through the illness-to-death phase (i.e., dying phase), and the second was the after-death phase (Hogan et al., 1996).

Organizations specializing in the dying process and anticipatory grief began to form two decades after Lindemann’s original contributions. In 1967, Dr. Cicely Saunders founded the first ever Hospice program in London, England (Rando, 2000b; Saunders, 1978). Saunders worked alongside attachment theory contributor, Colin Parkes, to develop these palliative care programs serving the physical and emotional health of the dying and the bereaving families (Bretherton, 1992). Soon after, these agencies were constructed in the United States and today can be found in nearly any country across the globe.

### **Hospice and Palliative Care Agencies**

Palliative care is a term meant to describe the fulfillment of physical, psychological, social, and existential needs of terminal patients as well as support for loved ones during their grieving and adjustment process (Benkel et al., 2009). As stated, Cicely Saunders opened the first ever Hospice (“hospice” meaning, shelter) organization

in London, England in the late 1960s (Hospice Foundation of America Annual Report, 2011, p. 12). Saunders joined with attachment theorist, Colin Parkes, and used this theory in the development stages of these organizations (Bretherton, 1992). Saunders and Parkes felt that a proper counter to the common negativity surrounding grief reactions was a new consideration of grief as a process toward a new identity, rather than a static and inescapable state (Bertherton, 1992). Such an idea reflects the process of meaning-making and personal growth mentioned throughout the present chapter.

Hospice organizations made their way to the U.S. in 1982, and are open to provide services in alignment with Medicaid/Medicare in 45 states (Hospice Foundation of America Annual Report, 2011). In 2011, one out of every three terminally ill people, or 1,300,000 individuals in the United States, utilized Hospice programs to assist them and their families with this process (Hospice Foundation of America Annual Report, 2011). Writers of that year's annual report state that "as the baby boomers continue to age, that number is expected to rise every year in the current decade and beyond" (Hospice Foundation of America Annual Report, 2011, p. 12). Such rising numbers carry the implication that anticipatory grievers will continue to drastically increase as well. There will undoubtedly be innumerable friends and family members connected to the people receiving end-of-life palliative services in the future.

Hospice programs are a keen example of a strength-based approach to assisting in the grieving process. Families who hire Hospice staff are often experiencing anticipatory grief, and they are met by personnel who believe that death and loss do not need to be approached or experienced in a negative manner. Hospice organizations aim to provide quality-of-life focused palliative care to patients who are within their last six months of

life and/or when their illness is no longer responsive to medical treatments (Hospice Foundation of America, 2011; Saunders, 1978). The Hospice philosophy emphasizes accepting death as a final stage of life, and that this process can be experienced in a dignified, as pain-free as possible, manner surrounded by loved ones and trained support staff (Saunders, 1978). Family members are at the core of the Hospice team, and they are invited to become a central part of all decisions made to assist in their loved one's care (Hospice Foundation of America, 2011).

### **Research with Anticipatory Grievers**

The current investigation focused primary points of contact with anticipatory grievers through Hospice or palliative care programs. Due to the sensitive nature of many anticipatory grief experiences, it was deemed appropriate to collaborate with organizations that already had contact with these individuals and could potentially offer more continuous ongoing support and counseling services if negative reactions were to occur as a result of participation. Hospice programs are in place to provide a dignified and professional dying experience for patients and their families (Saunders, 1978). These guidelines include upmost respect for family privacy and confidentiality.

Typically, palliative care programs that participate in empirical investigations involving their patients or the patient's loved ones are accessed at an individual or local level, through convenience sampling. For example, in a phenomenological qualitative study of anticipatory grief, Duke (1998) gained approval for her study from a single unnamed palliative care unit. Duke was given restricted access to the unit's database information (protected by the Database Protection Act), and the bereavement service

selected the four participants for the study whom the staff felt would be least negatively affected by sharing such personal stories (Duke, 1998).

In that same year, Davis and colleagues (1998) published a longitudinal mixed methods study involving bereaving family members of Hospice patients. These researchers gained approval from 11 Hospice organizations in one Western geographical area and were given permission by the directors of these programs to place a letter of interest in the welcoming packets given to Hospice families (Davis et al., 1998). The letter briefly introduced the study, and the staff member who distributed the packets explained the study in greater detail, asking individuals if it would be acceptable for the researchers to call them. Of those who expressed interest and were contacted by the research team, 80% agreed to participate, and 455 total people participated in at least one of the five data collection periods posed by the research team (Davis et al., 1998).

These two empirical examples illustrate the importance of obtaining personal trust and buy-in at the individual program level, as opposed to attempting to conduct a large-scale random sample. Lastly, Hospice settings may make for an ideal setting to continue the exploration and validation of Grief to Personal Growth Theory. Hogan and Wright (2008) stated that the idea of personal growth being possible as a result of suffering through the anticipated loss of a loved one has the potential to bring comfort to those close to the experience in Hospice settings (e.g., family members, staff, etc.).

The Hospice Foundation of America (2013) states that individuals affected by bereavement may access free bereavement counseling, mainly through support groups, for one year after the patient enters into care via the Medicare Hospice Benefit. Additionally, the Foundation's support group webpage lists suggestions for additional

support group contacts outside of Hospice agencies (Hospice Foundation of America, 2013). Within these recommendations, the webpages addresses the “more and more common” opportunity to join online grief support groups. Stemming from these recommendations, the opportunity to participate in this study was promoted using several online methods (e.g., website, agency page postings, etc.). Nearly all of these methods (aside from social media) required proof of IRB approval prior to displaying the study information. The sampling methods are described in more detail in the next chapter.

### **Conclusion**

The current chapter examined the history of past grief models and the deficit approach in assessing grief-related dysfunction. A strength-based approach considering meaning-making and growth as a process and outcome of grief was introduced. The origination of Grief to Personal Growth Theory was discussed, along with the specific role social support plays in mediating between experiences of grief and personal growth. The constructs of proactive coping, general self-efficacy, and posttraumatic growth were further introduced and explored. The evolving history of anticipatory grief was also discussed along with the implications for studying these experiences with individuals contacted through Hospice or other palliative care agencies and through other online methods (e.g., website/agency postings).

The next chapter focuses upon the methodology utilized in the current study. The research design and full description of the methodological procedures are discussed. All instruments, their empirical histories, and current study reliability estimates are presented. Finally, a description of the research questions is highlighted along with the empirically supported analytical strategies to answer each.



### **CHAPTER III**

### **METHODOLOGY**

The introduction, rationale, problem, purpose, and research questions of the current study were described in the first chapter of this work. Chapter II provided a comprehensive review of the literature surrounding various conceptualizations of the grief process and the population, constructs, and theory that guided this investigation. The third chapter introduces the design and methodology of the study, including the sampling strategy, data handling procedures, response rates, instrumentation, and analytic strategies accompanying each research question.

#### **Research Design**

Anticipatory grief is a topic that primarily has been researched utilizing interviews in a qualitative manner (Davis et al., 1998; Duke, 1998). This research design fits well given the small sample size needed to reach saturation with a vulnerable population and is sensitive enough to capture a rich thick description of these experiences (Neimeyer et al., 2008). Heppner, Wampold, and Kivlighan (2008) alluded to potential problems or limitations in repetitive research design. If one particular method or design is highly favored and endorsed by a discipline, then subsequent research will continue to have similar flaws or “blind spots” (p. 76). These authors affirmed that if multiple designs are appreciated, each will bring with it a new set of limitations, but the “cumulative effect will be a clearer, more accurate picture of the topic under examination” (Heppner et al., 2008; p. 76).

Heppner et al. (2008) advocated for “paradigmatic diversity” within social science research in order to avoid an overused, unbalanced, and “subsequently weak knowledge base” (pp. 76, 75). Originating theorists and authors of empirical grief scales also recommend continued testing and collecting of reliability and validity data with diverse populations (Neimeyer et al., 2008). The present study provided a shift in perspective and away from the most commonly used methodologies in anticipatory grief research. The investigation utilized a cross-sectional quantitative survey design.

### **Procedure**

The procedures of the current investigation are presented in the following section. A three-part sampling strategy was employed in order to reach a sufficient sample size suggested by an a priori power analysis, which is also presented. The number of completed hard copy and online versions of the instrument is listed, including the complications with recording accurate response rates. Data handling methods and the process for disseminating incentives are also described. All procedures for this investigation were approved by the University of Northern Colorado Institutional Review Board Committee. Please refer to Appendix A for copies of the approval letters (initial and continuation).

### **Sampling Strategy**

A combination of purposeful and convenience sampling strategies was used to secure the participant sample. These methods were deemed most appropriate due to the sensitive nature of anticipatory grief, difficulty in obtaining buy-in for participation during this experience, and the practical inability to fully define a population of anticipatory grievers. Convenience sampling approaches to studying grief in Hospice

settings and among grief support groups are typical in past research with this population (Davis et al., 1998; Duke, 1998; Hogan et al., 2001). This combination was executed through a three-part data collection process.

The first purposeful component of this approach consisted of utilizing a global palliative care organization database, the International Association for Hospice and Palliative Care. This database contains a list of Hospice and palliative care programs published internationally, including mailing address, email address, and phone number of contact persons which was narrowed down to those in the United States ( $N=156$  agencies). Each of these agencies was sent either a hard copy or email message introducing the intent of the study, data collection procedures, IRB approval letter, and potential benefits for both the grieving families and the agency. This phase of sampling also included a pre-approved collaboration with GriefNet, a nation-wide organization which provides anonymous grief counseling through various online support groups. Notice of the participation opportunity was posted on the online message board for members who had given the agency consent to be contacted for social science research. The introduction letter (sent to agencies) is presented in Appendix B.

The second part of the sampling approach consisted of both purposeful and convenience methods. Collaboration was established with various corporate officials, administrators, and professionals of three nationally affiliated programs (offices dispersed nation-wide) that served bereaving families both before and after the death of a loved one. Administrative and/or corporate approval was gained in order to contact practitioners who serve anticipatory griever. Upon this contact (phone and email), 32 professionals agreed to receive and disseminate hard copy surveys or send on the online

link to potential participants. This is similar to a past investigation with this population where agency staff chose which individuals would be least likely to become adversely affected by participation (Duke, 1998). Lastly, flyers containing brief study information, researcher contact means, and tear-tabs were distributed (upon site approval) across local college campuses and within churches of various religious beliefs across a Midwestern location. A copy of the participant flyer is presented in Appendix C.

The third and final part of this method included a snowball sampling approach through social media (Facebook). A page dedicated to the study was constructed where potential participants could access information about the purpose of study, contact the researcher with any questions or concerns, and view the survey link. Short descriptions about the study intent and participation criteria were posted and shared by various followers of the page every month during this phase of data collection (eight total posts). Several agencies also posted the link to their website and Facebook pages. This method was intended to create a “ripple effect” in awareness of the opportunity to participate. The further the ripple extended, the wider the scope of reach, and the less direct contact was needed. This was an intentional process. Not all anticipatory grievers are connected to supportive services such as Hospice or support groups; therefore, this method was added to obtain a more representative sample of the true population.

### **Sample Size**

Desired sample size was estimated through a power analysis using the G-Power program (version 3.1.2) (Buchner, Erdfelder, Faul, & Lang, 2009). This program functions by analyzing probable power and sample size estimates given information provided. G-Power software requires inputting the (a) test family (e.g., F-tests), (b)

statistical procedure (e.g., multiple regression), (c) type of power analysis, (d) significance (alpha) level, (e) desired power (1- beta) level, (f) number of explanatory variables, and (d) minimum effect size (small, medium, or large) the researcher hopes to be able to detect. For a priori power analysis, these inputs are used to calculate estimated sample size, critical F-values, and noncentrality parameters required to obtain a desired level of statistical power of the test (Buchner et al., 2009).

The appropriate analyses to answer each of the research questions for the proposed study were single sample t-tests, multiple regression methods, and canonical correlation (discussed later). Given limited range and representation on several demographic variables, initial correlational analyses were conducted on constructs of prime interest (proactive coping, grief reactions, and posttraumatic growth) in order to determine if each should be kept for the final analyses. Those that were non-significant were excluded from the hierarchical regression model. This power analysis was based on multiple regression because it signified the test that would need the highest number of variables to compute (4 to 5 in this study). The significance level was set at  $\alpha=.05$  and desired level of statistical power was set at .80. Effect size was entered at .15, which is considered a medium effect (.02=small; .15=medium, .35=large) using Cohen's effect size  $f^2$  ( $R^2/[1 - R^2]$ ). Applying a medium effect size estimate is supported by recent research examining the predictability of proactive coping on instances of PTSD (a negative relationship), depression, and anxiety (Vernon, 2012). Changes in these models ( $\Delta R^2$ ) ranged from small ( $\Delta R^2=.03$ ;  $f^2=.03$ ) to quite large ( $\Delta R^2=.31$ ;  $f^2=.45$ ). Given this variability, a medium effect size was logically decided upon for the a priori power

analysis. The estimated sample size appropriate for this investigation suggested 119 participants; therefore, data collection ceased once this threshold was reached.

### **Response Rates**

It was not possible to record accurate response rates for data collection. I was rarely in direct contact with potential participants. Notice of the opportunity to participate in this research was most often left to the discretion of third party professionals. The instrument was made available in hard copy form and online through Qualtrics software. Over 500 hard copy surveys were packaged and mailed out to the collaborators (each survey included a prepaid return envelope). The number of hard copies mailed was determined by the third party in each case, and these professionals were not asked to report how many were dispersed to possible participants. A total of 32 Hospice chaplains, bereavement specialists, counselors, or other mental health professionals agreed to receive and pass along hard copies. The total number of completed hard copy responses returned was 31 (25.8%) surveys.

The online version of the instrument was made available through several methods. The link was attached to introductory emails sent to various professionals. Each recipient of this message was invited to browse the survey questions so they could determine their own level of comfort in passing along word of participation to families served. The intent with this process was to make the research process transparent and collaborative. This did, however, complicate the calculation of response rates because several responses were recorded when no data were entered (i.e., people “clicked-through” the questions and submitted the response). Additionally, there was no way to track the traffic of the survey link on Facebook (the page received 452 “likes”). A total of 428 responses were

recorded in the Qualtrics program. Of these, 89 (74.2%) were completed by anticipatory grieverers as evidenced by the response to the first question assessing qualification criteria (terminal loved one still living at this time). Only responses where “yes” was indicated in reply to this question, as well as “yes” selected for consent to participate, were included in the analyses (see Appendix D for hard copy consent form). Interested participants who selected “no” were routed to the incentive and grief support referral pages of the survey. There were no forced responses required so as to ensure professional collaborators could browse the survey items and participants could skip questions as needed or preferred. The average time of survey completion was only able to be recorded through the online format and averaged approximately 16 minutes (total instrument—108 items).

### **Data Handling**

Hard copy responses were returned by prepaid envelopes and stored in a locked file cabinet in a secure university office. Signed consent forms were mailed directly back to the research advisor at the University of Northern Colorado. Responses collected online through Qualtrics were accessed only on a university office computer, which was password protected at all times. Online responses were coded anonymously. Hard copy surveys will be destroyed, and the online survey will be erased, one year beyond the final dissertation study acceptance with the UNC Graduate School. Responses collected from participants who agreed to be contacted for future follow-up research will be held no longer than three years, and then will also be destroyed.

### **Incentives**

Participants had the option of entering a valid email address for entry into a randomized gift card drawing and/or to be invited to participate in future follow-up

research. Two lists were constructed. The first list contained email addresses for the gift card drawing. This list was not linked to participant data. The second list compiled email addresses for those interested in future research where incentives will also apply. Participants were given the option to provide email addresses for both of these options, one or the other, or neither of the two options. Three drawings for \$50.00 gift cards were conducted through use of a random number generator. Those participants were contacted over email and invited to select a store of their choice. They were then sent a gift card to the provided mailing address.

Agencies whose staff collaborated in this project will be given a free copy of the article derived from the completed dissertation study along with a professional executive summary outlining results and suggestions for continued education and improvement for organizations which support the bereft. The executive summary is intended to provide useful and timely information to participating agencies, as the publication of the subsequent research article may take a year or more to occur. If the accepting journal is published online only, a copy will be sent electronically to collaborators.

### **Instrumentation**

The instrumentation in this study consisted of a demographic questionnaire and a three-part survey. The demographic questionnaire gathered descriptive information in order to define the characteristics in this sample and possibly account for additional variance in the regression analyses. Proactive coping represented the primary independent variable in the study and was assessed using the Proactive Coping Inventory (PCI) (Greenglass, Schwarzer, & Taubert, 1999). Posttraumatic growth represented one of the primary dependent variables in this study, and it was measured using the



Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996). The Hogan Grief Reaction Checklist (HGRC) (Hogan et al., 2001) was also used to assess grief reactions over four factors, including the second primary dependent construct of interest (personal growth). The General Self-Efficacy (GSE) scale (Schwarzer & Jerusalem, 1995) was used to account for any unique variance not explained by the proactive coping construct (or vice versa), as it has been shown to strongly correlate with proactive coping in past investigations (Greenglass, 2002; Greenglass et al., 1999; Schwarzer & Taubert, 2002).

The total number of items in the current investigation amounted to 108 spread across 10 demographic questions, three of the seven subscales of the PCI (27 items), the full GSE (10 items), the full PTGI (21 items), and four of the six subscales on the HGRC (40 items). Some subscales of the PCI and HGRC were omitted for the current study as they were not relevant to this investigation and for overall instrumentation parsimony. The following sections describe the demographic questionnaire and each of the inventories used in this study. A copy of the full instrument can be found in Appendix E.

### **Demographic Questionnaire**

The demographic questionnaire was used to collect information on characteristics of participants in order to sufficiently describe the sample. Additionally, each demographic variable was put through a preliminary analysis to test its relationship with the criterion variables of interest in the study (posttraumatic and personal growth). Only variables that were statistically significantly related (continuous constructs) to or showed group differences (categorical) on the outcome variables were retained for the regression analyses. Variables kept were used to account for explained variance in each form of growth. The supportive services accessed item was used only for descriptive purposes.

The demographics collected included age, gender, geographical location (state/region), ethnicity, religious affiliation, relationship to the terminal person, perceived intimacy or closeness to that individual, life expectancy, time since notification of prognosis, and supportive services accessed. This portion of the instrument was intentionally kept brief (10 items) to avoid perceived intrusiveness and to limit time commitment during a difficult experience. A description of the data obtained on the demographic questionnaire is included in Chapter IV.

### **Proactive Coping Inventory (PCI)**

The Proactive Coping Inventory (PCI) was developed by Greenglass et al. (1999) in order to gain a multidimensional perspective on how people utilize various coping styles during stressful times or prepare to use them in the future (Greenglass, 2002). The PCI measures skills in coping with distress, including those that endorse greater well-being and gratification with life (Greenglass, 2002; Greenglass et al., 1999). The instrument was constructed using *Proactive Coping Theory* which proposes bridging a gap between the construct of coping and ideas of action and individual volition (Scharzer & Luszczynska, 2008). A focus of proactive coping theorists is to extend the concept of coping to a tenacious quest towards personal growth, offering a “more comprehensive and precise depiction of human beings in their struggles and strivings” (Scharzer & Luszczynska, 2008, p. 24).

The instrument was originally tested and construct validity evidence obtained on the PCI scores from three adult samples (age,  $M = 30.33$ ) (Greenglass, 2002). A confirmatory factor analysis of the PCI was conducted on a large undergraduate student population ( $N=709$ , mean age=20.67) in the United States to test the factor structure of

the instrument (Roesch et al., 2009). Results of this study led the authors of this “multiethnic” investigation to conclude that the original seven-factor model best fit the data (Roesch et al., 2009, p. 327). Convergent and discriminant validity of scores obtained on the PCI were demonstrated through comparing relationships among the PCI and other instruments in the original validation sample (Greenglass, 2002). Moderate positive correlations ( $r = .46$  to  $.62$ ) were shown between the PCI and other measures of internal control and active coping (e.g., *Brief COPE* and *Coping Inventory of Peacock and Wong*, respectively). Relationships between proactive coping and life satisfaction, self-efficacy, and perceived fair treatment by others were also positive ( $r = .29$  to  $.32$ ). The PCI yielded negative relationships with denial and self-blame ( $r = -.31$  to  $-.47$ ) and with anger, depression, emotional exhaustion, and cynicism ( $r = -.25$  to  $-.35$ ) (Greenglass, 2002). The PCI has been used to examine functional ability in the elderly (Greenglass, Fiksenbaum & Eaton, 2006), models of personality (Hambrick & McCord, 2010), test anxiety (Sohl & Moyer, 2009), and occupational stress (Greenglass, 2002) among various other areas.

The Proactive Coping Inventory (PCI) is thought by some scholars to be the “only formal measure of proactive coping that exists” (Roesch et al., 2009, p. 329). The full instrument consists of 55 items. Three of the seven subscales were used in the current study, totaling 27 items (proactive coping and two social support scales). Participants rated their responses on a four-point Likert-type scale (1=not at all true; 2=barely true; 3=somewhat true; 4=completely true). The proactive coping subscale consists of 14 items and assesses autonomous goal setting and self-regulatory goal achievement (Greenglass, 2002; Greenglass et al., 1999). This subscale has been used independent of the other PCI

subscales to measure proactive coping in recent research (Greenglass, Fiksenbaum, & Eaton, 2006; Vernon et al., 2009). Sohl and Moyer (2009) stated that “the proactive coping subscale of the PCI should represent the standard assessment of this construct” (p. 141). Items from this scale contain statements such as, “I try to pinpoint what I need to succeed,” and “I visualize my dreams and try to achieve them” (Greenglass et al., 1999). Scores were created by summing the total number of items on the subscale.

The construct of social support is assessed two-fold with this instrument. These subscales included instrumental support seeking and emotional support seeking. The instrumental support seeking subscale contains eight items and measures an individual’s tendency to activate his or her social support system through securing advice and feedback on how to deal with the approaching or current stress (Greenglass, 2002). Example items from this subscale include, “When I am in trouble I can usually work out something with the help of others,” and “I can usually identify people who can help me develop my own solutions to problems.” The emotional support seeking subscale consists of five items and measures how an individual regulates distress by talking to supportive others through companionship (Greenglass, 2002). Items on this subscale include “If I am depressed, I know who I can call to help me feel better,” and “Others help me feel cared for.” The PCI has been used to examine functional ability in the elderly (Greenglass, Fiksenbaum & Eaton, 2006), models of personality (Hambrick & McCord, 2010), test anxiety (Sohl & Moyer, 2009), and occupational stress (Greenglass, 2002) among various other areas. The PCI had yet to be employed within the context of grief prior to this investigation.

Scores on the PCI scales showed strong internal consistency reliability across all three subscales within the current sample of anticipatory grievers. Cronbach's  $\alpha$  for each scale (proactive coping, instrumental social support, and emotional social support) were .84, .91, and .83, respectively. These reliability estimates reflect similar findings with other adult populations in early instrument validation studies (Cronbach's  $\alpha$ =.79 to .85) (Greenglass, 2002; Roesch et al., 2009). An initial paired t-test was conducted with the social support subscales testing mean differences of posttraumatic growth and personal growth. There was no statistically significant difference in the means of these scales ( $p=.130$ ); therefore, they were combined into a "total social support" variable which was highly reliable (Cronbach's  $\alpha$ =.91). The scales used from the PCI in the current study can be found in Appendix F.

### **General Self-Efficacy Scale**

The General Self-Efficacy scale (GSE) was created by Schwarzer and Jerusalem (1995) and has been translated into 33 languages since its formation. The measure was developed in order to gather a general sense of perceived self-efficacy aimed at coping with common stressors in addition to adjustments associated with all kinds of demanding life events (Schwarzer & Jerusalem, 1995). Variations in general self-efficacy scores can reflect differences in individuals' tendencies to view themselves as capable of meeting various task demands (Chen, Gully, & Eden, 2001).

This tool has been used alongside other measures of similar constructs in large-sample studies published over the last decade. Luszczynska, Scholz, and Schwarzer (2005) assessed 1,933 participants in three countries, many of whom were living with diagnosed heart disease, cancer, or gastrointestinal disease, for health-related behaviors.

Results yielded positive relationships between general self-efficacy scores and active coping ( $r=.27$ ), planning ( $r=.33$ ), positive reframing ( $r=.32$ ), humor ( $r=.39$ ), fighting spirit ( $r=.39$ ), and information seeking ( $r=.22$ ) (Luszczynska, 2005). The reliability estimates across participants in this study ranged from .86 to .94 (Luszczynska et al., 2005) and ranged from .87 to .93 in a recent investigation of nearly 3,000 Thai and German adults assessing nutritional behaviors (Schwarzer, Richert, Kreausukon, Remme, Wiedemann, & Reuter, 2010). Although proactive coping was not assessed in the investigation by Luszczynska and colleagues (2005), previous studies have found proactive coping to correlate with self-efficacy in a Canadian adult sample ( $r=.70$ ) and a sample of German teachers ( $r=.61$ ) (Greenglass, 2002; Schwarzer & Taubert, 1999). Therefore, both the PCI and GSE were used in the current study to assess for extraneous variance and determine discriminant validity of scores from the PCI.

The GSE scale was intended to be combined with other more comprehensive instruments, as was the case in the current study (Schwarzer & Jerusalem, 1995). The GSE consists of 10 items (single factor/total score) that include statements such as, “Thanks to my resourcefulness, I know how to handle unforeseen situations,” and “I can usually handle whatever comes my way” (Schwarzer & Jerusalem, 1995). Response options are listed on a four-point Likert-type scale (1=not true at all; 2=hardly true; 3=moderately true; 4=exactly true). Scores were created by summing the ten items on the GSE which showed high internal consistency reliability (Cronbach’s  $\alpha=.86$ ) in the current study. The full GSE can be found in Appendix G.

### **Posttraumatic Growth Inventory (PTGI)**

The Posttraumatic Growth Inventory (PTGI) was developed by Tedeschi and Calhoun (1996) in an attempt to capture positive outcomes described by individuals who have experienced traumatic events. The scale is used to interpret how successful individuals are in reconstructing or strengthening their perceptions of self, others, and meaning of traumatic events (Tedeschi & Calhoun, 1996). The PTGI has been used to examine the relationship between religion and posttraumatic growth (Calhoun, Cann, Tedeschi, & McMillan, 2000), individuals experiencing cardiovascular disease (Sheikh & Marotta, 2005), survivors of war (Powell, Rosner, Butollo, Tedeschi, & Calhoun, 2002), and in studies of a variety of trauma experiences (Linley, Andrews, & Joseph, 2007; Taku et al., 2008) among multiple other settings.

Initial empirical testing of this instrument was conducted by sampling a large group of undergraduate students ( $N = 604$ ; age range 17 to 25) in the southeastern United States who had reported experiencing a traumatic event in the past five years (Tedeschi & Calhoun, 1996). Bereavement was listed as the highest contributing trauma for this group of individuals (36% of cases), and indications of trauma across the five-year timespan fluctuated (six months ago or less, =22%; seven months to one year ago, =16%; 13-23 months ago, =17%; two to four years ago, =32%; four to five years ago, =13%). Construct-related validity evidence was demonstrated by Tedeschi and Calhoun (1996) by comparing groups who had and had not been influenced by a traumatic event across all the factors on the PTGI. The authors utilized an analysis of variance (ANOVA) and found that participants who had experienced trauma, compared to those who did not, had

significantly higher scores on four of the five PTGI factors (Spiritual Change factor was not statistically significant).

A confirmatory factor analysis was performed over a decade later and also yielded strong psychometric evidence of the construct validity and internal consistency of scores based on this inventory. Taku and colleagues (2008) collected a representative sample of 954 adults (mean age = 30.7,  $SD=15.4$ ) from 14 separate studies involving individuals who had experienced trauma. The data collected from the sampled studies were part of an on-going research project assessing the posttraumatic growth construct, and all studies had different central research questions. Approximately 20% of the participants in these studies experienced losing a loved one due to death, and 15% had encountered a trauma related to serious medical illness. Time since the trauma varied but was condensed within the past five years at the time of the representative study (less than 6 months, = 32.9%; 1-2 years. = 19.8%; 2-4 years. = 18.4%; over 4 years, = 6.1%; did not report, = 7.6%). The total score alpha was higher than the original validation study (.94), and test-retest reliability yielded a .71 mark over a two-month time span (Taku et al., 2008).

The response format for the PTGI contains a six-level Likert-type scale (0=I have not experienced this change; 1=I have experienced this change to a very small degree; 2=I have experienced this change to a small degree; 3=I have experienced this change to a moderate degree; 4=I have experienced this change to a great degree; 5=I have experienced this change to a very great degree). This inventory consists of 21 items and contains five factors or subscales including Spiritual Change, Appreciation of Life, Relating to Others, Personal Strength, and New Possibilities (Tedeschi & Calhoun, 1996). Due to high intercorrelations among subscales (e.g.,  $r=.84$ ), the PTGI is often



utilized with a total scale score as was the case in the current investigation (Sheikh & Marotta, 2005).

The PTGI total score is interpreted as a reflection of magnitude of posttraumatic growth, or the amount, degree, level, extent, and perceived benefits resulting from the experience (Anderson & Lopez-Baez, 2008). Example items from this inventory include, “I changed my priorities about what is important in life,” “I have a greater sense of closeness with others,” and “I discovered that I’m stronger than I thought I was.” Scores were created by summing the responses to the 21 items and showed strong internal consistency (Cronbach’s  $\alpha=.96$ ) in the current study. This is similar to other studies examining the total factor structure in adult populations of trauma survivors (Cronbach’s  $\alpha=.90$  to  $.94$ ) (Sheikh & Marotta, 2005). The full PTGI can be found in Appendix H.

### **Hogan Grief Reaction Checklist (HGRC)**

The Hogan Grief Reaction Checklist (HGRC) was developed from data collected specifically from bereaving adults who had experienced grief as a result of death of a loved one (Hogan, Greenfield, & Schmidt, 2001). These authors created this instrument to capture a way to measure a normal and multidimensional trajectory of grief, derived from experiences by the bereaving themselves, not by a panel of experts in the field. The HGRC has been used to examine the experiences of mothers after losing a child (Laasko & Paunonen-Ilmonen, 2002), individuals who experienced losing a spouse (Hyrkäs, Kaunonen, & Paunonen, 1997), failed business ventures (Shepard, 2003), and for studies investigating complicated grief (Prigerson & Maciejewski, 2006).

The Hogan Grief Reaction Checklist (HGRC) has undergone extensive empirical investigation over the past decade and a half (Hogan et al., 2001; Hogan & Schmidt,

2002; Hyrkäs, Kaunonen & Paunonen, 1997; Laakso & Paunonen-Ilmonen, 2002). The instrument was initially created by developing and analyzing a set of test items through a series of focus groups and interviews with bereaving adults, an exploratory factor analysis, and by a follow-up confirmatory factor analysis (Hogan et al., 2001). Based on this CFA, Hogan and colleagues (2001) concluded that the HGRC fit the participant data (Chi Square (155) =313.26,  $p < .01$ , SRMR=.05, CFI=.94), showed high internal consistency, and had correlated components that ranged from  $r = .53$  to  $.83$  (Hogan et al., 2001).

Four subscales from the HGRC were used in the current investigation, and these include: Despair, Detachment, Disorganization, and Personal Growth. The two other subscales of the HGRC (Panic, Anger) were not included as these have been shown to be most related to experiences of unanticipated grief (i.e., suicide, homicide) (Hogan et al., 2001). Additionally, the HGRC is not interpreted using a total score because of inverse factor representation (personal growth is inversely related to all other factors). The four subscale scores were summed and assessed separately in this investigation.

Participants were asked to rate their responses to the HGRC scales on a five-point Likert-type scale (1=does not describe me at all; 2=does not quite describe me; 3=describes me fairly well, 4=describes me well; 5=describes me very well). The subscales used in this study contain a total of 40 items. Scores on all subscales demonstrated strong reliability estimates in the current study. Cronbach's alpha reliability estimates for Despair, Detachment, Disorganization, and Personal Growth were .92, .89, .90, and .91, respectively. The scales from the HGRC used in the current study can be found in Appendix I.

## **Research Questions and Analytic Strategies**

The following section reintroduces the research questions answered in this study. The rationale and procedure for each analytic strategy is described. Questions one, two, and three were each run twice to account for the two dependent variables indicating growth (posttraumatic and personal) in this study. The results of these analyses are discussed in the next chapter along with further descriptive statistics of the sample and variables obtained by the research instrument.

### **Q1: Single Sample T-Test**

*Does posttraumatic and personal growth occur in anticipatory grief experiences?*

This research question required two single sample t-tests. This research question assessed whether or not statistical evidence of personal and posttraumatic growth can be detected in anticipatory grief experiences. These t-tests were used to examine whether or not the mean of the sample in the present study is equivalent or different than the theoretical cut-off score for posttraumatic and personal growth. The cut-off scores chosen for the present study are discussed below for posttraumatic growth and personal growth, respectively.

Traditionally, scores on the PTGI have been interpreted on a continuum, indicating higher scores meaning more personal growth as compared to lower scores. Some studies have attempted to create distinct groupings to determine “high” versus “low” evidence of posttraumatic growth (Grubaugh & Resick, 2010), while others noted a minimum score indicative of growth (Polatinsky & Esprey, 2000). In an investigation of posttraumatic growth in a sample ( $N=100$ ) of sexual assault survivors, Grubaugh and Resick (2010) created high (85 or higher) and low (30 or less) cut-off scores for

participant results on the PTGI. This implies a range of 21-29 as low, 30-84 as moderate, and 85-126 as high posttraumatic growth. However, Grubaugh and Resick (2010) utilized a total score with a possible range of 21-126, as opposed to 0-105 as indicated by the original PTGI authors (Tedeschi & Calhoun, 1996). Translated to the original scale, these ranges would result in 0-25 as low, 26-69 as moderate, and 70-105 as high posttraumatic growth. The midpoint in this moderate range is 47, which is close to the minimum score indicative of growth (42) proposed by Polatinsky and Esprey (2000) in their study assessing posttraumatic growth in bereaving adults ( $N = 67$ ). Therefore, a final average of these two midpoints yields 45 as an appropriate cut-off score for the current investigation. A single-sample t-test was conducted to determine if total scores on the PTGI were significantly different (higher or lower) than this value indicative of growth.

Subscales from the Hogan Grief Reaction Checklist (HGRC), including personal growth, have not been assigned cut-off scores in past investigations. In an effort to stay consistent with the cut-off score assigned to the total score on the PTGI, identical percentages were used in determining if anticipatory griever report experiences of personal growth given a designated cut-off score. The assigned cut-off score indicative of posttraumatic growth (45) represented the 43% mark of total points possible (105). The low range cut-off score (25) falls at 23% and the high range cut-off score (70) at 67% of points possible. Using these same percentage markers, the cut-off scores for the HGRC subscale of personal growth were created. This measure consists of 12 items using a 1-5 Likert-type scale, yielding a total possible score of 60 for this construct. The resulting cut-off scores are as follows: minimum score indicative of personal growth (26), low

range score (14 or less), and high range score (40 or more). The same t-test method as used in the posttraumatic growth scenario was applied again with this construct.

## **Q2: Hierarchical Multiple Regression**

*To what degree does proactive coping predict posttraumatic or personal growth over and above other covariates?*

The appropriate analysis for this research question is hierarchical multiple regression. Hierarchical regression analyses allow for statistical control of potentially extraneous variables as they are entered into the model from a theoretical basis and in which test variables are given priority consideration (Petrocelli, 2003). In order to examine the direct question of whether or not proactive coping is a statistically significant and unique, explanatory factor for growth, this variable was examined by how much it contributed to the explained variance of the model over and above the variables entered before it (Petrocelli, 2003). Authors of the Grief to Personal Growth Theory that guided this study also suggested hierarchical modeling for future research in order to “more definitively identify the factors affecting the grief trajectory” (Hogan & Schmidt, 2002, p. 632). Rather than focusing on changes in beta estimates and structure coefficients of each variable entered into the model, hierarchical regression highlights changes in overall *R*-squared, *F*-value, and *p*-value results at each step (Petrocelli, 2003). Effect sizes will also be described in the next (results) chapter using Cohen’s (1988) interpretation ( $f^2$ ).

According to Cohen and Cohen (1983), demographic variables should be entered into the model in the initial steps and any probable causes of subsequent variables should be entered prior to their effects. This allows for the extraction of as much explanatory

inference as possible and unique partitioning of the total variance in the model by examining changes in overall  $R$ -squared. Petrocelli (2003) stated that “the most careful of researchers tend to enter static variables of interest (e.g. gender, age, or race) before entering dynamic variables in subsequent steps” (p. 14).

This approach allowed for the observation of changes in the regression model when adding the primary variable of interest (proactive coping) after other related “nuisance” variables were held constant (Tabachnik & Fidell, 2007, p. 138). The steps or blocks for two regression models are explained in Chapter IV. The first model utilized posttraumatic growth as the dependent variable. The second model used personal growth as the outcome variable of interest. Decisions on variable entrance and order are explained in the next chapter as well.

Effect sizes were interpreted for these analyses using Cohen’s  $f^2$  statistics. This method of estimating effect size is recommended for hierarchical regression analyses (Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012). According to this framework,  $f^2 \geq .02$  indicates a small effect,  $f^2 \geq .15$  signifies a medium effect, and  $f^2 \geq .35$  suggests a large effect (Cohen, 1988). These effect size estimates are included in the hierarchical regression narrative as well as the model summary tables (Chapter IV).

### **Q3: Mediation (Process tool)**

*Does social support mediate the relationship between proactive coping and posttraumatic or personal growth?*

According to Baron and Kenny (1986), variables that serve as generating mechanisms between an explanatory variable and a dependent variable are considered *mediators*. Mediating variables establish “how” or “why” an explanatory variable

predicts or explains an outcome variable (Frazier, Tix, & Barron, 2004). Examining potential mediation effects extends outcome data beyond basic description to a more functional understanding of the relationships among constructs (Preacher & Hayes, 2004). Additionally, social science research aimed at exploring treatment and prevention interventions illustrates a modern application of possible mediating variables causally related to healthy outcomes (MacKinnon & Fairchild, 2009).

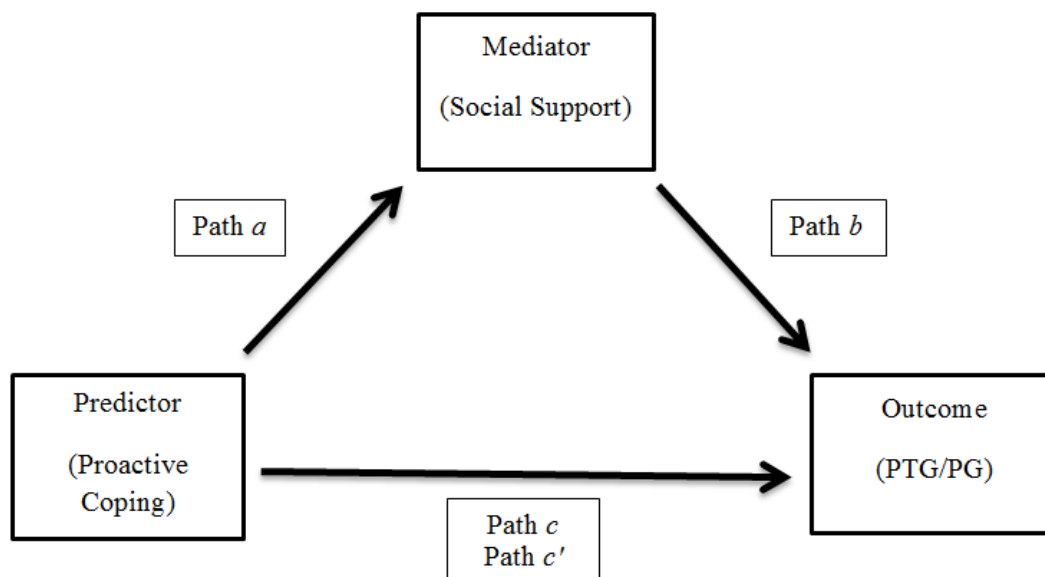
In the current investigation, social support was hypothesized to serve as a mediator between proactive coping (explanatory variable) and posttraumatic and personal/posttraumatic growth (dependent variables). Individuals who possess a proactive coping disposition are thought to accumulate their resources and actively increase their exposure to social support when needed most (Schwarzer & Luszczynska, 2008). In turn, social support was hypothesized to increase experiences of growth throughout grief experiences (Hogan & Schmidt, 2002; Worden, 2002). This mediation hypothesis implies that individuals who illustrate proactive coping dispositions (explanatory variable) accumulate social support resources (mediator variable) which lead to greater experiences of growth (outcome variable) when experiencing anticipatory grief. The relationships between these variables exist within one of two paths based on direct and indirect effects.

The first path consists of the total effect between the independent and dependent variable without the mediator present (*path c*). The mediator then is inserted between these two points. This alternative route combines a path between the explanatory variable and mediator (*path a*) and mediator to outcome variable (*path b*). The trajectory from the explanatory variable, through the mediator, and to the criterion variable is what is considered the indirect effect. The direct effect produces the result of the explanatory

variable on the outcome variable (*path c'*) after the mediator has been entered into the model and is held constant (Barron & Kenny, 1986; Fields, 2013; Frazier et al., 2004).

According to the traditional mediation approach proposed by Barron and Kenny (1986), for mediation to exist, certain conditions must be met. First, regressions run along all three paths should produce statistically significant results. Secondly, when the paths between the independent variable and mediator (*path a*) and between the mediator and dependent variable (*path b*) are accounted for (the indirect effect), the previously significant direct path (*path c*) between the independent variable and dependent variable is weakened and no longer significant; or it could still be statistically significant if only partial mediation holds (*path c'*). Perfect or full mediation is established when there is no direct effect in the final scenario (Baron & Kenny, 1986). This approach has been widely accepted and cited in nearly 35,000 journal articles, scientific papers, and textbooks over the past few decades (Field, 2013). The mediation model diagram for this research question is displayed in Figure 1.





*Figure 1.* Mediation Model

Despite the wide use of this method, the analytic approach to testing the presence of indirect effects has also received significant criticism and critique from other practicing researchers (Field, 2013; Iancobucci, Saldanha, & Xiaoyan, 2007; MacKinnon & Fairchild, 2009; Zhao, Lynch, & Chen, 2010). Zhao and colleagues (2010) challenged the assumption that there are only three outcomes resulting from a mediation analysis: full mediation (indirect effect but no direct effect), partial mediation (both effects), and no mediation (no effects). They believe that these definitions should be expanded to include: complementary mediation (both effects going in the same direction), competitive mediation (effects going in opposite directions), indirect-only mediation (mediation/indirect effect but no direct effect), direct-only nonmediation (direct effect, no indirect effect), and no-effect nonmediation (no effects) (Zhao et al., 2010). MacKinnon and Fairchild (2009) declared that this approach requires thousands of participant

responses to detect small effects. They also stated that mediation can exist even if the original relationship between the explanatory and outcome variables (path  $c$ ) are not statistically significant, which goes against one of the primary assumptions of the Barron and Kenny (1986) approach (MacKinnon & Fairchild, 2009). A final issue with this method is the separate, rather than combined, regressions run on the indirect effects.

Given the several possible limitations of the original Barron and Kenny (1986) approach, the mediation analyses in this study were conducted using the *process tool* (i.e., PROCESS) created by Andrew Hayes (2009; 2013). This approach remedies many of the original concerns with former methods (Baron & Kenny, 1986) and is a highly recommended for analyses testing both complex (up to 10 mediators) and simple mediation (one mediator) questions (Preacher, Rucker, & Hayes, 2007). This process model is capable of producing effect sizes (confidence intervals) for indirect effects without the researcher needing to perform additional computations outside of running this singular program (Hayes, 2009). The possibility of committing Type I error is further reduced because total, direct, and indirect effects are run in a singular analysis. Type II errors may also be reduced as this method allows for sensitive detection of a statistically significant mediating effect even when the direct effect (path  $c'$ ) remains significant (Hayes, 2013).

PROCESS is based on a path analysis framework and produces bootstrapped confidence interval (set at 1,000 samples) statistics which are consistently becoming more desirable when reporting statistical output of analyses (Hayes, 2009). The macro file for the PROCESS tool is freely available on the author's website ([www.afhayes.com](http://www.afhayes.com)) along with step by step directions for uploading the syntax commands into SPSS or SAS

software. The syntax code for running the analyses is also available free to researchers.

The code used in both bootstrapped mediation analyses are displayed in Table 1.

Table 1

*PROCESS Code*

Model	Syntax Code for PROCESS
<b>Posttraumatic Growth (DV)</b>	process vars=pci tss_reflect_sqrt ptgi/y=ptgi/x=pci/m=tss_reflect_sqrt/model=4/total=1/effsize=1/boot=1000.
<b>Personal Growth (DV)</b>	process vars=pci tss_reflect_sqrt HGRCPG/y=HGRCPG/x=pci/m=tss_reflect_sqrt/model=4/total=1/effsize=1/ boot=1000.

---

\*\*PCI (proactive coping); TSS\_reflect\_sqrt (social support); PTGI (posttraumatic growth); HGRCPG (personal growth)

#### **Q4: Canonical Correlation**

*To what extent can time since learning of prognosis and life expectancy explain grief reactions?*

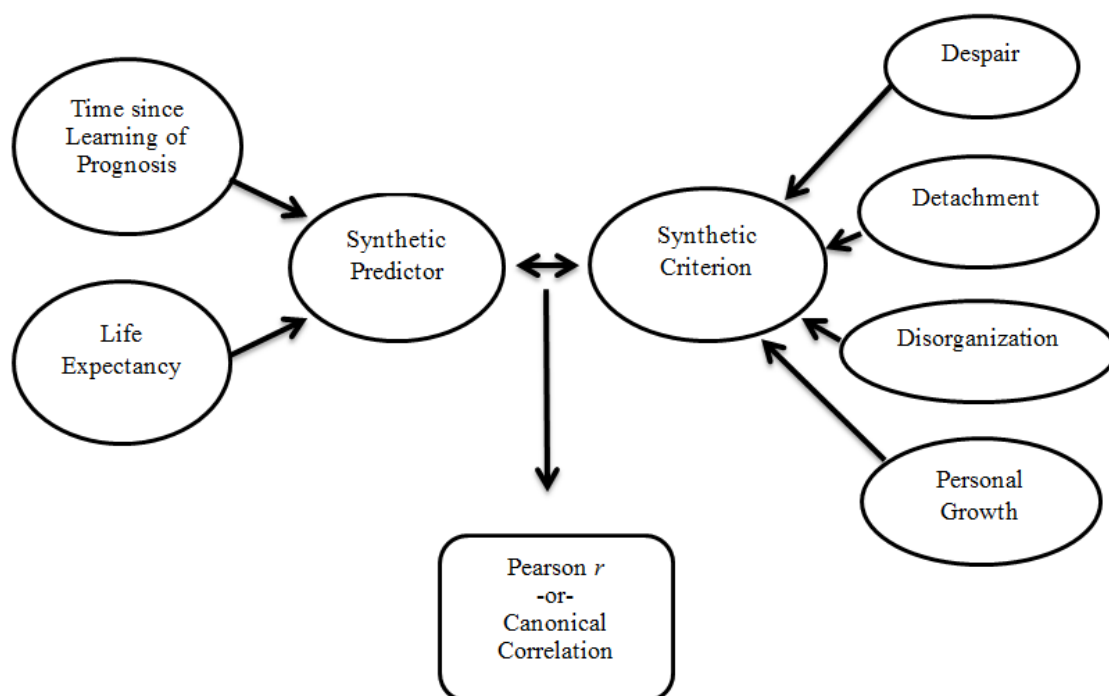
A canonical correlation analysis was employed to address this research question. Variables of personality or human behavior are rarely independent of one another, and it is nearly impossible to isolate a single variable to study its effect on another single variable (Weiss, 1972). This type of analysis is a multivariate approach and is useful for researchers who wish to investigate if and how two sets of variables relate to each other and how much variance in one set is common with the other set (Tabachnik & Fidell, 2007; Weiss, 1972). Additionally, the risk of committing Type I error is reduced because only one test is performed, rather than a series of regressions (Sherry & Henson, 2005). Canonical correlation is the standard approach for measuring the relationship between a linear combination of variables in one group and that of another group of variables (Lee,

2007). In other words, this procedure can answer research questions such as, “To what extent can one set of two or more variables be predicted or “explained” by another set of two or more variables?” (Thompson, 1984). In the current investigation, the relationship between a set of continuous timing variables (Group 1: time since learning of the prognosis and life expectancy) and grief reaction factors (Group 2: despair, disorganization, detachment, personal growth) was explored.

The statistical assumptions that accompany canonical correlation include number of cases, linearity, univariate normality (desired but not required), multivariate normality (analog of univariate normality), homoscedasticity, and potential issues of multicollinearity (Hair, Anderson, Tatham, & Black, 1998; Sherry & Henson, 2005; Tabachnik & Fidell, 2007). Statistically, if the variables within the study (i.e., scores on the grief reaction subscales) are considered reliable (reliability estimate of at least .80), then a minimum of 10 cases is needed for every variable (Tabachnik & Fidell, 2007). In the current study, this would equate to a minimum of 60 participants. The resulting size was double this minimum requirement and scores on all grief reaction factors were strongly reliable (Cronbach’s  $\alpha = .89$  to  $.92$ ).

The explanatory variables in this analysis were the time-variables, and the criterion variables were grief reactions. In the canonical correlation analysis, the two time variables were linearly combined to form a “synthetic” explanatory variable, and the four grief reaction variables were combined into a synthetic criterion variable (Sherry & Henson, 2005, p. 39). This produced a correlation coefficient between the two synthetic variables for each possible dimension. These synthetic variables are created through a statistical attempt to maximize the relationship between the two linear combinations of

variables (Sherry & Henson, 2005; Thompson, 1984). For an illustration of this process, refer to Figure 2.



*Figure 2.* Canonical Correlation Model

### Conclusion

This chapter introduced the design and methodology of the study including a description of the sampling strategy, procedures, instrumentation, and the analytical strategies accompanying each research question. Chapter IV will illustrate a thorough description of the participants, variables of interest, and the statistical and practical results of each research questions under investigation.

## **CHAPTER IV**

### **RESULTS**

The purpose of this study was to test the congruency of, and potentially expand the *Grief to Personal Growth Theory* to adults who are anticipating a loss. This was explored by statistical examination of participant scores on scales assessing the disposition of proactive coping, social support, self-efficacy, grief reactions, and experiences of posttraumatic growth along with various demographic items. A second important purpose of this study was to assess whether or not personal or posttraumatic growth can be detected as individuals face an inevitable loss, since originally, these constructs have only been examined in post-death situations. A third purpose of the study was to uncover potential facilitative factors (e.g., proactive coping disposition) that increase or explain these growth experiences. This investigation utilized a cross-sectional survey design. Data collection was accomplished through third party collaborations with organizations serving bereaving families (e.g., Hospices), online grief support groups, and various professional networks connected to anticipatory griever across the United States.

#### **Participants**

The target population for this current investigation was comprised of English-speaking adults (18+ years old) who were, at the time of participation, anticipating the death of a loved one. The ailments that afflicted the loved ones of participants included conditions such as terminal cancer, Alzheimer's disease, or other life-limiting illnesses

(e.g., Parkinson's disease, Multiple Sclerosis) although these conditions were not officially recorded or used as part of the data analyses.

A total of 130 participants completed the survey instrument. Ten responses were excluded from the primary analyses due to substantial missing data for a total of 120 usable responses. This final sample consisted of 100 females and 18 males (two participants did not indicate gender). The average age of the participant was 52.7 ( $SD=16.5$ ) and the range of age was wide (18-96). Indicated ethnicity of participants was primarily Caucasian ( $n=107$ ; 89.2%). Others included Asian ( $n=2$ ; 1.7%), Hispanic ( $n=5$ ; 4.2%), African American ( $n=1$ ; .8%), and other ( $n=3$ ; 2.5%). A total of 27 states across all four regions (West,  $n=30$ ; Midwest,  $n=53$ ; South,  $n=22$ ; Northeast;  $n=11$ ) of the United States were represented in the sample. An additional five participants completed the instrument from countries outside of the United States. Mean scores from these five participants across the two dependent variables (posttraumatic and personal growth) did not differ significantly than the rest of the sample; therefore, these participants' responses were included in analyses.

The relationship to the dying person varied throughout the sample as well. A considerable number of participants had a parent with a terminal condition ( $n=51$ ), and others included a spouse ( $n=21$ ), sibling ( $n=4$ ), friend ( $n=13$ ), child ( $n=6$ ), grandparent ( $n=9$ ), or other (e.g., aunt, cousin, in-law, etc.) ( $n=12$ ). Participants were asked to rate their level of intimacy or emotional closeness with this individual on a 1-10 Likert-type scale. The lower the number on this scale, the least amount of intimacy was indicated. The higher number represented the deepest sense of intimacy. The range of these rankings was 2-10 with a large majority of the marks placed near the higher end of the

scale ( $M = 8.09$ ; mode=10). Lastly, participants were asked to provide information on two continuous time variables: (1) how long ago they were informed of this person's terminal condition and (2) the life expectancy of that person as determined by medical personnel. Many participants were unable or chose not to answer one or both of these time-oriented questions. Time since notification of the terminal illness was readily supplied by participants in most cases (83%), but less than half provided life expectancy information (48.3%). More discussion on this topic takes place in Chapter V.

Below is a descriptive statistic and frequency table (Table 2) of the obtained demographic items ( $n = 120$ ). Interestingly, age and life expectancy were left blank often in this sample. Possible implications of this missing data are discussed in Chapter V.



Table 2

*Demographic Information*

<b>Variable</b>	<b>Description</b>	<b>Recorded</b>	<b>Missing</b>
Age	$M = 52.71$ $SD = 16.5$	87	33
Gender	Female (83.3%) Male (15.3%)	118	2
Geographical Region	Midwest (44.2%) West (25%) South (18.3%) Northeast (9.2%) International (2.5%)	119	1
Ethnicity	Caucasian (89.2%) Hispanic (4.2%) Other (2.5%) Asian (1.7%) African American (.8%)	118	2
Religious Affiliation	Christian (71.7%) Unaffiliated (atheist, agnostic) (20%) Other (5%) Jewish (1.7%) Buddhist (1.7%)	120	0
Relationship to Terminal Person	Parent (42.5%) Spouse (17.5%) Friend (10.8%) Other (10%) Grandparent (7.5%) Child (5%) Sibling (3.3%)	116	4
Intimacy (Closeness)	$M = 8.09$ $SD = 1.7$ *1-10 scale (10 highest)	120	0
Life Expectancy	$M = 9.3$ $SD = 9.9$ (months)	58	62
Time since Notification	$M = 11.6$ $SD = 20.8$ (months)	102	18
Support Services	Conversations with family/friends (82.5%) Conversations with agency staff (37.5%) Religious support (30%) Conversations with medical staff (15%) Online support (14%) Other (10.8%) Support groups (10%) None (5.8%)	119	1

\*participants checked all that applied

### Reliability

Internal consistency reliability estimates for scores on all instruments (subscales and total scores, as appropriate) were conducted on the final sample of 120 anticipatory grievers who met all research criteria. The resulting coefficients for each subscale or total score relevant to this investigation are displayed in Table 3.

Table 3

#### *Reliability Estimates*

<b>Instruments &amp; Subscales</b>	<b>Number of Items</b>	<b>Cronbach's Alpha (<math>\alpha</math>)</b>
Proactive Coping Inventory (PCI): Proactive Coping subscale (Greenglass, 2002)	14	.84
Proactive Coping Inventory (PCI): Social Support (Greenglass, 2002)	13	.91
Posttraumatic Growth Inventory (PTGI): Total scale (Tedeschi & Calhoun, 1996)	21	.96
General Self-Efficacy (GSE): Total Scale (Schwarzer & Jerusalem, 1995)	10	.86
Hogan Grief Reaction Checklist: Personal Growth subscale (Hogan et al., 2001)	12	.91
Hogan Grief Reaction Checklist: Despair subscale (Hogan et al., 2001)	13	.92
Hogan Grief Reaction Checklist: Detachment subscale (Hogan et al., 2001)	8	.89
Hogan Grief Reaction Checklist: Disorganization subscale (Hogan et al., 2001)	7	.90

### Descriptive Statistics

Eight scales were utilized in this investigation. These measures were derived from the proactive coping and combined social support subscales of the Proactive Coping Inventory (PCI), full General Self-Efficacy scale (GSE), full Posttraumatic Growth Inventory (PTGI) scale, and four subscales of the Hogan Grief Reaction Checklist (HGRC). A Pearson correlation matrix is provided in Table 4 (significance levels are indicated). The strongest correlations were found among the subscales of the HGRC ( $r=.38$  to  $.78$ ), proactive coping and self-efficacy ( $r=.67$ ), and personal and posttraumatic growth ( $r=.64$ ). Descriptive statistics of scores for each of these inventories are listed next.

Table 4

*Pearson Correlation Matrix among Scales*

\* $p < .05$  level; \*\* $p < .01$

	PCI	SS	Efficacy	Despair	Detach	Disorg	PG	PTG
PCI	1.00							
SS	** $.322$	1.00						
Efficacy	** $.670$	** $.361$	1.00					
Despair	** $-.378$	$-.154$	** $-.427$	1.00				
Detach	** $-.353$	$-.127$	** $-.322$	** $.763$	1.00			
Disorg	** $-.473$	$-.050$	** $-.338$	** $.691$	** $.778$	1.00		
PG	** $.459$	** $.383$	** $.420$	** $-.464$	** $-.378$	** $-.412$	1.00	
PTG	* $.213$	** $.341$	$.094$	$-.106$	$-.110$	$-.102$	** $.639$	1.00

### Proactive Coping Inventory

The Proactive Coping Inventory (PCI) was developed by Greenglass et al. (1999) in order to gain a multidimensional perspective on how people utilize various coping styles during stressful times or prepare to use them in the future (Greenglass, 2002). The

primary tool of empirical use within this instrument is the proactive coping subscale. This measure was included in the current investigation to assess perceived proactive coping dispositions in anticipatory griever in relation to observed indicators of growth. The total score for the proactive coping variable held a possible range of 14 to 56 (14 items), and the range of scores was 27 to 56 in the current sample ( $M = 43.91$ ;  $SD = 5.82$ ).

A social support variable was constructed by combining the instrumental and emotional support seeking subscales of the PCI. This variable measures an individual's tendency to activate his or her social support system through securing feedback or advice and his or her attempt to manage distress by talking to supportive companions (Greenglass, 2002). This construct was included in the current study to assess potential explanatory ability of growth in anticipatory grief. The social support variable produced a possible range of 13 to 52 (13 items), and the range of scores was 17 to 52 in this data set ( $M = 40.83$ ;  $SD = 6.94$ ). The proactive coping and social support variables were statistically significantly correlated ( $r = .322$ ;  $p < .001$ ) but did not produce multicollinearity problems in the regression analysis (VIF statistics were below 2).

### **General Self-Efficacy Scale**

The General Self-Efficacy scale (GSE) was created by Schwarzer and Jerusalem (1995) in order to gather a general sense of perceived self-efficacy aimed at coping with common stressors or other demanding life events (Schwarzer & Jerusalem, 1995). The GSE was included in this investigation in order to test the unique variance explained by it and the proactive coping construct. The possible range for this scale was 10 to 40 and the actual range reflected was 17 to 40 in the current sample ( $M = 31.31$ ;  $SD = 4.2$ ).

### **Posttraumatic Growth Inventory**

The Posttraumatic Growth Inventory (PTGI) was developed by Tedeschi and Calhoun (1996) and is used to interpret how successful individuals are in reconstructing or strengthening their perceptions of self, others, and meaning of traumatic events (Tedeschi & Calhoun, 1996). The PTGI was used in the current study to determine if hearing of a loved one's terminal condition could constitute a traumatic event, and if indeed, anticipatory grievers experience growth as a process rather than a later outcome. Possible total scores on the PTGI range from 0 to 105, and the observed range in this study was 0 to 99 ( $M = 53.68$ ;  $SD = 24.5$ ).

### **Hogan Grief Reaction Checklist**

The Hogan Grief Reaction Checklist (HGRC) contains four factors that have been determined to represent “core grief” reactions: despair, detachment, disorganization, and personal growth (Hogan & Schmidt, 2002, p. 622). These four subscales were used in the current study to assess if this model of post-death grief also has validity in anticipatory experiences. The subscales used in this study contain a total of 40 items.

The Despair subscale contained 13 items and a score range of 13 to 65 is possible. The observed range of this measure was 13 to 57 ( $M = 27.96$ ;  $SD = 10.32$ ). The Detachment subscale was represented across eight items with a possible range of 8 to 40 in score. The actual range was 8 to 36 ( $M = 15.6$ ;  $SD = 6.65$ ). The Disorganization subscale is based on seven items and a score range of 7 to 35 is possible. The represented range in this study was 7 to 33 ( $M = 15.7$ ;  $SD = 6.32$ ). Finally, the Personal Growth subscale of the HGRC utilized 12 items with a possible score range of 12 to 60. The

reflected range was 12 to 56 ( $M = 39.72$ ;  $SD = 9.14$ ). Data analysis procedures are discussed next, followed by testing of the research question hypotheses.

### **Data Analysis**

The following subsections cover methods of data entry, missing data decisions, and procedures for preliminary analyses and variable transformations. This chapter then concludes with the statistical results for each research question and rejection or acceptance of subsequent hypotheses.

#### **Data Entry**

All survey responses were entered manually into the SPSS statistical package. The data collection window was open for 404 total days from the initial IRB approval until a sufficient sample size was reached given the preceding power analysis. The most responses returned in a week were approximately four surveys. This allowed time to manually enter data, detect any patterns of responding (e.g., selecting all 4s, even on reverse items), and double-check for any entry errors. No notable patterns of responding were witnessed during this process.

All responses were coded in a spreadsheet so each case could be identified if need be, such as in the event the participant consented to be contacted for follow-up research. The spreadsheet was labeled 1-130, and online responses were matched with the participant ID number from the Qualtrics program. Hard copy responses were left blank on the spread sheet, and the case number was written on the top of those surveys. These were stored in a locked file cabinet in a university office.

## Missing Data

The instrument in the current study utilizes a demographic questionnaire and a three-part quantitative survey. There were 108 total items, 98 of which were associated with quantitative measures. A total of 130 survey responses were recorded on this instrument. Tabachnick and Fidell (2006) offer several suggestions for cleaning data sets and approaching missing data. The first step undertaken was determining whether or not there were patterns in missing data or if they were missing at random. This was done by totaling the number of missing responses for each variable across all cases. Missing data was assessed on the scale level, not the item level. In other words, if a participant missed any item on that scale (e.g., one item out of the 14 items on the proactive coping subscale), this was recorded as a missing data case for that variable. The distribution of these missing values was not heavily loaded on any single variable; therefore, it is reasonable to assume no pattern had emerged throughout the responses to the survey.

There were 10 cases (each an online response) in which it appeared the participant either dropped out of the study or lost connection to the survey link. The responses were completed up until a point at which no other items were completed or recorded. The percentages of missing data at the scale level for each variable were calculated for the total sample ( $N = 130$ ) and again without inclusion of these incomplete cases ( $N = 120$ ). These percentages are displayed in Table 5.

Table 5

*Missing Data Percentages*

<b>Variable</b>	<b>% of missing data (130 cases)</b>	<b>% of missing data (120 cases)</b>
Proactive Coping	12.3	6.6
General Self-Efficacy	7.7	2.5
Social Support	9.2	3.3
Despair	12.3	5.8
Detachment	8.5	1.6
Disorganization	10.8	4.3
Personal Growth	10	3.3
Posttraumatic Growth	13.1	5.8

The dramatic improvements in the overall percentage of missing data in each scale concluded in the dropping of those 10 incomplete cases from the analysis, securing 120 participants in the final sample. When the proportion of missing values is minimal, insertion of a group mean is a plausible method for replacing missing values (Tabachnik & Fidell, 2006). This differs from less favored approaches such as overall mean substitution based on the range of scores possible for that item and replacing missing values with prior knowledge from an educated perspective. Group means were estimated by calculating the mean of that total scale score across the data set obtained and inserting that value for missing entries (Tabachnik & Fidell, 2006).

**Transformations**

The assumptions of normality and linearity were tested on each ordinal variable prior to conducting any analyses related the research questions in this study. Histograms and residual scatterplots (Q-Q plots) for each scale are included in the appendices. Skewness was given attention in order to decide if a variable transformation was



necessary to strengthen the later analyses. Of these nine variables, four were retained in their original state and five were transformed.

Transformations were attempted on variables where skew extended beyond .500 or -.500; however, if the transformations attempted made this skew statistic worse, the original form was kept. Both dependent variables (posttraumatic and personal growth) were retained in their raw form. Transformed variables that were reflected (due to negative skew) were interpreted in reverse for all correlational analyses (i.e., negative correlations were noted as positive). Descriptive statistics for skewness and kurtosis on each variable, including those transformed, are listed in Table 6.

Table 6

*Transformation Statistics*

<b>Variable</b>	<b>Skewness</b>	<b>Kurtosis</b>	<b>Transf. Skewness</b>	<b>Transf. Kurtosis</b>
Proactive Coping	-.511	.386		
Self-Efficacy	-.284	.411		
Personal Growth	-.524	.213		
PTGI	-.237	-.607		
Social Support	-.720	.686	-.139 (refl. sq.rt)	-.096
Intimacy	-.981	.934	-.145 (refl. log10)	-1.156
Despair	.798	.165	.037 (log10)	-.595
Detachment	1.112	1.021	.273 (log10)	-.707
Disorganization	.574	-.223	.172 (sq.rt)	-.647

\*\*refl.sq.rt= reflected square root transformation; refl.log10= reflected log10

### **Testing of Hypotheses**

The following section restates each research question, the attached hypotheses, and the statistical results of each. Tables of data are depicted either in text or appendices as indicated. A discussion of these results in reference to previous literature, as well as implications for practice, is in Chapter V.

### **Q1: Single Sample T-Test**

*Does posttraumatic and personal growth occur in anticipatory grief experiences?*

**H1.** Personal growth will be evident in comparing means of participants' scores on the Posttraumatic Growth Inventory and Hogan Grief Reaction Checklist personal growth subscale and the designated cut-off scores (PTGI=45; HGRCPG=26). The mean differences will be statistically significant ( $p \leq .05$ ). Effect sizes will be medium using Cohen's  $d$  conventions ( $d > .5$ ) (Cohen, 1988).

This research question was designed to assess whether or not evidence of posttraumatic and personal growth could be detected in anticipatory grief experiences at or above a level indicative of its statistical presence. This question was designed under the assumption that anticipatory grief is activated when an individual receives notification that his or her loved has a terminal prognosis and that this notification can serve as a traumatic event in itself. This question was examined through conducting two single sample t-tests. The first utilized total scores of the PTGI (21 items; 0-5 Likert-type rating; 105 total score possible), and the second utilized subscale scores for the personal growth factor on the HGRC (12 items; 1-5 Likert-type rating; 60 subscale score possible). The t-test for the PTGI compared the scale sample mean to the cut-off value of 45 as deduced from past research (Grubaugh & Resick, 2010; Polatinsky & Esprey, 2000). Using the same method, a cut-off score of 26 was assigned to be indicative of personal growth across the HGRC subscale mean.

### **T-test Results**

The results of both single-sample t-tests in this research question were statistically significant ( $t(119) = 3.44, p = .001$ , Cohen's  $d = .63$  and  $t(119) = 16.46, p < .001$ ,

Cohen's  $d = 3.02$  for the tests of PTGI and PG, respectively). Therefore, the null hypothesis is rejected in each case, indicating that evidence of both posttraumatic growth and personal growth were detected in the sample. The test statistics for each are presented in Table 7 below. Effect sizes are indicated using Cohen's  $d$  interpretation. The practical significance for the posttraumatic growth effect is medium ( $d > .5$ ) and the effect for personal growth is large ( $d > .8$ ) (Cohen, 1988).

Table 7

*Q1 T-Test Results*

	Test Value	t	Cohen's d	Sig.	Mean Diff.	Lower CI	Upper CI
<b>PTGI</b>	45	3.44	.63	.001	7.68	3.25	12.1
<b>PG</b>	26	16.46	3.02	<.001	13.73	12.07	15.38

**Q2: Hierarchical Multiple Regression**

*To what degree does proactive coping explain posttraumatic or personal growth over and above personal growth and other correlated covariates?*

**H2.** There will be a significant ( $p \leq .05$ ) positive relationship between proactive coping and posttraumatic growth and personal growth after other correlated variables are accounted for in the hierarchical regression analyses. This was hypothesized to have a medium effect using Cohen's  $f^2$  conventions ( $f^2 > .5$ )

This research question was designed to assess the explanatory ability of proactive coping as a unique contributor to outcome models of growth. This was accomplished through two hierarchical multiple regression analyses: one per each dependent variable under examination (posttraumatic and personal growth).

## Variable Decisions

The decisions about which explanatory variables to include in each model were made based on initial correlation, t-test, and ANOVA analyses. The demographic items were first explored, followed by the scale variables. Those that elicited significant correlations or group differences among levels of categorical variables were included in initial regression runs. If these variables did not show statistical significance at any point in the model (i.e., nonsignificant in all blocks), they were removed and the regression was run again until a final model was decided upon.

The demographic variables were assessed first. Continuous variables (age, intimacy, life expectancy, time since being informed) were entered into a correlational analysis with each dependent variable (posttraumatic and personal growth). Of these, only time informed and intimacy level exhibited a statistically significant relationship,  $p < .05$ , and only with posttraumatic growth (PTG). These two demographic variables were retained for regression model.

The categorical demographic variables (e.g., gender, region, religious affiliation, ethnicity, relationship to the terminal individual) were explored next. The gender, ethnicity, and religious affiliation variables were collapsed into dichotomous constructs (female/male; Caucasian/Non; Christian/Non) due to sparse category representation. At that point, t-tests were executed for each dependent variable to assess group differences. Region and relationship variables were kept with their original levels and examined in ANOVA with the dependent constructs. All categorical variables failed to produce statistically significant group difference results on these tests and were not included in the regression analyses.

Explanatory scale variables (proactive coping, self-efficacy, social support, despair, detachment, disorganization) all yielded statistically significant initial correlations with the dependent variables. Proactive coping and social support were significantly correlated with both growth constructs. Self-efficacy and all negative grief reaction factors were only significantly related with personal growth. All of the variables mentioned above that produced an initial bivariate relationship ( $p < .05$ ) with the corresponding criterion constructs were retained for the hierarchical regression analyses.

### **Variable Entry and Interpretation**

Following suggestions made by Cohen and Cohen (1983) and Petrocelli (2003), the variables of least interest in answering the explanatory research question were entered first by a data blocking procedure. Demographic variables were entered first, followed by constructs that were not primary variables of interest in the research questions (i.e., despair, detachment, disorganization). Social support was entered next, as this was another variable of interest in the study. Proactive coping was the primary explanatory variable of interest and was kept until the last block of each model. Results of each regression model are described next.

### **Posttraumatic Growth Model Results**

Four variables were retained in three blocks in the regression analysis explaining posttraumatic growth (PTG). The demographic variables, intimacy and time since being informed of the terminal condition, were entered into the first block. This block explained 11.3% of the variance in PTG and elicited statistical significance in the overall model ( $\Delta F(2, 117) = 7.472, p = .001, \Delta f^2 = .13$ ). Each variable independently held significance throughout the regression procedure (both  $p < .01$ ). These variables produced a small,

nearly medium effect ( $f^2 = .13$ ) in the overall model at the first step. Intimacy was inversely related to posttraumatic growth ( $r = -.19$ ) indicating that the more intimately respondents knew the terminal loved one, the less their self-reported posttraumatic growth. Conversely, the more time that had passed since notification of the terminal condition, the more likely posttraumatic growth was reported.

Social support was entered next. As a block, this variable explained an additional 11.2% of variance in the model, which was statistically significant ( $\Delta F(1, 116) = 16.74$ ,  $p < .001$ ,  $\Delta f^2 = .11$ ). The greater reported social support indicated greater evidence of posttraumatic growth. The addition to the PTG model produced an effect size that was also small, but nearly medium ( $f^2 = .11$ ). Lastly, proactive coping was entered into the model to determine to what extent it explained posttraumatic growth over and above all of the previously entered variables. This explanatory variable failed to produce a statistically significant relationship at the  $p < .05$  level ( $p = .087$ ), and exhibited a unique small effect size ( $\Delta f^2 = .02$ ). Proactive coping added 2% of explained variance, while the entire model of variables accounted for 24.5% of the variance in the PTG criterion ( $f^2 = .33$ ). In the statistical sense, it was concluded that proactive coping as a solitary variable did not significantly explain posttraumatic growth over and above other explanatory variables. The practical significance of this variable was apparent to a small degree. This is further explored in the following chapter. The Pearson correlation matrix, model summary, and coefficient table of the posttraumatic growth model are presented in Tables 8 through 10. The assumptions of normality (histogram), linearity (P-P plot), and homoscedasticity (standardized residual plot) were all met. These figures can be found in Appendix J.

Table 8

*Pearson Correlation Matrix (Posttraumatic Growth Model)*\* $p < .05$  level; \*\* $p < .01$ 

	<b>PTG</b>	<b>Time Inf.</b>	<b>Intimacy</b>	<b>Social Support</b>	<b>Proactive Coping</b>
<b>PTG</b>	1.00				
<b>Time Inf.</b>	** .249	1.00			
<b>Intimacy</b>	* -.186	* .154	1.00		
<b>Social Support</b>	** .339	.106	.096	1.00	
<b>Proactive Coping</b>	** .213	-.007	.074	** .297	1.00

Table 9

*Posttraumatic Growth (DV) Model Summary*

<b>Model</b>	<b>Variables Entered</b>	<b>R<sup>2</sup></b>	<b>Cohen's f<sup>2</sup></b>	<b>ΔR<sup>2</sup></b>	<b>Δ Cohen's f<sup>2</sup></b>	<b>ΔF</b>	<b>Sign. of ΔF</b>
<b>1</b>	<i>Time Informed Intimacy</i>	.113	.13	.113	.13	7.47	.001
<b>2</b>	<i>Social Support</i>	.225	.29	.112	.11	16.75	<.001
<b>3</b>	<i>Proactive Coping</i>	.245	.33	.020	.02	2.99	.087

Table 10

*Posttraumatic Growth (DV) Regression Coefficients*

<b>Model</b>	<b>Variables Entered</b>	<b><math>\beta</math></b>	<b>SE</b>	<b>St. <math>\beta</math></b>	<b>t</b>	<b>Sig.</b>	<b>VIF</b>
<b>1</b>	(Constant)	41.40	3.92		10.57	<.001	
	<i>Time Informed</i>	.171	.053	.284	3.22	.002	1.024
	<i>Intimacy</i>	-19.985	7.68	-.229	-2.60	.010	1.024
<b>2</b>	(Constant)	67.91	7.45		9.12	<.001	
	Time Informed	.152	.05	.253	3.04	.003	1.033
	Intimacy	-22.40	7.23	-.257	-3.10	.002	1.031
	<i>Social Support</i>	8.094	1.98	.337	4.10	<.001	1.018
<b>3</b>	(Constant)	35.97	19.91		1.81	.073	
	Time Informed	.157	.05	.259	3.15	.002	1.035
	Intimacy	-23.07	7.18	-.265	-3.21	.002	1.034
	Social Support	7.05	2.10	.294	3.43	.001	1.115
	<i>Proactive Coping</i>	.640	.371	.147	1.73	.087	1.102

**Personal Growth Model Results**

Three variables in three blocks were used in the hierarchical regression explaining personal growth (PG). Negative grief reaction factors were entered first (no demographics were significantly correlated with PG). Of these, only despair was relevant. Detachment and disorganization were not statistically significant and therefore were removed. The regression was run again by entering only despair at this initial block. This explained 20.5% of variance and was statistically significant ( $\Delta F(1, 118) = 30.48$ ,  $p < .001$ ;  $\Delta f^2 = .26$ ). Despair was inversely related to personal growth (st.  $\beta = -.45$ )



indicating that as respondents' despair increased their level of self-reported personal growth decreased.

Social support was entered second. This variable explained 11% of additional variance, which was statistically significant ( $\Delta F(1, 117) = 18.7, p < .001, \Delta f^2 = .12$ ).

Respondents who experienced greater levels of social support tend to report more personal growth. The third and final block contained self-efficacy and proactive coping. These two variables were blocked together given their theoretical overlap (discussed in Ch. II). This block was statistically significant overall ( $p = .006$ ); however, only proactive coping was statistically significant ( $p = .016$ ) while self-efficacy was nonsignificant ( $p = .727$ ).

Participants who reported more proactive coping reported more personal growth, even after controlling for levels of social support and despair. This entire model explained 37.3% of the variance in personal growth. Self-efficacy was removed, and the model was run again for comparison. Proactive coping illustrated significance ( $\Delta F(1, 116) = 10.56, p = .002, \Delta f^2 = .06$ ), and the overall model remained nearly identical ( $R^2 = .372; f^2 = .59$ ).

Despair, social support, and proactive coping represented the final three variables that were retained in the final model and the null hypothesis was rejected in this case. The Pearson correlation matrix, model summary, and coefficient tables for this model are illustrated in Tables 11 to 13. The assumptions of normality (histogram), linearity (P-P plot), and homoscedasticity (standardized residual plot) were all met. The normality histogram appeared to fall along a normal distribution, the P-P plot illustrated a best-fitting line for the data, and the residual plot showed a spread with no detectable pattern. These figures can be found in Appendix K.

Table 11

*Pearson Correlation Matrix (Personal Growth Model)*\* $p < .05$  level; \*\* $p < .01$ 

	<b>PG</b>	<b>Despair</b>	<b>Social Support</b>	<b>Proactive Coping</b>
<b>PG</b>	1.00			
<b>Despair</b>	**-.453	1.00		
<b>Social Support</b>	**-.386	-.127	1.00	
<b>Proactive Coping</b>	**-.459	**-.353	**-.297	1.00

Table 12

*Personal Growth (DV) Model Summary*

<b>Model</b>	<b>Variables Entered</b>	<b>R<sup>2</sup></b>	<b>Cohen's f<sup>2</sup></b>	<b>ΔR<sup>2</sup></b>	<b>Δ Cohen's f<sup>2</sup></b>	<b>ΔF</b>	<b>Sign. of ΔF</b>
<b>1</b>	<i>Despair</i>	.205	.26	.205	.26	30.48	<.001
<b>2</b>	<i>Social Support</i>	.315	.46	.110	.12	18.70	<.001
<b>3</b>	<i>Proactive Coping</i>	.372	.59	.057	.06	10.56	.002

Table 13

*Personal Growth (DV) Regression Coefficients*

Model	Variables Entered	$\beta$	SE	St. $\beta$	t	Sig.	VIF
<b>1</b>	(Constant)	76.90	6.78		11.35	.000	
	<i>Despair</i>	-26.21	4.75	-.453	-5.52	<.001	1.000
<b>2</b>	(Constant)	83.38	6.49		12.84	.000	
	Despair	-23.76	4.46	-.411	-5.32	<.001	1.016
	<i>Social Support</i>	2.985	.690	.334	4.33	<.001	1.016
<b>3</b>	(Constant)	55.43	10.63		5.22	.000	
	Despair	-18.84	4.55	-.326	-4.14	<.001	1.143
	Social Support	2.38	.689	.266	3.48	.001	1.097
	<i>Proactive Coping</i>	.431	.133	.266	3.25	.002	1.233

**Q3: Mediation (PROCESS tool)**

*Does social support mediate the relationship between proactive coping and posttraumatic or personal growth?*

**H3.** Social support will mediate the relationship between proactive coping and posttraumatic and personal growth. This was hypothesized to have a medium effect through examination of  $k^2$  confidence intervals (Field, 2013).

Two mediation models were run to answer this research question. Both models embraced the same explanatory variable (proactive coping) and mediator (social support). The first model employed posttraumatic growth as the outcome variable and personal

growth as the outcome in the second. Both analyses were conducted using the PROCESS tool program (Hayes, 2009; 2013).

Results of these models that displayed the mediating capabilities of social support between proactive coping and growth (posttraumatic and personal) suggest significant mediation effects. This was determined by examining the total effect, direct effect, and indirect effects of each model along with the confidence intervals of the indirect effects. Effect sizes were also interpreted using these 95% confidence intervals.

Each total effect analysis reflects the direct path between proactive coping and growth prior to the mediator entering the model (Field, 2013). The direct effect implies the relationship along this same trajectory after the mediator is entered, which is expected to become weaker (or nonsignificant) after this mediator is added (if true mediation exists). The most important result to examine is the indirect effect, or rather the significance of the explanatory variable on the outcome by way of the mediator (Field, 2013). Through interpreting the SPSS output via the PROCESS model (Hayes, 2009; 2013), statistical significance was determined by examining confidence intervals as opposed to p-values. When the confidence intervals do *not* contain 0, it is assumed that there is a significant mediation in the model (Field, 2013).

### **Mediation Results**

Regression model summaries provided statistical information regarding the amount of variance in the outcome variables explained by the explanatory variables. Proactive coping explained 4.5% of the variance in posttraumatic growth ( $F(1, 118) = 5.6, p < .05$ ) and 21.1% of the variance in personal growth ( $F(1, 118) = 31.53, p < .001$ ) before the mediator was entered into the models. The addition of social support (along

with proactive coping) explained 12.9% of the variance in posttraumatic growth ( $F(2, 117) = 8.66, p < .001$ ) and 27.9% of variance in personal growth ( $F(2, 117) = 22.66, p < .001$ ).

In order to interpret mediation effects and effect sizes, various results were reviewed. The direct effect of proactive coping on posttraumatic growth after the mediator was inserted became nonsignificant ( $p = .176$ ). This implied a significant mediation effect, and this was confirmed by observing the confidence intervals corresponding to the indirect effect (mediation path). Confidence intervals of 95% were set for this analysis, along with an employed bootstrapping technique to utilize multiple random samples (set at 1,000) within the data set. Because these intervals did not contain zero (.12, .83), it is estimated with 95% confidence that this is a true effect and would generalize to the larger population of anticipatory grievers. Confidence interval effect sizes were interpreted using kappa-squared ( $k^2$ ) criteria (small = .01, medium = .08, large = .25) (Field, 2013; Preacher & Kelley, 2011). The CIs for the posttraumatic growth model did not contain zero (.029, .173) and produced a medium effect ( $k^2 = .089$ ).

The direct effect of proactive coping on personal growth remained statistically significant ( $p < .001$ ) after the mediator was entered. This is where the sensitivity of the process model (Hayes, 2013) used in this analysis supersedes previously used regression tactics used in mediation (Baron & Kenny, 1986). The process model is able to detect small mediation effects, even when the direct effect does not reduce the magnitude of the effect or become nonsignificant, as occurred in this case. The confidence intervals for the indirect effect also did not contain zero (.04, .30). The effect size CIs for the personal growth model did not contain zero (.027, .174) and produced a medium effect ( $k^2 = .087$ ).

The regression model summaries (total and direct effects) and indirect effect statistics are provided in Tables 14 and 15. Following these tables is a comprehensive illustration of effects at each path of the mediation procedure (Figure 3). Variables in the tables are abbreviated as follows: proactive coping (PC), social support (SS), posttraumatic growth (PTG), and personal growth (PG).

Table 14

*Model Summaries and Total Effects*

<b>Model</b>	<b>Variables &amp; Path</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>F</b>	<b>dfs</b>	<b>p</b>
Overall Model	Posttraumatic Growth	.359	.129	8.66	2, 117	<.001
Total Effect	Posttraumatic Growth ( <i>Path c</i> )	.213	.045	5.6	1, 118	.020
Overall Model	Personal Growth	.528	.279	22.66	2, 117	<.001
Total Effect	Personal Growth ( <i>Path c</i> )	.459	.211	31.53	1, 118	<.001

Table 15

*Direct & Indirect Effects*

Model	Variables & Path	Effect t	SE	t	P	Lower CI	Upper CI
Direct Effect	Posttraumatic Growth (Path c')	.536	.394	1.36	.1761	-.2438	1.3154
Indirect Effect	Posttraumatic Growth (Path a-b)	.392	.176 (bootstrapped)			.1215	.8340
Direct Effect	Personal Growth (Path c')	.614	.134	4.59	<.0001	.3496	.8786
Indirect Effect	Personal Growth (Path a-b)	.132	.066 (bootstrapped)			.0370	.3023

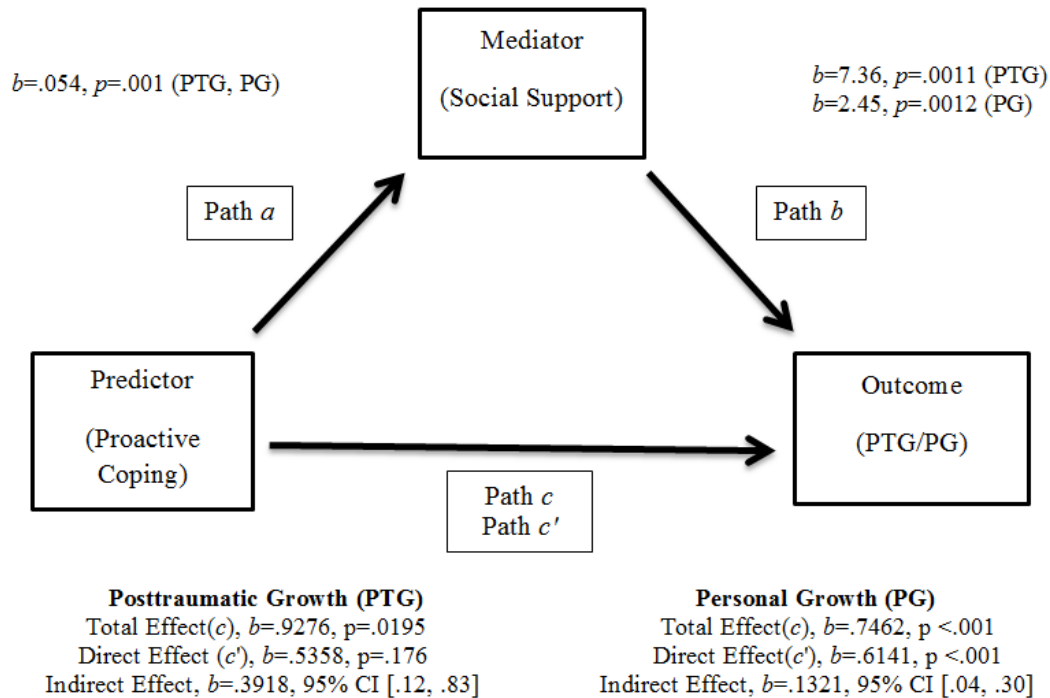


Figure 3. Mediation Model Effects

#### **Q4: Canonical Correlation**

*To what extent can time since learning of prognosis and life expectancy (variable group 1) predict grief reactions (variable group 2)?*

##### **H4. Exploratory**

This research question was designed to assess the relationship between two sets of variables in the current study. The first set of variables consisted of the grief reaction factors obtained from the HGRC: despair, disorganization, detachment, and personal growth. The second set of variables consisted of two time components: time since notification of the dying individual's terminal condition and life expectancy. In the canonical correlation analysis, the two explanatory variables were linearly combined to form a "synthetic" variable, and the four criterion variables were combined into a synthetic criterion variable (Sherry & Henson, 2005, p. 39). The combination of these variables yielded two possible canonical dimensions, which is equal to the number of variables in the smaller set (i.e., two). The synthetic variable composed of the grief reaction group served as the criterion variable in the analysis. The synthetic explanatory variable consisted of the time components from the second group. A Pearson correlation matrix of the variables within this analysis is provided in Table 16. Preliminary analyses and canonical correlation results follow.



Table 16

*Pearson Correlation Matrix of Canonical Correlation Variables*

\*p &lt;.05 level; \*\*p &lt;.01

	<b>Despair</b>	<b>Detachment</b>	<b>Disorg.</b>	<b>PG</b>	<b>Expectancy</b>	<b>Time Inf.</b>
<b>Despair</b>	1.000					
<b>Detachment</b>	** .773	1.000				
<b>Disorganization</b>	** .688	** .761	1.000			
<b>PG</b>	** -.453	** -.398	** -.410	1.000		
<b>Expectancy</b>	-.088	.114	.041	.058	1.000	
<b>Time Informed</b>	-.087	-.063	-.021	.086	.186	1.000

**Preliminary Analyses**

Prior to running the canonical correlation, a series of tests was performed to determine if variables in this analysis were uniquely related to one another. The two time constructs (life expectancy, time since informed) were coded into two dichotomous variables due to missing data concerns: reported or not reported. Independent sample t-tests were executed for each grief reaction factor on the two levels of these new variables. There were no statistically significant differences between those who reported these time components and those that did not on any grief reaction factor.

Correlations were also computed between time variables and both original and transformed grief reaction factors (three of the four factors were transformed). Similarly, no significant correlations were discovered among the time and reaction variables. Grief reaction factors were all significantly intercorrelated as they emerged from the same scale. Time variables showed no significant intercorrelations.

### **Canonical Correlation Results**

Although none of the preliminary tests suggested statistical relationships between these two sets of variables, a canonical correlation was executed to determine if the sets elicited significant results when combined into synthetic explanatory and criterion variables and in attempt to maximize potential correlations. Only completed time variables (i.e., reported) were included in this analysis. This significantly reduced the sample size for this analysis because only 58 cases (48.3%) included life expectancy data. There were two canonical dimensions possible as there were two explanatory variables (time) in the test along with four criterion (reaction factors). The dimension reduction analysis produced canonical coefficients that were not statistically significant ( $p=.297$ ;  $p=.294$ ). Although this research question posed an exploratory hypothesis, results suggested a relationship did not exist among these variables in this sample of anticipatory grievers.

### **Conclusion**

The results of the current study were reported in this chapter. Participants reported statistically significant evidence of posttraumatic and personal growth in their anticipatory grief experiences. Proactive coping did not show statistical significance over and above intimacy, time since informed, and social support in the explanation of posttraumatic growth, but did exhibit a small effect. In contrast, this explanatory construct of interest was both statistically and practically significant as an explanatory factor, over and above despair and social support in the personal growth model. Social support was found to significantly mediate the relationship between proactive coping and both forms of growth. No evidence was uncovered concerning the relationship between

time since notification of the terminal prognosis and life expectancy and the grief reaction factors of despair, detachment, disorganization, and personal growth.

The next chapter revisits the theory testing discussion (*Grief to Personal Growth Theory*) presented in Chapter I of this study. The discussion also includes an illustration of the similarities between pre and post death bereavement supported by these outcomes. The results of each research question are further explored in the context of previous literature, and implications of these results for practice are provided. The chapter concludes with suggestions for future research and a description of limitations in this investigation.

## **CHAPTER V**

### **DISCUSSION**

The following discussion addresses the practicality, or meaning, extracted from the current investigation. These study outcomes are organized by sections exploring the guiding theory, anticipatory vs. post-death experiences, and each research question. Each segment is discussed in the context of related literature. The application of these findings to clinical practice (e.g., counseling, palliative care support, counselor education, etc.) follows in a subsequent section. Research implications and suggestions are also discussed. The final chapter concludes with limitations of this study.

#### **Grief to Personal Growth Theory**

A primary purpose of this study was to test the congruency of Grief to Personal Growth Theory within experiences of anticipatory grief. This was done through assessing four factors said to represent core grief according to GTPG theorists: despair, detachment, disorganization, and personal growth (Hogan et al., 2001; Hogan & Schmidt, 2002). Grief to Personal Growth authors indicated long ago that more research is needed to test the validity of anticipatory grief work in samples of varied relationships (e.g., child, sibling, friend, etc.) to the dying person (Hogan et al., 2001). These authors rejected the notion that anticipatory grief lessens the intensity and severity of post-death outcomes; however, their discussion of anticipatory grief did not address whether or not the same constructs of their model also existed in these anticipatory experiences (Hogan et al., 2001). The current investigation contributed to filling that gap and broadening the

professional usage of this theory and related instrumentation (HGRC). The theory was built by examining the grief experiences of adults who recently had lost a loved one (<3 years) (Hogan et al., 2001). The participants in the current study were anticipating a future loss due to a loved one receiving notice of a terminal condition.

This detection of these four grief reaction factors were not only present, but considerable. The observed range of scores in this sample encompassed 84 to 93% of the possible score ranges in these four subscales. This finding indicates the heterogeneity within this group of anticipatory grievers in relation to their grief experiences. The ranges of scores reflect disbursement of participants endorsing little-to-no agreement with the items reflecting these grief reactions to high agreement. Mean scores and standard deviations across these subscales in the present sample were similar to findings in a model testing study of this theory with a slightly larger sample ( $N = 148$ ) of post-death grieving adults (Hogan & Schmidt, 2002). The results of the current study provide support for the applicability of Grief to Personal Growth Theory with anticipatory grievers.

### **Anticipatory and Post-Death Grief**

There is still much debate in the field about the similarities and differences in anticipatory grief compared to bereavement following a death. Contrary to popular belief (Hogan et al., 2001), anticipatory grief is not intended to remove or reduce the existence of post-death grief (Fulton, 2003). Instead, complications in anticipatory mourning have shown a tendency to predispose individuals to poorer bereavement outcomes following the death (Rando, 2000a). A significant portion of grief work is initiated and oftentimes intensified during these anticipatory times (Salmon et al., 2003).

Readers and researchers alike cannot assume that the experiences of anticipatory grievers will have similar or different grief reactions after the death of their loved ones, and due to the cross-sectional design in the current sample, this could not be determined at this time. Past authors have distinguished anticipatory grief as the response to an expected death or loss, while post-death grief mirrors the reality of that loss (Corr, 2007). Other researchers describe the grief process due to terminal illness as occurring in two phases of grief; the illness-to-death phase and the after-death phase (Hogan et al., 1996). As noted in the previous section, participants endorsed scores across a wide range of grief reactions on an assessment tool built on post-death experiences. It is logical to conclude from observing the data in this study that while anticipatory grief and post mortem grief may differ in degree and intensity, many of the same characteristics are present in each experience.

This finding is further supported by previous research that indicated how anticipatory grief experiences correlate with stages of post-death mourning as individuals cope with the loved one's advancing illness and prepare to face an inevitable death (Kübler-Ross & Kessler, 2005; Leibenluft et al., 1988; Lindemann, 1944; Sweeting & Gilhooly, 1990). The results of this study suggest that grief models hold the potential to fluidly apply to both pre and post death experiences.

### **Research Questions**

Four research questions were designed and analyzed in the current investigation. Hypotheses, analytic strategies, and corresponding statistical results were presented in previous chapters. The following discussion links the practical significance of these findings, alignment with results from prior investigations, and suggestions made by other

authors in the grief and loss field of mental health. Implications for use of these conclusions are discussed in the next section.

### **Growth in Anticipatory Grief**

The first research question in this investigation explored whether or not posttraumatic growth (as measured by the PTGI) and personal growth (as measured by the HGRC) were evident to a significant degree in experiences of anticipatory grief. To date, these two constructs have been extensively studied with grieving populations (Hogan et al., 2001; Hogan & Schmidt, 2002; Tedeschi & Calhoun, 1996), but did not receive primary attention in an investigation prior to a death occurring until recently (Danahauer et al., 2013). Cut-off scores for each of these variables were created using previous literature and deductive reasoning. These scores represented the point at which readers could logically (and statistically) assume that growth was indicated given *p*-values and effect sizes.

Both posttraumatic growth and personal growth scale means were significantly higher than these cut-off scores and each exhibited substantial effect sizes ( $d < .5$  and  $d < .8$ , respectively) (Cohen, 1988). Given the statistical and practical significance of these two findings, readers can confidently assume that growth in anticipatory grief is not only possible but probable. This supports the prior assumption that posttraumatic growth can be considered not only an outcome, but a process, of a traumatic experience (Tedeschi et al., 1998b; Walter & Lopez-Baez, 2008). Hogan et al. (1996) also reported in their longitudinal research with adult grievers that personal growth was experienced to some degree by participants in all phases of their model of experiential bereavement. These

phases included a “losing the battle” point where participants became aware of the impending death of their loved one and prior to the passing (Hogan et al., 1996).

This finding rejects Grubaugh and Resick’s (2010) suggestion that bereavement be excluded from investigations of traumatic growth due to its qualitative difference than other traumas (e.g., rape, assault, etc.). When an individual is confronted with stressors that disrupt current assumptions of his or her worldview, identity, or spirituality, this can result in what researchers consider trauma (Hogan & Schmidt, 2002; Pearlman & Saakvitne, 1995; Tedeschi & Calhoun, 2009). Leading researchers in anticipatory grief have declared that the assumptive worldview of these individuals is what is in need of mourning during these experiences (e.g., assuming the loved one would be present for future milestones) (Rando, 2000a). The present investigation supports the view that hearing of a loved one’s terminal condition can qualify as a traumatic event. This is supported by recent research assessing posttraumatic growth in women living with a cancer diagnosis (Danahauer et al., 2013).

These findings also suggest that growth can develop fairly quickly as a result of receiving distressing news of a loved one’s terminal condition, even when the given life expectancy (by medical personnel) is limited. The average time that had passed since the notification of their loved ones’ condition at time of participation in the current sample of anticipatory griever was less than one year (11.6 months). The average life expectancy was less than one year (9.3 months). Given this limited spread of time with their loved one in combination with the reported emotional closeness or intimacy with them ( $M = 8.09/10$ ), it is reasonable to assume that this sample of anticipatory griever was experiencing a significant transition in their lives. These data mirror the sample



characteristics of similar post-death research where 65% of the sample had reported it had been less than three years since the passing of their loved one (Hogan & Schmidt, 2002). The Hogan and Schmidt (2002) investigation was a theory validation study encompassing the theory of this current project (Grief to Personal Growth) as well as many of the same variables (grief reaction factors). Grief was conceptualized to begin at the time of death in that study, while anticipatory grief was explored in this investigation beginning at the time of notification of the terminal illness.

The negative grief reaction factors (despair, detachment, disorganization) were also present for these people. The implication here is to consider that while an anticipatory griever is experiencing these negative reactions, he or she may also be experiencing elements of growth simultaneously. This finding rejects the stage (Kübler-Ross, 1969) and task models (Worden, 2002) of grief which suggest that an individual must move through certain stages or complete certain tasks in order to gain a sense of acceptance or positive change. This research most aligns with the dual-processing model (Stroebe & Schut, 2010) stance that suggests grievers oscillate between two forms of coping (loss and restoration). It is unclear whether or not participants were experiencing negative *or* positive grief reactions (an oscillating effect) at the time of participation, or if *both* negative (detachment, disorganization) and positive grief (personal growth) reactions were reported simultaneously. Regardless, the various reactions reported in such a wide range is supported by previous research findings that indicate “many phases overlap and recur as the bereavement process changes from consuming the survivor to re-experiencing episodes of grief interspersed with periods of relative peace and relief” (Hogan et al., 1996, p. 48).

This conclusion may hold an exception in the case of despair. This construct was strongly inversely related to personal growth in the current study. This finding both supports and rejects the conclusion made by Hogan and Schmidt (2002) who stated that “grief and personal growth do not exist simultaneously” (p. 630). The findings of the current study support this statement in the context of despair, but reject it in terms of the detachment and disorganization constructs. Each of the above models (Hogan & Schmidt, 2002; Kübler-Ross, 1969; Stroebe & Schut, 2010; Worden, 2002) have been constructed and utilized in the study of post-death bereavement experiences; therefore, readers should take these conclusions cautiously as the current study only observed experiences of anticipatory grief.

This research also determined that the constructs of posttraumatic growth and personal growth are significantly related ( $r = .64$ ;  $p < .01$ ); however, they are indeed separate constructs. The PTGI and the PG subscale of the HGRC have similarities, and even contain the exact same item (“I have more compassion for others.”) within their structure. In spite of these similarities, the results of this investigation conclude that they are measuring different nuances of the human growth experience.

Hogan and Schmidt (2002) stated that the “belief that growth can emerge following difficult life events” has been extensively studied by researchers and practitioners “using different labels” (p. 617). They went on to explore various growth models, but failed to connect the reader to how growth in their model is alike or distinct from these past constructions. The results of the current study only explored two theories of growth (personal and posttraumatic); however, these findings suggest that various models exist for good reason: they are examining different subsections of a highly

complex construct. If personal and posttraumatic growth encompassed the same phenomenon but just used different labels, the relationships between them and other constructs in this study would have been nearly identical. This was not the case. Only the variables of proactive coping and social support were significantly, positively related to both growth variables, and to different degrees. Readers and researchers are encouraged to consider which growth model best fits their practice or empirical needs before selection and implementation.

### **Explanatory Power of Proactive Coping**

Scholars in the field of stress and coping have encouraged more research that examines *resource* factors (as opposed to risk factors) or facilitating events that enhance the capacity for individuals to successfully navigate periods of severe stress and achieve growth (Cieslak et al., 2008, p. 451; Tedeschi & Calhoun, 2009). There is also a scarcity of research involving future-focused coping dispositions in trauma investigations (Vernon et al., 2009). The second research question in this study explored the ability of proactive coping (as measured by the PCI) to explain scores of posttraumatic and personal growth. This was accomplished by running two separate hierarchical multiple regressions: one for each of these outcome variables. Proactive coping was entered last into the models so as to determine how much unique variance in these positive outcomes could be explained by it, over and above other related constructs.

Findings of these analyses suggest that proactive coping does contain unique explanatory power in personal growth ( $p = .002$ ), but not in posttraumatic growth ( $p = .087$ ). Proactive coping did elicit small effect sizes for both models ( $f^2 = .02$  to  $.06$ ); therefore, the utility of this disposition should not be overlooked for practice. Self-

efficacy was included in this investigation because of the “theoretical overlap” with proactive coping suggested by past researchers (Vernon, Dillon, & Steiner, 2009, p. 118). The GSE scale was intended to be combined with other more comprehensive instruments, as was the case in the current study where it was included in the PCI section of the instrument (Schwarzer & Jerusalem, 1995). The results of this study support the theoretical overall suggestion in the context of explaining only personal growth in anticipatory grief. While the two constructs (proactive coping and self-efficacy) were highly intercorrelated ( $r = .67$ ), each behaved quite differently in relation to the growth constructs. Self-efficacy failed to significantly correlate with or explain posttraumatic growth and did not explain unique variance alongside of proactive coping in the personal growth model.

The concept of perceived self-efficacy captures to what degree a person believes how well he or she will fare in adversity (Bandura, 1997; Bosscher & Smit, 1997; Cieslak et al., 2008). Proactive coping implies that a person in a similar, adverse situation would strive for supportive resources, build-up resistance factors, and optimistically focus on opportunities for growth (Bode et al., 2007; Schwarzer & Luszczynska, 2008). The findings of the current study would suggest that these phenomena do possess a similar theoretical foundation; however, proactive copers are more likely to take *action* by seizing potential moments to embrace growth. The action component was what produced statistical and practical relevance in the present study (self-efficacy did not). This outcome aligns strongly with past researchers who suggested that the notion of *proactivity* implies the willingness and ability to take action in influencing a situation to increase the likelihood of positive change during any intensely stressful experience

(Aspinwall & Taylor, 1997; Kirby et al., 2002; Riley et al., 2007; Schwarzer & Luszczynska, 2008). These findings also support the existential emphasis on choice and responsibility. This theory asserts that people are not doomed to passively wait for things to happen, but that they are capable of taking active measures to prevent or diminish probable threat and adverse outcomes (Gan et al., 2007; Ouwehand et al., 2008).

### **Mediating Effects of Social Support**

Social support was shown to facilitate the experience of personal growth in structural equation modeling used to validate the *Grief to Personal Growth Theory* (Hogan & Schmidt, 2002). Proactive copers take action to accumulate supportive resources, take steps to prevent depletion of assets, and mobilize these strengths when they are needed most (Greenglass & Fiksenbaum, 2009). Perceived in this way, social support was hypothesized to mediate the relationship between proactive coping and growth; thus strengthening the premise of this construct in the guiding theory in the study. idea was supported by past research which demonstrated that social support can serve as a mediator influencing the severity and longevity of grief experiences (Worden, 2002). The third research question in this study assessed this notion by utilizing two separate mediation models containing proactive coping (explanatory variable), social support (mediator), and posttraumatic or personal growth (outcomes).

Traits such as the ability to relate to others, or build strong emotional bonds, and support seeking behavior have been shown to be positively related to personal and posttraumatic growth in past investigations (Danhauer et al., 2013; Lev-Wiesel & Amir, 2003; Riley et al., 2007; Tedeschi & Calhoun, 1996). The present study aimed to identify a potentially facilitative factor that led to these resources. Social support was shown to

significantly mediate the relationship ( $p < .01$ ) between proactive coping and posttraumatic growth as well as personal growth (medium effects). This construct also provided strong and consistent abilities in the regression analyses (Q2) to explain growth ( $p < .001$ ).

Because of these findings, it can be inferred that social support holds the greatest explanatory power of growth in this investigation. Proactive coping is then concluded to be the active mechanism which produces this resource for anticipatory grievers. Recall that the social support construct was built from two subscales from the PCI: Emotional Support Seeking and Instrumental Support Seeking. It can be inferred that this *seeking* behavior is an active process and launched by proactive coping. In other words, social support is conceptually an outcome of proactive coping that mediates the successful navigation through grief reactions to these positive experiences during a highly stressful experience. These results are supported by past research describing these two constructs (proactive coping and social support) as existent in a synergized relationship (Greenglass & Fiksenbaum, 2009), as well as the mediating capabilities of social support on experiences of growth during grief (Benkel et al., 2009; Worden, 2002).

Social support was also a significant explanatory factor of growth in the second research question and is believed to be a potential outcome of the proactive coping process. Social support in this study explained approximately 11% of the variance in both forms of growth, over and above previous constructs, and was inversely correlated with despair, although that bivariate relationship was not significant ( $r = -.154$ ;  $p = .092$ ). These results imply that social support, especially when connected to proactive coping, is a facilitative factor in producing positive experiences in anticipatory grief. These

findings are supported by previous research indicating that lack of social support can lead to complications in the mourning process or incidents of delayed or disenfranchised grief (Attig, 2004; Doka, 2007b; Gamino et al., 2000; Worden, 2002).

### **Time and Grief Reaction Factors**

Authors of the Grief to Personal Growth Theory used time-related data in their validation study (Hogan & Schmidt, 2002); however, the participants in their study had already lost a loved one (< three years). Therefore, the time variable was operationalized by how long it had been since the death. This theory has not yet been used in anticipatory grief studies; therefore, data was collected on new time components: time since notification of the terminal person's condition ( $M = 11.6$  months) and the estimated life expectancy as determined by medical personnel ( $M = 9.3$  months). The fourth research question assessed the relationship between these time variables and grief reaction factors as defined by GPGT (despair, detachment, disorganization, personal growth) in an exploratory manner. This was accomplished through the creation of two synthetic sets of variables and conducting a canonical correlation analysis. This strategy combines each set of these variables into one new (synthetic) explanatory and one criterion variable. These new variables are statistically analyzed similarly to a simple regression on each canonical dimension. The results of this canonical correlation did not indicate a significant relationship between the two sets of variables on either dimension ( $p = .294$ ;  $p = .297$ ). This finding suggests that within the pre-death period of anticipatory grief, between diagnosis/prognosis and the passing, experiences of these grief reactions remain fairly stable.

### **Implications for Practice**

The implications of this work are intended to benefit and inform both the practice of counseling as well as other related helping professions that serve anticipatory grievers (e.g., Hospice Chaplains, bereavement coordinators, palliative nurses, etc.). Counselor educators are encouraged to refer to this information in a variety of academic classes and field experiences in an effort to increase the grief and loss competencies of counselors-in-training. Implications for practice based on each research question are described below. An intention of this project was to create a modern and more informed picture of the anticipatory grief experience, as this is given far less research attention in the field of grief and loss (as opposed to post-death bereavement). The concept of possible (and probable) *growth* was given strong emphasis in attempt to shift professional viewpoints away from addressing dysfunction and into a strength-based perspective.

### **Research Question Implications**

Various constructs were given primary attention in each of the four research questions in the current study. Implications for practice can be deduced from results that uncovered the interplay of proactive coping, social support, and both forms of growth. Helping professionals and counselor educators can gain perspective of the intricacies in the anticipatory grief experience by many of these findings.

Practitioners can begin by assessing the already-present coping disposition of clients as they prepare to navigate anticipatory grief. Indication of these ways of being and views of the concept of stress suggest a safeguard against adverse grief reactions. Proactive coping was significantly, inversely correlated with all negative grief reaction factors as well ( $r = -.35$  to  $-.47$ ). This active disposition also holds the power to potentially



predict experiences of growth, even prior to the physical death. Because these regression effect sizes were small, practitioners should view these data conservatively. Proactive coping is considered a dispositional characteristic by the authors of the PCI (Greenglass et al., 1999); however, research on viewing this construct as a set of competencies to be taught does exist and is available for use (Aspinwall & Taylor, 1997; Bode et al., 2007).

Practicing professionals should also examine the current levels of social support and support seeking behaviors reported by clients faced with anticipatory grief. It is logical to assume that proactive copers accumulate social support resources when faced with anticipatory stress when it is most needed to optimize an opportunity for growth. This was determined to indicate a mediating effect between proactive coping and growth by way of social support, and in turn, social support also provided strong and consistent explanatory abilities in the regression analyses as an independent variable. From these findings, social support can be considered an outcome of a proactive coping process and a strong, positive factor explaining growth during anticipatory grief.

Both posttraumatic and personal growth were indicated to a statistical and practical degree in this sample of anticipatory griever. Many conclusions and discussions could follow these findings. First, notification of a loved one's terminal illness can constitute a traumatic experience which can initiate feelings of growth. Secondly, these results reemphasize that growth in the face of grief is not only an outcome but an ongoing process that can begin prior to a physical death of a loved one. Helping clients and patients to draw awareness of these characteristics and changes (e.g., compassion for others, tolerance of self, etc.) should be a powerful consideration in treatment. Anticipatory griever could potentially be empowered from hearing the

message that they can be “quantitatively and qualitatively different” as a result of their experience, and that the goal of successful navigation of these events can be greater than a return to previous levels of functioning (Wright & Hogan, 2008, p. 354).

Time variables were not shown to correlate with grief reaction factors individually (bivariate) or collectively (canonical). This was an exploratory analysis untied to past research; however, implications can still be interpreted. *Grief to Personal Growth Theory* houses each of these grief reaction constructs. Under this theoretical lens, it can be inferred that the experience of these grief factors remains fairly stable during the anticipatory period. This research also indicated that anticipatory grief and post-death grief share these reaction characteristics. Practitioners can normalize this process for anticipatory grievers, emphasizing the relevance of their grief work and experiences even while their loved one is living.

### **Additional Variable Implications**

Other variables than those given primary attention in the research questions, also deserve some exploration due to their significance in the study. All three negative grief reaction factors were intercorrelated ( $r = .70$  to  $.78$ ), although only despair registered as a statistically significant factor explaining personal growth. It was found that feelings of despair are inversely related to experiences of personal growth during anticipatory grief. Practitioners are encouraged to assess evidence of despair (e.g., hopelessness, heaviness, little control over sadness, etc.) when working with this population. Addressing and alleviating these despair symptoms can serve as a primary point of treatment. While despair symptoms are strong, personal growth may be sturdily suppressed. Intriguingly,

practitioners can also choose to focus on increasing a strength-based skill set or disposition as opposed to aiming at decreasing the negative symptom of despair. Despair also was moderately and inversely correlated with proactive coping ( $r = -.36$ ) and general self-efficacy ( $r = -.41$ ). Although these constructs were not directly explored further in relation to one other in this particular study, it should be noted that proactive copers and those who have high self-efficacy may tend to report less feelings of despair in anticipatory grief experiences. Despite what end of this continuum earns practitioner focus, emphasis on decreasing feelings of despair and increasing empowering coping resources is estimated to yield a gain in experiences of personal growth.

Emotional closeness with the terminal person may become a consideration when working with anticipatory grievers. The average participant's rating of perceived closeness or intimacy with the terminal person was high ( $M = 8.09/10$ ), indicating that, overall, those who chose to participate in this study were quite close with their loved one. These perceived levels of intimacy with the terminal individual were shown to be statistically, significantly ( $p=.01$ ) related to posttraumatic growth. This variable was blocked with another demographic construct (time since being informed) which produced a statistically significant effect ( $p = .001; f^2 = .13$ ). The relationship between intimacy and posttraumatic growth was inverse ( $r = -.19$ ); therefore, practitioners can conclude that the closer a person is to his or her terminal loved one, there may be less evidence of posttraumatic growth in anticipatory grief. Due to this mild relationship, practitioners should use caution when considering intimacy in explanatory scenarios. Intimacy was not significantly correlated with any other construct in the study.

The demographic variable of time since being informed of the terminal condition showed to be positive and statistically significantly related to posttraumatic growth ( $p = .002$ ). This implication holds that the longer an individual has had to process his or her experience in relation to the news of this inevitable event, the more posttraumatic growth is expected. This finding is supported by recent research that uncovered an increase in PTG over time among women who were living with a breast cancer diagnosis, much of which occurred in the first few months of hearing of this condition (Danhauer et al., 2013). This time variable was not significantly correlated with personal growth or any other variable in the investigation.

### **Directions for Future Research**

Directions for future research are framed in a prominent theme that emerged throughout the data collection process and again in the data analysis. The field of counseling, and other helping professions, could stand to benefit through an increase in our professional understanding of the relationship between the psychological construct of anticipatory grief and the medical decision to assign a terminal prognosis. The dynamic between these two ideas has a direct implication as to how professionals can operationally assume when and how anticipatory grief begins.

Anticipatory grieverers represent not only a difficult-to-reach population, but can be thought of as a difficult-to-define population as well. This definition may be met with a lack of agreement from the terminally ill, families of these individuals, and the medical community. Over the course of this investigation (data collection phase), 156 letters were mailed, more than 170 phone calls were placed, and over 1,000 emails were sent to professional agencies across the United States in an attempt to establish collaborative

networks with practitioners who serve anticipatory grievers. Three amendments to the proposed sampling plan were initiated and the data collection window spread across 404 days to reach a minimally required sample size ( $N = 130$ ).

These attempts to spread word of this participation opportunity led to several formal and informal conversations with counselors, social workers, Hospice Chaplains, bereavement coordinators, grief researchers, support-group leaders, counselor educators, oncology nurses, and other helping professionals who have contact with this population. The implications of these conversations were not included in the research proposal that received IRB-support; therefore, details and quotes taken from these exchanges are not included in this document. A summary insight would be reduced to this message: These professionals were not at all surprised with the complications in data collection due to several barriers in defining the initiation of anticipatory grief. In addition, many (most) were unable to collaborate on this project for a variety of reasons, including hesitant administration. Future research should be aimed at uncovering various forms of agreement, disagreement, and confusion between the psychological and medical fields as to what is considered appropriate prognosis in cases of terminal illness and the manners in which it is discussed for all parties concerned.

The issue here is two-fold. Family members and friends of the terminally ill are often committed to “hoping for life” as opposed to “grieving the death that has not occurred” (Hogan et al., 2001, p. 19). In her work on stages of grief, Kübler-Ross (1969) also stated that “the one thing that persists throughout all stages is hope” (p. 138). In accordance, medical personnel may resist (or delay) assigning terminal labels for sake of the patient’s families. The issue then becomes an “at what cost to whom?” argument. In

cases of a delayed prognosis, the terminally ill themselves are denied palliative services. Hospice eligibility is often dependent on an agreement between a medical doctor and a hospice clinical director that the patient has six months or less to live (Hospice Foundation of American, 2013). Despite this six month entry point for eligibility, only approximately 11.4% of Hospice patients receive care for longer than 180 days before death or discharge. The median length of stay in Hospice care in recent years was a mere 19.1 days (National Hospice and Palliative Care Organization, 2012).

In the current study, only 48.3% of participants chose to (or were able to) provide information related to life expectancy as assigned by medical personnel, although all indicated they were experiencing anticipatory grief and that the loved person was still living at the time of participation.. Additional data on this item were obtained by a few participants who chose to write in a comment. One participant stated, “No terminal condition has been diagnosed professionally.” Another stated, “We don’t know [life expectancy] as we don’t ask.”

The results of the current investigation suggests that the barrier between hearing of a loved one’s terminal condition and accepting the future loss as inevitable and time-limited (e.g., six months or less) reduces the likelihood that the person will engage in anticipatory grief. Again, this process is not intended to replace post-death bereavement, but can reduce the likelihood of later complications in the grieving process (Fulton, 2003; Rando, 2000). Helping professionals can play a key role in inviting family members to engage in pre-loss grieving and educate them on the potential benefits of this practice (e.g., resolving unfinished business), however difficult it may be for the individual to accept. A cornerstone of the American Counseling Association Ethical Standards clearly

asserts that counselors are expected to act in ways that “avoid harming their clients and to minimize or remedy unavoidable or unanticipated harm” (ACA, 2014, p. 4). Emotional pain (e.g., despair) associated with grief is fairly inevitable, as it has been shown to be part of an empirically validated trajectory of the experience (Hogan & Schmidt, 2002). Encouraging a client to approach and explore their anticipatory grief addresses the above ethical standard by making attempt to minimize the unavoidable “harm” of the post-loss process. Lastly, recall that in order for posttraumatic growth to occur, a trauma must be accounted for first (e.g., shattered assumptions of future plans with this person). The future of anticipatory grief research would benefit immensely from an exploration of this preliminary issue. Qualitative investigations with multiple stakeholders (e.g., oncologists, Hospice directors, patients themselves, families, thanatologists, etc.) could give readers a much richer understanding of the barriers that exist for all parties involved in these experiences.

Another idea for future research would include a follow-up investigation with the present sample to determine the degree of their growth experiences over time, and likely after the death of their loved one. A total of 78 participants provided email information in order to be contacted for follow-up research on this topic. Additional studies will be designed using mixed methods approaches. Phenomenological methods could gather more information as to what other variables may be present in participant lives that best explain personal or posttraumatic growth (regression models in this study explained a 24.5 to 37.2% of growth variance). Other quantitative methods could track the changes in grief reaction factors and levels of social support in participant lives post-death as well. A social network analysis could also better interpret the complexities of social support

systems that were in place for anticipatory griever. This would be especially important information given that it is likely that the main source of social support for some participants was the terminal person (e.g., spouses).

### **Limitations**

The current study contains limitations for consideration prior to assuming potential generalizability of these findings. The first of these is due to the sampling method, which contained nonrandom purposeful and convenience approaches. The sensitive nature of the anticipating event (i.e., having a terminal loved one) required a considerable level of collaboration and communication with participating agencies and professionals who were given discretion to invite anticipatory griever to participate. Although organizations such as Hospice track patient numbers, there is no measurable way to define the population of anticipatory griever (e.g., friends or family members of patients). Without the ability to identify parameters associated with this population, other more rigorous forms of sampling (e.g., random sampling) on a national scale remain elusive. Because of this issue, the external validity of these outcomes is limited.

A second limitation concerns the impracticality of reporting a response rate. It was impossible to determine how many participants who met study criteria received the invitation to complete the survey. This was especially difficult in cases where hard copies were mailed out to third party professionals for disbursement (i.e., over 500 hard copies were sent to collaborators). A total of 31 hard copies were completed and returned. These collaborators were not asked to report how many were passed onto anticipatory griever. Additionally, the Qualtrics form (online survey) tallied 428 response submissions to the instrument. Agency professionals who received an invitation to



collaborate on this project were told they could browse the questions to determine their own professional level of comfort asking this of their families. Additionally, the social media approach to promoting the opportunity to participate held an indeterminable reach (the page itself received 459 “likes”). A total of 89 responses were believed to be completed by anticipatory grieverers as evidenced by the initial item assessing whether or not the person was in an anticipatory grief situation (i.e., his or her loved one was still living at that time).

Another related limitation was the potential for self-selection bias of individuals who chose to participate. People who were adapting or coping well with the news of their loved ones’ prognosis may have been more likely to participate in a research investigation than those who were functioning less effectively. Additionally, collaborators (e.g., Hospice bereavement coordinators) served as gatekeepers to who was invited to participate. They likely selected individuals whom they believed wouldn’t be negatively impacted by participation, which doesn’t necessarily represent the full spectrum of anticipatory grieverers. Participants were also not asked to report how many significant losses they had endured in their life. This presents a unique extraneous variable that was not accounted for in the present study. Additionally, participants were not asked to describe their loved ones’ affliction (e.g., cancer, Alzheimer’s, etc.). The intent with this omission was to remain as noninvasive as possible, yet this potentially limited the generalizability of these findings. Participants may have experienced various levels of grief reactions to different conditions. Research has suggested that the extended emotional stresses experienced by adults who witness a loved one suffering from a

terminal condition can lead to difficult patterns of grieving (Hogan et al., 2001), and different illnesses may produce varied visible suffering.

The research design of this investigation was purely quantitative in nature and assessed statistical relationships between several variables. Although this was an intentional design, lack of qualitative data limits a more comprehensive understanding of potentially extraneous variables or circumstances. For example, there may be variability among participants in unknown domains that were not accounted for in the demographic questionnaire. No demographic variables obtained (other than intimacy to a small degree) were statistically significant in the data analyses. Interestingly, two demographic items were not completed in a large proportion of cases. Age was only reported in 72.5% of the final sample, and projected life expectancy was reported in a mere 48.3% of responses. These missing data posed an initial concern; however, t-test analyses determined that these factors did not produce significant differences (reported vs. not-reported) on either dependent variable of interest. Implications connected to life expectancy data were discussed in the future research section. Lastly, social support was operationalized in this investigation through use of two subscales on the Proactive Coping Inventory. Proactive coping itself was also defined through use of this instrument. The relationships between these variables could have differed given a separate social support scale, and correlations in this investigation may be inflated.

### **Conclusion**

Prominent theories on the grieving process tend to initiate attention *after* a death or other loss has occurred (Freud, 1917; Stroebe & Schut, 1999; Worden, 2002). Research has also given primary attention to the negative impacts or resulting pathologies

of these stressful circumstances (e.g., psychological, medical, or social impairments), with far less focus on potentially positive outcomes (Neimeyer, Hogan, & Laurie, 2008; Siegel & Schrimshaw, 2000). The current investigation expanded upon existing grief models by focusing on anticipatory experiences from a strength-based (growth) perspective.

This investigation expanded upon a unique strength-based theory of grief by validating its merit in a group of anticipatory grievers. Several facets of human behavior were uncovered as containing importance. Both posttraumatic and personal growth were detected and determined to be both statistically and practically relevant for practicing health professionals to consider when working with this population. Anticipatory grievers who employ proactive coping techniques when facing the anticipated death of a loved one may exhibit more evidence of growth than those who remain inactive in their coping processes. These proactive methods include reframing the approaching loss as a challenge to overcome, as opposed to a psychological threat. Specifically, proactive coping involves accessing or accepting social support resources, which was shown to create higher experiences of growth during anticipatory grief in this study.

The results and implications of the current study are intended to assist counselors, other helping professionals, and counselor educators in providing strength-based support to individuals anticipating the loss of a loved one. Future research direction has been provided, specifically in reference to exploring the barriers to defining the origination of the anticipatory grief experience. Several limitations impact the generalizability of these implications for practice and should be considered accordingly. Research in the field of anticipatory grief is rich for potential implications designed to improve successful

bereavement outcomes in this population. The process of uncovering these facilitative factors has far from reached its end.

## References

- Aho, A. L., Tarkka, M. T., Åstedt-Kurki, P., & Kaunonen, M. (2006). Fathers' grief after the death of a child. *Issues in Mental Health Nursing*, 27(6), 647-663.
- American Counseling Association (2014). *ACA code of ethics*. Alexandria, VA: Author.
- American Psychiatric Association (Ed.). (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV*. American Psychiatric Publications.
- American Psychiatric Association (Ed.). (2013). *Diagnostic and statistical manual of mental disorders: DSM-V*. American Psychiatric Publications.
- Anderson, W. P., & Lopez-Baez, S. (2008). Measuring growth with the posttraumatic growth inventory. *Measurement and Evaluation in Counseling and Development*, 40(4), 215-227.
- Archer, J. (2008). Theories of grief: Past, present, and future perspectives. In Stroebe, M. S., Hansson, R. O., Schut, H., & Stroebe, W. (Eds.). (2008). *Handbook of bereavement research and practice: Advances in theory and intervention* (pp. 67-86). Washington, DC: American Psychological Association.
- Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin*, 121(3), 417.
- Attig, T. (2004). Disenfranchised grief revisited: Discounting hope and love. *Omega Journal of Death & Dying*, 49(3), 197-215
- Attig, T. (1991). The importance of conceiving of grief as an active process. *Death Studies*, 15, 385-393.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman, New York.

- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Benight, C. C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behavior Research & Therapy*, 42, 1129-1148.
- Benkel, I., Wijk, H., & Molander, U. (2009). Managing grief and relationship roles influence which forms of social support the bereavement needs. *American Journal of Hospice & Palliative Medicine*, 26(4), 241-245.
- Block, S. D. (2000). Assessing and managing depression in the terminally ill patient. ACP-ASIM end-of-life care consensus panel. *Annals of Internal Medicine*, 132, 209-218.
- Bode, C., de Ridder, R., Kuijer, R. G., & Bensing, J. M. (2007). Effects of an intervention promoting proactive coping competencies in middle and late adulthood. *The Gerontologist*, 47(1), 42-51.
- Boelen, P. A. (2011). Personal goals and prolonged grief disorder symptoms. *Clinical Psychology & Psychotherapy*, 18, 439-444.
- Bonanno, G. A. (2001). New directions in bereavement research and theory. *American Behavioral Scientist*, 44(5), 718–725.
- Bonnano, G. A., Westphal, M., & Mancini, A. D. (2011). Resilience to loss and potential trauma. *Annual Review of Clinical Psychology*, 7, 511-35.
- Bosscher, R. J., & Smit, J. H. (1998). Confirmatory factor analysis of the general self-efficacy scale. *Behaviour Research and Therapy*, 36(3), 339-343.

- Bowlby, J. (1969). *Attachment*. New York: Basic Books.
- Bowlby, J., & Parkes, C. M. (1970). Separation and loss within the family. In E. J. Anthony & C. Koupernik (Eds.), *The child in his family: International yearbook of child psychiatry and allied professions* (pp. 197-216), New York: Wiley.
- Bretherton, I. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology*, 28, 759-775.
- Büchi, S., Mörgeli, H., Schnyder, U., Jenewein, J., Hepp, U., Jina, E., ... & Sensky, T. (2007). Grief and post-traumatic growth in parents 2–6 years after the death of their extremely premature baby. *Psychotherapy & Psychosomatics*, 76(2), 106-114.
- Buchner, A., Erdfelder, E., Faul, F., & Lang, A. (2009). G\*Power (Version 3.1.2) [Computer program]. <http://www.psych.uni-duesseldorf.de/aap/projects/gpower/>
- Buglass, E. (2010). Grief and bereavement theories. *Nursing Standard*, 24(41), 44-47.
- Butcher, J. N., Hooley, J. M., & Mineka, S. (2014). *Abnormal psychology* (16<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson.
- Calhoun, L. G., Cann, A., Tedeschi, R. G., & McMillan, J. (2000). A correlational test of the relationship between posttraumatic growth, religion, and cognitive processing. *Journal of Traumatic Stress*, 13(3), 521-527.
- Chapman, K. J., & Pepler, C. (1998). Coping, hope, and anticipatory grief in family members in palliative home care. *Cancer Nursing*, 21(4), 226-234.
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4(1), 62-83.

- Cieslak, R., Benight, C., Schmidt, N., Luszczynska, A., Curtin, E., Clark, R., & Kissinger, P. (2008). Predicting post-traumatic stress growth among hurricane Katrina survivors living with HIV: The role of self-efficacy, social support, and PTSD symptoms. *Anxiety, Stress, & Coping*, 22(4), 449-463.
- Clewell, T. (2004). Mourning beyond melancholia: Freud's psychoanalysis of loss. *Journal of the American Psychoanalytic Association*, 52(1), 43-67.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155-159.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Erlbaum.
- Coombs, M. A. (2010). The mourning before: Can anticipatory grief theory inform family care in adult intensive care?. *International Journal of Palliative Nursing*, 16(12), 580-584.
- Copp, G. (1998). A review of current theories of death and dying. *Journal of advanced nursing*, 28(2), 382-390.
- Corr, C. A. (2007). Anticipatory grief and mourning. In Doka, K. (Ed.), *Living with grief: Before and after the death*. (pp. 5-21). Washington, DC: Hospice Foundation of America.
- Corr, C. A. (1992). A task-based approach to coping with dying. *Omega*, 24(2), 81-94.
- Council for Accreditation of Counseling and Related Educational Programs. (2001). *Accreditation standards and procedures manual*. Alexandria, VA: Author.



- Davis, C. G., Nolen-Hoeksema, S., & Larson, J. (1998). Making sense of loss and benefiting from the experience: Two construals of meaning. *Journal of Personality & Social Psychology*, 75(2), 561-574.
- Danhauer, S. C., Case, L. D., Tedeschi, R., Russell, G., Vishnevsky, T., Triplett, K., Ip, E. H., & Avis, N. E. (2013). Predictors of posttraumatic growth in women with breast cancer. *Psycho-Oncology*, 22, 2676-2683.
- Doka, K. (Ed.) (2007a). *Living with grief: Before and after the death*. Washington, DC: Hospice Foundation of America.
- Doka, K. (2007b). Challenging the paradigm: New understandings of grief. In Doka, K. (Ed.), *Living with grief: Before and after the death*. (pp. 87-103). Washington, DC: Hospice Foundation of America.
- Doka, K. J. (2003). Grief, acute. In R. Kastenbaum (Ed.), *Macmillan encyclopedia of death and dying* (pp. 350-352). New York: Free Press.
- Downe-Wamboldt, B., & Tamlyn, D. (1997). An international survey of death education trends in faculties of nursing and medicine. *Death Studies*, 21(2), 177-188
- Duke, S. (1998). An exploration of anticipatory grief: The lived experience of people during their spouses' terminal illness and in bereavement. *Journal of Advanced Nursing*, 28(4), 829-839.
- Fazio, R. J., & Fazio, L. M. (2005). Growth through loss: Promoting healing and growth in the face of trauma, crisis, and loss. *Journal of Loss and Trauma*, 10, 221-252.
- Ferszt, G. G., & Leveillee, M. (2006). How do you distinguish between grief and depression?. *Nursing*, 36(9), 60-61.

- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage.
- Folkman, S., Tedlie, J., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, 55, 745-74.
- Folkman, S., & Lazarus, R. S. (1985). If it changes, it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology*, 48, 150-170.
- Freud, S. (1917). *Mourning and melancholia*. Standard edition, 14(237-258).
- Freud, S. (1923). *The ego and the id*. London: Hogarth Press.
- Frankl, V. E. (1997). *Man's search for meaning*. Simon & Schuster.
- Frantz, T. T., Farrell, M. M., & Trolley, B. C. (2001). Positive outcomes of losing a loved one. In R. A. Neimeyer (Ed.) *Meaning reconstruction and the experience of loss* (pp.191-209). Washington, DC: American Psychological Association.
- Frazier, P. A., Tix, A. P., & Barron, K. (2004). Testing moderator or mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51(1), 115-134.
- Fulton, R. (2003). Anticipatory mourning: A critique of the concept. *Morality*, 8, 342-351.
- Fulton, R., & Fulton, J. (1971). A psychosocial aspect of terminal care: Anticipatory grief. *OMEGA--Journal of Death and Dying*, 2(2), 91-100.
- Fulton, R., & Gottesman, D. J. (1980). Anticipatory grief: A psychosocial concept reconsidered. *British Journal of Psychiatry*, 137, 45-54.

- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8<sup>th</sup> ed.). New York, NY: Longman.
- Gamino, A., Sewell, K. W., & Easterling, L. (1998). Scott and White grief study: An empirical test of predictors of intensified mourning. *Death Studies*, 22, 333-355.
- Gamino, A., Sewell, K. W., & Easterling, L. (2000). Scott and White grief study—Phase 2: Toward an adaptive model of grief. *Death Studies*, 24(7), 633-660.
- Gan, Y., Yang, M., Zhou, Y., & Zhang, Y. (2007). The two-factor structure of future-oriented coping and its mediating role in student engagement. *Personality & Individual Differences*, 43, 851-863.
- Gan, Y., Hu, Y., & Zhang, Y. (2010). Proactive and preventive coping in adjustment to college. *The Psychological Record*, 60(4), 643-657.
- Gelso, C. J. (1979). Research in counseling: Methodological and professional issues. *The Counseling Psychologist*, 8, 7-35.
- Glick, I., Weiss, R. S., & Parkes, C. M. (1974). *The first year of bereavement*. New York: Wiley.
- Gordon, T. A. (2013). Good grief: Exploring the dimensionality of grief experiences and social work support. *Journal of Social Work in End-of-Life & Palliative Care*, 9(1), 27-42.
- Gorer, G. D. (1965). *Death, grief, and mourning*. New York: Doubleday.
- Granek, L. (2010). Grief as pathology: The evolution of grief theory in psychology from Freud to the present. *History of Psychology*, 13(1), 46.

- Greenglass, E. (2002). Proactive Coping. In E. Frydenberg (Ed.), *Beyond coping: Meeting goals, vision, and challenges*. (pp. 37-62). London: Oxford University Press.
- Greenglass, E. (2006). Vitality and vigor: Implications for healthy functioning. In P. Buchwald (Ed.). *Stress and anxiety: Application to health, community, workplace, and education* (pp. 37-62). London, UK: Oxford.
- Greenglass, E., R., & Fiksenbaum, L. (2009). Proactive coping, positive affect, and well-being: Testing for mediation using path analysis. *European Psychologist*, 14(1), 29-39.
- Greenglass, E., Fiksenbaum, L., & Eaton, J. (2006). The relationship between coping, social support, functional disability, and depression in the elderly. *Anxiety, Stress, & Coping*, 19(1), 15-31.
- Greenglass, E., Schwarzer, R., & Taubert, S. (1999). The proactive coping inventory (PCI): A multidimensional research instrument. [Online publication]. Available at: <http://www.psych.yorku.ca/greenglass/>
- GriefNet. (2013). *Find a support group*. Retrieved September 14, 2013, from <http://www.griefnet.org/support/sg2.html>.
- Grubaugh, A. L., & Resick, P. A. (2010). Posttraumatic growth in treatment-seeking female assault victims. *Psychiatry Quarterly*, 78(2), 145-155.
- Hagman, G. (2001). Beyond decathexis: Towards a new psychoanalytic understanding and treatment of mourning. In R. A. Neimeyer (Ed.) *Meaning reconstruction and the experience of loss* (pp. 13-31). Washington, DC: American Psychological Association.

- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76, 408-420.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Hefferon, K., Greal, M., & Mutrie, N. (2009). Post-traumatic growth and life threatening physical illness: A systematic review of the qualitative literature. *British Journal of Health Psychology*, 14(2), 343-378.
- Heppner, P. P., Wampold, B. E. & Kivlighan, D. M. (2008). *Research design in counseling* (3<sup>rd</sup> ed.). Belmont, CA: Brooks/Cole.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524.
- Hogan, N. S., Greenfield, D. B., & Schmidt, L. A. (2001). Development and validation of the Hogan grief reaction checklist. *Death Studies*, 25(1), 1-32.
- Hogan, N., Morse, J. M., & Tasón, M. C. (1996). Toward an experiential theory of bereavement. *OMEGA--Journal of Death and Dying*, 33(1), 43-65.
- Hogan, N.S., & Schmidt, L. A. (2002). Testing the grief to personal growth model using structural equation modeling. *Death Studies*, 26(8), 615-634.
- Horowitz, M. J., Wilner, N., Marmar, C., & Krupnick, J. (1980). Pathological grief and the activation of latent self-images. *American Journal of Psychiatry*, 137, 1157-1162.
- Hospice Foundation of America. (2013). *Finding a support group*. Retrieved September 14, 2013, from <http://www.hospicefoundation.org/supportgroup>.

- Hottensen, D. (2010). Anticipatory grief in patients with cancer. *Clinical Journal of Oncology Nursing, 14*(1), 106-107.
- Hyrkäs, K., Kaunonen, M., & Paunonen, M. (1997). Recovering from the death of a spouse. *Journal of Advanced Nursing, 25*(4), 775-779.
- Iancobucci, D., Saldanha, N., & Xiaoyan, D. (2007). A meditation on mediation: evidence that structural equation models perform better than regressions. *Journal of Consumer Psychology, 17*(2), 140-154.
- Jacobsen, J. C., Zhang, B., Block, S. D., Maciejewski, P. K., & Prigerson, H. G. (2010). Distinguishing symptoms of grief and depression in a cohort of advanced cancer patients. *Death Studies, 34*, 257-273.
- Jerusalem, M. (1993). Personal resources, environmental constraints, and adaptational processes: The predictive power of a theoretical stress model. *Personality and Individual Differences, 14*, 15—24.
- Joseph, S., & Linley, P. A. (2006). Growth following adversity: Theoretical perspectives and implications for clinical practice. *Clinical Psychology Review, 26*(8), 1041-1053.
- Kaplow, J. B., Layne, C. M., Saltzman, W. R., Cozza, S. J., & Pynoos, R. S. (2013). Using multidimensional grief theory to explore the effects of deployment, reintegration, and death on military youth and families. *Clinical Child and Family Psychology Review, 1*-19
- Kaunonen, M., Tarkka, M. T., Paunonen, M., & Laippala, P. (2001). Grief and social support after the death of a spouse. *Journal of Advanced Nursing, 30*(6), 1304-1311.

- Keesee, N. J., Currier, J. M., & Neimeyer, R. A. (2008). Predictors of grief following the death of one's child: The contribution of finding meaning. *Journal of Clinical Psychology, 64*(10), 1145-1163.
- Kessler, B. G. (1987). Bereavement and personal growth. *Journal of Humanistic Psychology, 27*(2), 228-247.
- Kirby, E. G., Kirby, S. L., & Lewis, M. A. (2002). A study of effectiveness of training proactive thinking. *Journal of Applied Social Psychology, 32*(7), 1538-1549.
- Klass, D., Silverman, P. R., & Nickman, S. L. (Eds.) (1996). *Continuing bonds: New understandings of grief*. Philadelphia, PA: Taylor & Francis.
- Kübler-Ross, E. (1969). *On death and dying*. New York: Touchstone.
- Kübler-Ross, E., & Kessler, D. (2005). *On grief and grieving*. New York, NY: Scribner.
- Laakso, H., & Paunonen-Ilmonen, M. (2002). Mothers' experience of social support following the death of a child. *Journal of Clinical Nursing, 11*(2), 176-185.
- Lee, H. S., (2007). Canonical correlation analysis using small number of samples. *Communication in Statistics, 36*, 973-985.
- Leibenluft, E., Green, S. A., & Giese, A. A. (1988). Mourning and milieu: Staff reaction to the death of an inpatient. *Psychiatry Hospital, 19*169-19173.
- Lev-Wiesel, R., & Amir, M. (2003). Posttraumatic growth among holocaust child survivors. *Journal of Loss & Trauma, 8*, 229-237.
- Lieberman, M. (1996). *Doors close, doors open: Widows, grieving, and growing*. New York: G.P. Putnam.
- Lindemann, E. (1944). Symptomatology and management of acute grief. *American Journal of Psychiatry, 101*, 141-148.

- Linley, P. A., Andrews, L., & Joseph, S. (2007). Confirmatory factor analysis of the posttraumatic growth inventory. *Journal of Loss and Trauma, 12*(4), 321-332.
- Linley, P. A., & Joseph, S. (2004). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress, 17*(1), 11-21.
- Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: Multicultural validation studies. *The Journal of Psychology, 139*(5), 439-457.
- Luszczynska, A., Sarkar, Y., & Knoll, N. (2006). Received social support, self-efficacy, and finding benefits in disease as predictors of physical functioning and adherence to antiretroviral therapy. *Patient Education and Counseling, 66*, 37-42.
- Maciejewski, P. K., Zhang, B., Block, S. D., & Prigerson, H. G. (2007). An empirical examination of the stage theory of grief. *JAMA: The Journal of the American Medical Association, 297*(7), 716-723.
- MacKinnon, D. P., & Fairchild, A. J. (2009). Current direction in mediation analysis. *Current Directions in Psychological Science, 18*(1), 16-20.
- National Hospice and Palliative Care Organization. (2012). NHPCO facts and figures: Hospice care in America. Retrieved on March 4, 2015 from:  
[http://www.nhpc.org/sites/defaultfiles/public/Statistics\\_Research/2012\\_Facts\\_Figures.pdf](http://www.nhpc.org/sites/defaultfiles/public/Statistics_Research/2012_Facts_Figures.pdf)
- Neimeyer, R. A. (Ed). (2001a). *Meaning reconstruction and the experience of loss*. Washington, DC: American Psychological Association.
- Neimeyer, R. A. (2001b). Meaning reconstruction and loss. In R. A. Neimeyer (Ed.) *Meaning reconstruction and the experience of loss* (pp. 1-9). Washington, DC: American Psychological Association.



- Neimeyer, R. A. (2004). Fostering posttraumatic growth: A narrative elaboration. *Psychological Inquiry*, 15(1), 53-59.
- Neimeyer, R. A., Hogan, N. S., & Laurie, A. (2008). The measurement of grief: Psychometric considerations in the assessment of reactions to bereavement. In Stroebe, M. S., Hansson, R. O., Schut, H., & Stroebe, W. (Eds.). (2008). *Handbook of bereavement research and practice: Advances in theory and intervention* (pp. 133-161). Washington, DC: American Psychological Association.
- Noppe, I. C. (2000). Beyond broken bonds and broken hearts: The bonding of theories of attachment and grief. *Developmental Review*, 20(4), 514-538.
- Norton, S. A., Tilden, V. P., Tolle, S. W., Nelson, C. A., & Eggman, S. T. (2003). Life support withdrawal: Communication and conflict. *Journal of Critical Care*, 12(6), 548-555.
- Osterweis, M., Solomon, M., & Green, M. (1984). *Bereavement, reactions, consequences, and care*. Washington, DC: National Academy Press.
- Ouwehand, C., de Ridder, D. T. D., & Bensing, J. M. (2008). Individual differences in the use of proactive coping strategies by middle-aged and older adults. *Personality & Individual Differences*, 45, 28-33.
- Park, C. L. (1998). Stress-related growth and thriving through coping: The roles of personality and cognitive processes. *Journal of Social Issues*, 54(2), 267-277.
- Pearlman, L. A., & Saakvitne, K. W. (1995). Treating therapists with vicarious traumatization and secondary stress disorders. In C. R. Figley (Ed.), *Compassion*

*fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized.* London, England: Brunner-Routledge.

Petrocelli, J. V. (2003). Hierarchical multiple regression in counseling research: Common problems and possible remedies. *Measurement & Evaluation in Counseling & Development, 36*, 9-22.

Polatinsky, S., & Esprey, Y. (2000). An assessment of gender differences in the perception of benefit resulting from the loss of a child. *Journal of Traumatic Stress, 13*(4), 709-718.

Powell, S., Rosner, R., Butollo, W., Tedeschi, R. G., & Calhoun, L. G. (2002).

Posttraumatic growth after war: A study with former refugees and displaced people in Sarajevo. *Journal of Clinical Psychology, 59*(1), 71-83.

Prati, G., & Pietrantonio, L. (2009). Optimism, social support, and coping strategies as factors contributing to post-traumatic growth: A meta-analysis. *Journal of Loss & Trauma: International Perspectives on Stress & Coping, 14*(5), 364-388.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*(4), 717-731.

Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models:

Quantitative strategies for communicating indirect effects. *Psychological Methods, 16*(2), 93-115.

Prigerson, H. G., & Maciejewski, P. K. (2006). A call for sound empirical testing and evaluation of criteria for complicated grief proposed for DSM-V. *OMEGA Journal of Death and Dying, 52*(1), 9-19.

- Prigerson, H. G., & Jacobs, S. C. (2001). Caring for bereaved patients. *JAMA: The Journal of the American Medical Association*, 286(11), 1369-1376.
- Prigerson, H. G., Horowitz, M. J., Jacobs, S. C., Parkes, C. M., Aslan, M., Goodkin, K., ... & Maciejewski, P. K. (2009). Prolonged grief disorder: Psychometric validation of criteria proposed for DSM-V and ICD-11. *PLoS Medicine*, 6(8), e1000121.
- Rando, T. A. (2000a). (Ed.). *Clinical dimensions of anticipatory mourning*. (pp. 1-16). Champaign, IL: Research Press.
- Rando, T. A. (2000b). Anticipatory mourning: A review and critique of the literature. In Rando, T. A. (Ed.), *Clinical dimensions of anticipatory mourning*. (pp. 17-50). Champaign, IL: Research Press.
- Richardson, V. E. (2006). A dual process model of grief counseling. *Journal of Gerontological Social Work*, 48(3-4), 311-329.
- Riley, L. P., LaMontagne, L. L., Hepworth, J. T., & Murphy, B. A. (2007). Parental grief responses and personal growth following the death of a child. *Death Studies*, 31(4), 277-299.
- Roesch, S., Aldridge, A., Huff, L. P., Langner, K., Villodas, F., & Bradshaw, K. (2009). On the dimensionality of the Proactive Coping Inventory: 7, 4, 3 factors? *Anxiety, Stress, & Coping*, 22(3), 327-39.
- Rosenblatt, P. C. (2007). Grief: What we have learned from cross-cultural studies. In Doka, K. (Ed.), *Living with grief: Before and after the death*. (pp. 123-137). Washington, DC: Hospice Foundation of America.

- Salmon, J. R., Deming, A. M., Kwak, J., Acquiaviva, K. D., Brandt, K., & Egan, K. (2003). *Caregiving at life's end: The national needs assessment and implications for Hospice practice*. Clearwater, FL: Hospice Institute of the Florida Suncoast.
- Sanders, C. M. (1999). Grief: The mourning after. Dealing with adult bereavement. *Journal of Psychiatric & Mental Health Nursing*, 6(5), 406-407.
- Sandler, I. N., Wolchik, S. A., & Ayers, T. S. (2008). Resilience rather than recovery: A contextual framework on adaption following bereavement. *Death Studies*, 32, 59-73.
- Saunders, C. (1978). Hospice care. *The American Journal of Medicine*, 65(5), 726-728.
- Schoenberg, B., Carr, A., Kutscher, A. H., Peretz, D., & Goldberg, I. (Eds.). (1974). *Anticipatory grief*. New York: Columbia University Press.
- Schwarzer, R. (Ed.) (1992). *Self-efficacy: Thought control of action*. Washington, DC: Hemisphere.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-NELSON.
- Schwarzer, R., & Knoll, N. (2003). Proactive coping: Mastering demands and searching for meaning. In Lopez, S.J. & Snyder, C. R., *Handbook of Positive Psychological Assessment* (pp. 393-409). Washington, DC: American Psychological Association.
- Schwarzer, R., & Luszczynska, A. (2008). Reactive, anticipatory, preventive, and proactive coping: A theoretical distinction. *Prevention Researcher*, 15(4), 22-24.

- Schwarzer, R. & Taubert, S. (2002). Tenacious goal pursuits and striving toward personal growth: Proactive coping. In E. Fydenberg (Ed.). *Beyond coping: Meeting goals, visions and challenges* (pp. 19-35). London: Oxford University Press.
- Schwarzer, R., Richert, J., Kreausukon, P., Remme, L., Wiedemann, A. U., & Reuter, T. (2010). Translating intentions into nutrition behaviors via planning requires self-efficacy: evidence from Thailand and Germany. *International Journal of Psychology*, 45(4), 260-268.
- Selya, A. S., Rose, J. S., Dierker, L. C., Hedeker, D., & Mermelstein, R. J. (2012). A practical guide to calculating Cohen's  $f^2$ , a measure of local effect size, from PROC MIXED. *Frontiers in Psychology*, 3, 111.
- Shear, K. (2011). Bereavement and the DSM-5. *Omega Journal of Death and Dying*, 64(2), 101-118.
- Shear, K., Frank, E., Houck, P. R., & Reynolds, C. F. (2005). Treatment of complicated grief: A randomized control trial. *Journal of the American Medical Association*, 293(21), 2601-2608.
- Sheikh, A. I., & Marotta, S. A. (2005). A cross-validation study of the posttraumatic growth inventory. *Measurement and Evaluation in Counseling & Development*, 38(2), 66-77.
- Shepherd, D. A. (2003). Learning from business failure: Propositions of grief recovery for the self-employed. *Academy of Management Review*, 28(2), 318-328.
- Sherry, A., & Henson, R. K. (2005). Conducting and interpreting canonical correlation analysis in personality research: A user-friendly primer. *Journal of Personality Assessment*, 84(1), 37-48.

- Siegel, K., Karus, D., & Raveis, V. H. (1996). Adjustment of children facing the death of a parent due to cancer. *Journal of the American Academy of Child & Adolescent Psychiatry*, 35(4), 442-450.
- Siegel, K., & Schrimshaw, E. W. (2000). Perceiving benefits in adversity: Stress-related growth in women living with HIV/AIDS. *Social Science & Medicine*, 51(10), 1543-1554.
- Simon, J. L. (2008). Anticipatory grief: Recognition and coping. *Journal of Palliative Medicine*, 11(9), 1280-1281.
- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290-312). San Francisco, CA: Jossey-Bass.
- Sofka, C. J. (2007). Supporting families during the process of death. In Doka, K. (Ed.), *Living with grief: Before and after the death*. (pp. 45-64). Washington, DC: Hospice Foundation of America.
- Sohl, S. J., & Moyer, A. (2009). Refining the conceptualization of a future-oriented self-regulatory behavior: Proactive coping. *Personality & Individual Differences*, 47(2), 139-144.
- Stroebe, M. S., Hansson, R. O., Schut, H., & Stroebe, W. (Eds.). (2008). *Handbook of bereavement research and practice: Advances in theory and intervention*. Washington, DC: American Psychological Association.
- Stroebe, M., & Schut, H. (1999). The dual process model of coping with bereavement: Rationale and description. *Death Studies*, 23, 197-224.

- Stroebe, M., & Schut, H. (2010). The dual process model of coping with bereavement: A decade on. *OMEGA: Journal of Death and Dying*, 61(4), 273-289.
- Sweeting, H. N., & Gilhooly, M. L. M. (1990). Anticipatory grief: A review. *Social Science Medicine*, 30(10), 1073-1080.
- Tabachnik, B. G. & Fidell, L. S. (2006). *Using multivariate statistics* (5<sup>th</sup> ed.).
- Taku, K., Cann, A., Calhoun, L. G., & Tedeschi, R. G. (2008). The factor structure of the Posttraumatic Growth Inventory: A comparison of five models using confirmatory factor analysis. *Journal of Traumatic Stress*, 21(2), 158-164.
- Tedeschi, R. G., & Calhoun, L. G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455-471.
- Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry: An International Journal for the Advancement of Psychological Theory*, 15(1), 1-18.
- Tedschi, R. G., & Calhoun, L. G. (2007). Grief as a transformative struggle. In K. Doka (Ed.), *Living with grief: Before and after the death*. (pp. 107-123). Washington, DC: Hospice Foundation of America.
- Tedeschi, R. G., & Calhoun, L. G. (2009). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1-18.
- Tedeschi, R. G., Park, C. L., & Calhoun, L. G. (1998a). *Posttraumatic growth: Positive changes in the aftermath of crisis*. Mahwah, N.J: Lawrence Erlbaum Associates.
- Tedeschi, R. G., Park, C. L., & Calhoun, L. G. (1998b). Posttraumatic growth: Conceptual issues. In R. G. Tedeschi, C. L. Park & L. G. Calhoun (Eds.),

*Posttraumatic growth: Positive changes in the aftermath of crisis.* (pp.1-22).

Mahwah, N.J: Lawrence Erlbaum Associates, Publishers.

Thompson, B. (1984). *Canonical correlation analysis: Uses and interpretation.* Beverly Hills, CA: Sage.

Uskul, A. K., & Greenglass, E. (2005). Psychological well-being in a Turkish-Canadian sample. *Anxiety, Stress, & Coping, 18*, 269-278.

Vargas, L. A., Loya, F., & Hodde-Vargas, J. (1989). Exploring the multidimensional aspects of grief reactions. *American Journal of Psychiatry, 146*(11), 1484-1488.

Vernon, L. (2012). Relationships among proactive coping, posttrauma gratitude, and psychopathology in a traumatized college sample. *Journal of Aggression, Maltreatment, & Trauma, 21*, 114-130.

Vernon, L., Dillon, J., & Steiner, A. (2009). Proactive coping, gratitude, and posttraumatic stress disorder in college women. *Anxiety, Stress, & Coping, 22*(1), 117-127.

Walijarvi, C. M. (2011). *Grief and/or growth among bereaved adults.* (University of Houston). *ProQuest Dissertations and Theses*, 1-168.

Walters, D. A. (2008). Grief and loss: towards an existential phenomenology of child spirituality. *International Journal of Children's Spirituality, 13*(3), 277-286.

Walter, A., & Lopez-Baez, S. I. (2008). Measuring growth with the posttraumatic growth inventory. *Measurement and Evaluation in Counseling and Development, 40*(4), 215-228.

Worden, J. W. (1996). *Children and grief: When a parent dies.* New York: Guilford.

Worden, J. W. (2002). *Grief counseling and grief therapy* (3<sup>rd</sup> ed.). New York: Springer.



- Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. *Journal of Consulting & Clinical Psychology, 57*(3), 349.
- Wright, P. M., & Hogan, N. S. (2008). Grief theories and models: Applications to hospice nursing practice. *Journal of Hospice & Palliative Nursing, 10*(6), 350-356.
- Wu, C. H., Chen, K. H., & Yao, G. (2008). Validation of the proactive coping scale in a sample of Chinese population. *Journal of Psychology in Chinese Societies, 9*(1), 103-120.
- Yalom, I. D. (2008). Staring at the sun: Overcoming the terror of death. *The Humanistic Psychologist, 36*(3-4), 283-297.
- Yalom, I. D., & Lieberman, M. (1991). Bereavement and heightened existential awareness. *Psychiatry, 54*, 334-345.
- Zeitlin, S. V. (2001). Palliative Care. *Primary Care; Clinics in Office Practice, 28*(2).
- Zhao, X., Lynch, J. G., Jr., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research, 27*(2), 197-206.
- Znoj, H. (2006). Bereavement and posttraumatic growth. *The handbook of posttraumatic growth: Research and practice* (pp. 176-196). Mahwah, NJ: Lawrence Erlbaum.

**APPENDIX A****IRB APPROVAL LETTERS**



*Institutional Review Board*

DATE: November 27, 2013

TO: Kylie Rogalla  
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [488193-3] EXAMINING RELATIONSHIPS BETWEEN THE DISPOSITION OF PROACTIVE COPING AND THE EXPERIENCE OF PERSONAL AND POSTTRAMATIC GROWTH IN INDIVIDUALS FACING ANTICIPATORY GRIEF DUE TO EXPECTED DEATH OF A LOVED ONE

SUBMISSION TYPE: Amendment/Modification

ACTION: **APPROVED - CORRECTED LETTER**

APPROVAL DATE: November 27, 2013  
EXPIRATION DATE: November 27, 2014  
REVIEW TYPE: Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of November 27, 2014.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or [Sherry.May@unco.edu](mailto:Sherry.May@unco.edu). Please include your project title and reference number in all correspondence with this committee.

Thanks for a well written study.  
Best Wishes,  
Maria



*Institutional Review Board*

DATE: December 1, 2014

TO: Kylie Rogalla  
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [488193-7] EXAMINING RELATIONSHIPS BETWEEN THE DISPOSITION OF PROACTIVE COPING AND THE EXPERIENCE OF PERSONAL AND POSTTRAMATIC GROWTH IN INDIVIDUALS FACING ANTICIPATORY GRIEF DUE TO EXPECTED DEATH OF A LOVED ONE

SUBMISSION TYPE: Continuing Review/Progress Report

ACTION: **APPROVED**

APPROVAL DATE: November 27, 2014  
EXPIRATION DATE: November 27, 2015  
REVIEW TYPE: Expedited Review

Thank you for your submission of Continuing Review/Progress Report materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this

committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of November 27, 2015.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or [Sherry.May@unco.edu](mailto:Sherry.May@unco.edu). Please include your project title and reference number in all correspondence with this committee.

**Hello Kylie,**

**I have approved your continuation of your study with the minor change in the Consent. In addition, please update the last sentence in the final paragraph with the following: 'please contact' Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall,**

**970-351-1910. You do not need to submit the minor revision to your consent form for further review.**

**Thank you for your attention and good luck with this important research. Sincerely,**

Nancy White, PhD, IRB Co-Chair

**APPENDIX B**

**AGENCY RECRUITMENT LETTER**



Professional Greetings,

My name is Kylie Rogalla, and I am an assistant professor in the Counseling and Human Services Department at Indiana University South Bend. I am also working to complete my dissertation requirements for my doctoral degree in Counselor Education and Supervision from the University of Northern Colorado. My dissertation study will explore relationships between proactive coping disposition and personal and posttraumatic growth through a strength-based perspective assessing anticipatory grief experiences (individuals expecting the loss of a loved one).

I am writing to ask for the opportunity to speak with you, a bereavement coordinator, and/or director regarding the possibility of offering adults who are family members or friends of a person who is terminally ill an opportunity to complete a confidential survey. This survey is available online, and I am willing to mail hard copies as well. You will find a participant flyer attached to this letter.

I recognize that the priority of your program is in service delivery, and my intention with this research is to benefit clients who are experiencing anticipatory grief, and programs, such as your organization, that provide services to these individuals.

Participating agencies will receive a free copy of the empirical research article stemming from the results of the study, along with a comprehensive executive summary of the implications of these results for furthering the greatness of grief support programs in the future. Participants who complete the instrument (i.e. anticipatory grievers) will be given the option to enter into a drawing for one of three \$50.00 gift cards.

If you are interested in hearing more about my study and how these implications can better serve bereaving individuals, please contact me directly by phone or email. I sincerely look forward to hearing from you! Thank you for your time.

Kylie B. Rogalla, M.S., LPC, NCC  
Counselor Education and Supervision, Ph.D. program  
University of Northern Colorado  
[roga6062@bears.unco.edu](mailto:roga6062@bears.unco.edu)  
(507) 993-6766



**APPENDIX C**

**PARTICIPANT FLYER**

## **Preparing for the loss of a loved one can be a transformational experience...**

Would you be willing to help the counseling profession better understand what you're going through?



If so, I humbly invite you to participate in a brief strength-based survey about your thoughts, feelings, and outlook on life as you face this anticipated loss. This survey will only take 15-20 minutes of your valuable time, and your responses will be kept anonymous.

Requirements to Participate:

~ 18+ years of age

~ A family member or friend of a person with a terminal condition (e.g., end-stage cancer, advanced Alzheimer's, etc.)

All participants will be given the option to enter into a drawing for one of three \$50.00 gift cards for a store of your choice (e.g. Target).



**Your experiences are important.**

To participate, please tear a tab below. You may type in the URL to directly access the survey online. Or, please email or call me if you would like a hard copy sent to you (prepaid return envelope included).

Kylie B. Rogalla, M.S., LPC, NCC  
 Doctoral Candidate—Counselor Education & Supervision  
 University of Northern Colorado  
 (507) 993-6766  
[roga6062@bears.unco.edu](mailto:roga6062@bears.unco.edu)

Anticipatory Grief Survey (link): <a href="https://unco.col.qualtrics.com/SE/?SID=SV_3xjcbZuOUyVItQF">https://unco.col.qualtrics.com/SE/?SID=SV_3xjcbZuOUyVItQF</a> Researcher contact information: Kylie Rogalla; (507) 993-6766; <a href="mailto:Roga6062@bears.unco.edu">Roga6062@bears.unco.edu</a>
Anticipatory Grief Survey (link): <a href="https://unco.col.qualtrics.com/SE/?SID=SV_3xjcbZuOUyVItQF">https://unco.col.qualtrics.com/SE/?SID=SV_3xjcbZuOUyVItQF</a> Researcher contact information: Kylie Rogalla; (507) 993-6766; <a href="mailto:Roga6062@bears.unco.edu">Roga6062@bears.unco.edu</a>
Anticipatory Grief Survey (link): <a href="https://unco.col.qualtrics.com/SE/?SID=SV_3xjcbZuOUyVItQF">https://unco.col.qualtrics.com/SE/?SID=SV_3xjcbZuOUyVItQF</a> Researcher contact information: Kylie Rogalla; (507) 993-6766; <a href="mailto:Roga6062@bears.unco.edu">Roga6062@bears.unco.edu</a>
Anticipatory Grief Survey (link): <a href="https://unco.col.qualtrics.com/SE/?SID=SV_3xjcbZuOUyVItQF">https://unco.col.qualtrics.com/SE/?SID=SV_3xjcbZuOUyVItQF</a> Researcher contact information: Kylie Rogalla; (507) 993-6766; <a href="mailto:Roga6062@bears.unco.edu">Roga6062@bears.unco.edu</a>

**APPENDIX D**

**INFORMED CONSENT (HARD COPY)**



CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH  
UNIVERSITY OF NORTHERN COLORADO

Project Title: *Examining Relationships between Coping Disposition and Growth*  
 Researcher: Kylie Rogalla, M.S., LPC, NCC; Counselor Education & Supervision PhD program  
 Phone: (507) 993-6766 E-mail: [roga6062@bears.unco.edu](mailto:roga6062@bears.unco.edu)  
 Advisor: Elysia Clemens, Ph.D. E-mail: [elysia.clemens@unco.edu](mailto:elysia.clemens@unco.edu)

Purpose and Description of Procedures: You have been invited to participate in this research study due to an anticipated loss of a loved one in your life. The purpose of this study is to assess your coping disposition and grief reactions as you prepare for this event. You will be asked to complete a brief demographic questionnaire and a three-part survey instrument. This survey is available online, and can be available in a paper-pencil option. Part one of the survey will assess your current coping style and use of social support (ex: *I try to pinpoint what I need to succeed; I ask others what they would do in my situation*). Part two will measure common reactions to your experience (ex: *I frequently cry*), including evidence of potential growth (ex: *I have more compassion for others*). Part three will further capture elements of possible growth as a result of your experience (ex: *I've discovered I'm stronger than I thought I was*). The entire instrument should take approximately 20 minutes to complete.

Risks and Benefits: There is minimal risk associated with participation in this research. Some discomfort may be experienced when answering questions related to your feelings associated with grief. A copy of the survey instruments (e.g., assessing common grief reactions) can be available for you upon request to further process the reactions that may occur. You will also receive a referral list of national organizations specializing in grief support. If you choose to take the survey online, your confidentiality will be safeguarded by the program software which was used to publish the survey. This software allows participants to submit responses anonymously. Survey data will be collected by the software program through an access-coded university account. Downloaded data will be kept secure through a password-protected university computer. The lead investigator in this study will be the only person accessing your individual responses. Paper and pencil data will be stored in a locked file cabinet, within a locked office, and located on a secure university campus.

Potential benefits of participation in this project include an increased understanding of your current coping style and social support activity. The items in the survey which measure grief reactions are taken from literature reflecting normal grief reactions by individuals who have gone through similar losses. This may bring a feeling of normalization or universality to your experiences. Finally, items assessing potential growth may elicit awareness of these positive traits within your experience that may have been out of your prior awareness.

There is an incentive for participating in the current investigation. All participants are given the option of entering into a drawing for one of three \$50.00 gift cards for a store of your choice (e.g. Kohl's, Target). In order to enter the drawing, an email address must be provided so that I may contact you to distribute this prize if you are the winner. If you are not selected, your email

address will be discarded and not be used in any further way. Also, a follow-up study to this investigation is intended to take place in the future. If you are willing to be contacted further down the road (e.g. one year from now) for follow-up research, an email address will also be requested. Additional incentives will apply at that time. Lastly, there is no cost to you as the participant for volunteering your time for this study.

Participation is voluntary. You may decide not to participate in this study, and if you begin participation, you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado; Greeley, CO 80639; (970)-351-1910.

---

Participant Signature (or initials)

---

Date

---

Researcher Signature

---

Date

**APPENDIX E**

**FULL INSTRUMENT**





**10. How do you receive support during this difficult time? (please check all that apply)**

Conversations with agency (e.g. Hospice) staff \_\_\_\_\_

Religious Support \_\_\_\_\_

Support Groups \_\_\_\_\_

Online Grief Support Groups/Forums \_\_\_\_\_

Conversations with family members and/or friends \_\_\_\_\_

Conversations with medical staff \_\_\_\_\_

I do not receive support \_\_\_\_\_

Other forms of support (please write)

---

---

### Survey Questions

#### Part I

The following statements concern reactions you may have to various situations. Indicate how true each of these statements is depending on how you feel each statement represents you.

Please use the following scale for answering this set of questions:

Not at all true = 1

Barely true = 2

Somewhat true = 3

Completely true = 4

Please circle one response to each question:

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. I am a "take charge" person   | 1 | 2 | 3 | 4 |
| 2. I try to let things work out on their own   | 1 | 2 | 3 | 4 |
| 3. After attaining a goal, I look for another, more challenging one                                | 1 | 2 | 3 | 4 |
| 4. I can always manage to solve difficult problems if I try hard enough.                           | 1 | 2 | 3 | 4 |
| 5. If something opposes me, I can find the means and ways to get what I want.                      | 1 | 2 | 3 | 4 |
| 6. I like challenges and beating the odds  | 1 | 2 | 3 | 4 |
| 7. I visualize my dreams and try to achieve them   | 1 | 2 | 3 | 4 |
| 8. Despite numerous setbacks, I usually succeed in getting what I want.                            | 1 | 2 | 3 | 4 |
| 9. I try to pinpoint what I need to succeed.   | 1 | 2 | 3 | 4 |
| 10. It is easy for me to stick to my aims and accomplish my goals.                                 | 1 | 2 | 3 | 4 |
| 11. I am confident that I could deal efficiently with unexpected events.                           | 1 | 2 | 3 | 4 |
| 12. I always try to find a way to work around obstacles; nothing really stops me.                  | 1 | 2 | 3 | 4 |
| 13. I often see myself failing so I don't get my hopes up too high                                 | 1 | 2 | 3 | 4 |
| 14. I can solve most problems if I invest the necessary effort.                                    | 1 | 2 | 3 | 4 |
| 15. Thanks to my resourcefulness, I know how to handle unforeseen situations.                      | 1 | 2 | 3 | 4 |
| 16. When I apply for a position, I imagine myself filling it                                       | 1 | 2 | 3 | 4 |
| 17. I turn obstacles into positive experiences   | 1 | 2 | 3 | 4 |
| 18. If someone tells me I can't do something, you can be sure I will do it.                        | 1 | 2 | 3 | 4 |
| 19. When I experience a problem, I take the initiative in resolving it.                            | 1 | 2 | 3 | 4 |
| 20. I can remain calm when facing difficulties because I can rely on my coping abilities.          | 1 | 2 | 3 | 4 |
| 21. When I am confronted with a problem, I can usually find several solutions.                     | 1 | 2 | 3 | 4 |
| 22. When solving my own problems, other people's advice can be helpful.                            | 1 | 2 | 3 | 4 |
| 23. I try to talk and explain my stress in order to get feedback from my friends.                  | 1 | 2 | 3 | 4 |
| 24. Information I get from others has often helped me deal with my problems.                       | 1 | 2 | 3 | 4 |
| 25. I can identify people who can help me develop my own solutions to problems.                    | 1 | 2 | 3 | 4 |
| 26. I ask others what they would do in my situation.   | 1 | 2 | 3 | 4 |
| 27. Talking to others can be really useful because it provides another perspective on the problem. | 1 | 2 | 3 | 4 |
| 28. Before getting messed up with a problem, I'll call a friend to talk about it.                  | 1 | 2 | 3 | 4 |
| 29. When I am in trouble, I can usually work out something with the help of others.                | 1 | 2 | 3 | 4 |
| 30. If I am depressed, I know who I can call to help me feel better.                               | 1 | 2 | 3 | 4 |
| 31. Others help me feel cared for.   | 1 | 2 | 3 | 4 |
| 32. If I am in trouble, I can usually think of a solution.   | 1 | 2 | 3 | 4 |

33. I can usually handle whatever comes my way.	1	2	3	4
34. I know who can be counted on when the chips are down.	1	2	3	4
35. When I'm depressed, I get out and talk to others.	1	2	3	4
36. I confide my feelings in others to build up and maintain close relationships.	1	2	3	4
37. When I have a problem, I usually see myself in a no-win situation.	1	2	3	4

## Part II

This set of questions consists of thoughts or feelings that you may have experienced since hearing of your loved one's prognosis. These are common grief experiences for many individuals. If you would like a copy of this section of the survey (e.g. to share with your bereavement counselor in order to facilitate discussion), please notify the researcher.

Please use the following scale for answering this set of questions as they pertain to your thoughts and feelings **during the past two weeks, including today**:

Does not describe me at all = **1**

Does not quite describe me = **2**

Describes me fairly well = **3**

Describes me well = **4**

Describes me very well = **5**

**In the past two weeks, including today...**(please circle one response to each question)

1. My hopes are shattered	1	2	3	4	5
2. I have learned to cope better with life	1	2	3	4	5
3. I have little control over my sadness	1	2	3	4	5
4. I feel like I am in shock	1	2	3	4	5
5. I am preoccupied with feeling worthless	1	2	3	4	5
6. I feel as though I am a better person	1	2	3	4	5
7. I believe I should die and he or she should live	1	2	3	4	5
8. I have a better outlook on life	1	2	3	4	5
9. I feel heaviness in my heart	1	2	3	4	5
10. I want to die to be with him or her when he or she dies	1	2	3	4	5
11. I have more compassion for others	1	2	3	4	5
12. I forget things easily (e.g. names, phone #s)	1	2	3	4	5
13. I am confused about who I am	1	2	3	4	5
14. I have lost my confidence	1	2	3	4	5
15. I am stronger because of the grief I am going through	1	2	3	4	5
16. I don't believe I will ever be happy again	1	2	3	4	5
17. I have difficulty remembering things from the past	1	2	3	4	5
18. I feel unable to cope	1	2	3	4	5
19. I agonize over his or her approaching death	1	2	3	4	5
20. I am a more forgiving person	1	2	3	4	5
21. I have difficulty concentrating	1	2	3	4	5
22. I feel like I am walking in my sleep	1	2	3	4	5
23. I avoid tenderness	1	2	3	4	5
24. I am more tolerant of myself	1	2	3	4	5
25. I have difficulty learning new things	1	2	3	4	5
26. I have difficulty accepting the permanence of death	1	2	3	4	5
27. I am more tolerant of others	1	2	3	4	5
28. I feel like I don't know myself	1	2	3	4	5
29. I have hope for the future	1	2	3	4	5
30. I have difficulty with abstract thinking	1	2	3	4	5

31. I feel hopeless	1	2	3	4	5
32. I have difficulty remembering new information	1	2	3	4	5
33. I have reached a turning point where I began to let go of some of my grief	1	2	3	4	5
34. I am afraid that I will lose control	1	2	3	4	5
35. I feel detached from others	1	2	3	4	5
36. I frequently cry	1	2	3	4	5
37. Tasks seem insurmountable	1	2	3	4	5
38. I ache with loneliness	1	2	3	4	5
39. I am having more good days than bad	1	2	3	4	5
40. I care more deeply for others	1	2	3	4	5

### Part III

This section will inquire about your response to hearing of your loved one's prognosis. This will be considered the "event."

Please use the following scale for answering this set of questions:

- I did not experience this change as a result of this event = **0**  
 I experienced this change to a very small degree as a result of this event = **1**  
 I experienced this change to a small degree as a result of this event = **2**  
 I experienced this change to a moderate degree as a result of this event = **3**  
 I experienced this change to a great degree as a result of this event = **4**  
 I experienced this change to a very great degree as a result of this event = **5**

**Since this hearing of this prognosis and impending loss,** (please circle one response per question)...

1. I changed my priorities about what is important in life.	0	1	2	3	4	5
2. I have a greater appreciation for the value of my own life.	0	1	2	3	4	5
3. I developed new interests.	0	1	2	3	4	5
4. I have a greater feeling of self-reliance.	0	1	2	3	4	5
5. I have a better understanding of spiritual matters.	0	1	2	3	4	5
6. I more clearly see that I can count on people in times of trouble.	0	1	2	3	4	5
7. I established a new path for my life.	0	1	2	3	4	5
8. I have a great sense of closeness with others.	0	1	2	3	4	5
9. I am more willing to express my emotions.	0	1	2	3	4	5
10. I know better that I can handle difficulties.	0	1	2	3	4	5
11. I am able to do better things with my life.	0	1	2	3	4	5
12. I am better able to accept the way things work out.	0	1	2	3	4	5
13. I can better appreciate each day.	0	1	2	3	4	5
14. New opportunities are available which wouldn't have been otherwise.	0	1	2	3	4	5
15. I have more compassion for others.	0	1	2	3	4	5
16. I put more effort into my relationships.	0	1	2	3	4	5
17. I am more likely to try to change things which need changing.	0	1	2	3	4	5
18. I have a stronger religious faith.	0	1	2	3	4	5
19. I discovered that I'm stronger than I thought I was.	0	1	2	3	4	5
20. I learned a great deal about how wonderful people are.	0	1	2	3	4	5
21. I better accept needing others.	0	1	2	3	4	5

**APPENDIX F**  
**PROACTIVE COPING INVENTORY (PCI)**

*Proactive Coping Subscale (14 items)*

1. I am a “take charge” person.
2. I try to let things work out on their own (-)
3. After attaining a goal, I look for another, more challenging one.
6. I like challenges and beating the odds.
7. I visualize my dreams and try to achieve them.
8. Despite numerous setbacks, I usually succeed in getting what I want.
9. I try to pinpoint what I need to succeed.
12. I always try to find a way to work around obstacles; nothing really stops me.
13. I often see myself failing so I don’t get my hopes up too high. (-)
16. When applying for a position, I imagine myself filling it.
17. I turn obstacles into positive experiences.
18. If someone tells me I can’t do something, you can be sure I will do it.
19. When I experience a problem, I take the initiative in resolving it.
37. When I have a problem, I usually see myself in a no-win situation. (-)

*Social Support Scales*

*Emotional Support Seeking Subscale (5 items)*

30. If I am depressed, I know who I can call to help me feel better.
31. Others help me feel cared for.
34. I know who can be counted on when the chips are down.
35. When I’m depressed I get out and talk to others.
36. I confide my feelings in others to build up and maintain close relationships.

*Instrumental Support Seeking Subscale (8 items)*

22. When solving my own problems, other people’s advice can be helpful.
23. I try to talk and explain my stress in order to get feedback from my friends.
24. Information I get from others has often helped me deal with my problems.
25. I can usually identify people who can help me develop my own solutions to problems.
26. I ask others what they would do in my situation.
27. Talking to others can be really useful because it provides perspective on the problem.
28. Before getting messed up with a problem, I’ll call a friend to talk about it.
29. When I am in trouble, I can usually work out something with the help of others.



**APPENDIX G****GENERAL SELF-EFFICACY SCALE (GSE)**

*GSE Full-Scale* (10 items)

- 4. I can always manage to solve difficult problems if I try hard enough.
- 5. If someone opposes me, I can find the means and ways to get what I want.
- 10. It is easy for me to stick to my aims and accomplish my goals.
- 11. I am confident that I could deal efficiently with unexpected events.
- 15. Thanks to my resourcefulness, I know how to handle unforeseen situations.
- 14. I can solve most problems if I invest the necessary effort.
- 20. I can remain calm when facing difficulties because I can rely on my coping abilities.
- 21. When I am confronted with a problem, I can usually find several solutions.
- 32. If I am in trouble, I can usually think of a solution.
- 33. I can usually handle whatever comes my way.

**APPENDIX H**

**POSTTRAUMATIC GRIEF INVENTORY (PTGI)**

*PTGI Full-Scale (21 items)*

1. I changed my priorities about what is important in life .
2. I have a greater appreciation for the value of my own life.
3. I developed new interests.
4. I have a greater feeling of self-reliance.
5. I have a better understanding of spiritual matters.
6. I more clearly see that I can count on people in times of trouble.
7. I established a new path for my life.
8. I have a great sense of closeness with others.
9. I am more willing to express my emotions.
10. I know better than I can handle difficulties.
11. I am able to do better things with my life.
12. I am better able to accept the way things work out.
13. I can better appreciate each day.
14. New opportunities are available which wouldn't have been otherwise.
15. I have more compassion for others.
16. I put more effort into my relationships.
17. I am more likely to try to change things when need changing.
18. I have a stronger religious faith.
19. I discovered that I'm stronger than I thought I was.
20. I discovered that I'm stronger than I thought I was.
21. I better accept needing others.

**APPENDIX I**

**HOGAN GRIEF REACTION CHECKLIST (HGRC)**

*Despair Subscale (13 items)*

- 1. My hopes are shattered.
- 3. I have little control over my sadness.
- 4. I feel like I am in shock.
- 7. I believe I should die and he or she should live.
- 9. I feel heaviness in my heart.
- 10. I want to die to be with him or her.
- 16. I don't believe I will ever be happy again.
- 19. I agonize over his or her death.
- 22. I feel like I am walking in my sleep.
- 26. I have difficulty accepting the permanence of the death.
- 31. I feel hopeless.
- 36. I frequently cry.
- 38. I ache with loneliness.

*Detachment Subscale (8 items)*

- 5. I am preoccupied with feeling worthless.
- 13. I am confused about who I am.
- 14. I have lost my confidence.
- 18. I feel unable to cope.
- 23. I avoid tenderness.
- 28. I feel like I don't know myself.
- 34. I am afraid that I will lose control.
- 35. I feel detached from others.

*Disorganization Subscale (7 items)*

- 12. I forget things easily (e.g. names, phone numbers)
- 17. I have difficulty remembering things from the past.
- 25. I have difficulty learning new things.
- 30. I have difficulty with abstract thinking.
- 32. I have difficulty remembering new information.
- 37. Tasks seem insurmountable.

*Personal Growth Subscale (12 items)*

- 2. I have learned to cope better with life.
- 6. I feel as though I am a better person.
- 8. I have a better outlook on life.
- 11. I have more compassion for others.
- 15. I am stronger because of the grief I have experienced.
- 20. I am a more forgiving person.
- 24. I am more tolerant of myself.
- 27. I am more tolerant of others.
- 29. I have hope for the future.
- 33. I have reached a turning point where I began to let go of some of my grief.
- 39. I am having more good days than bad.
- 40. I care more deeply for others.

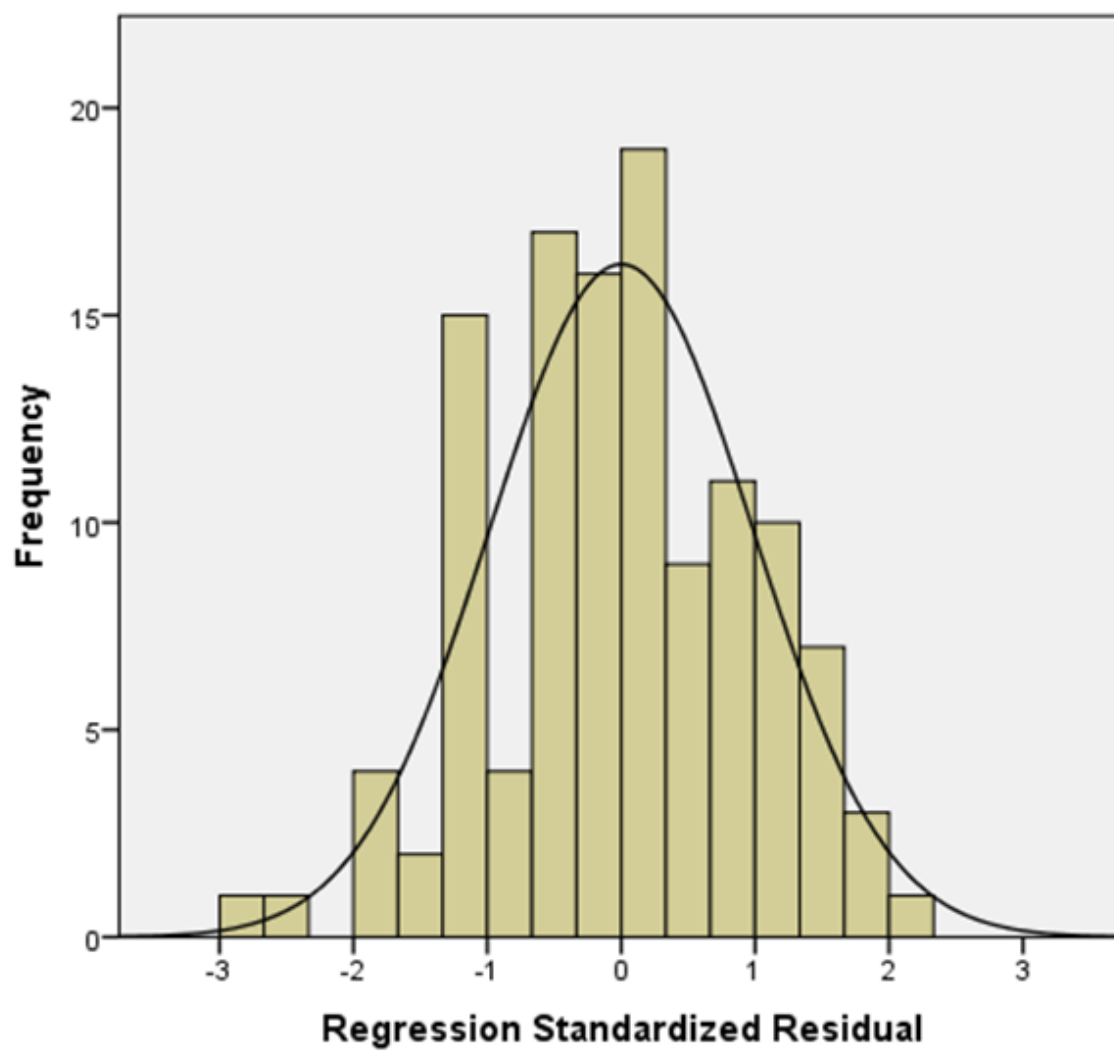
**APPENDIX J**

**HIERARCHICAL REGRESSION ASSUMPTIONS**

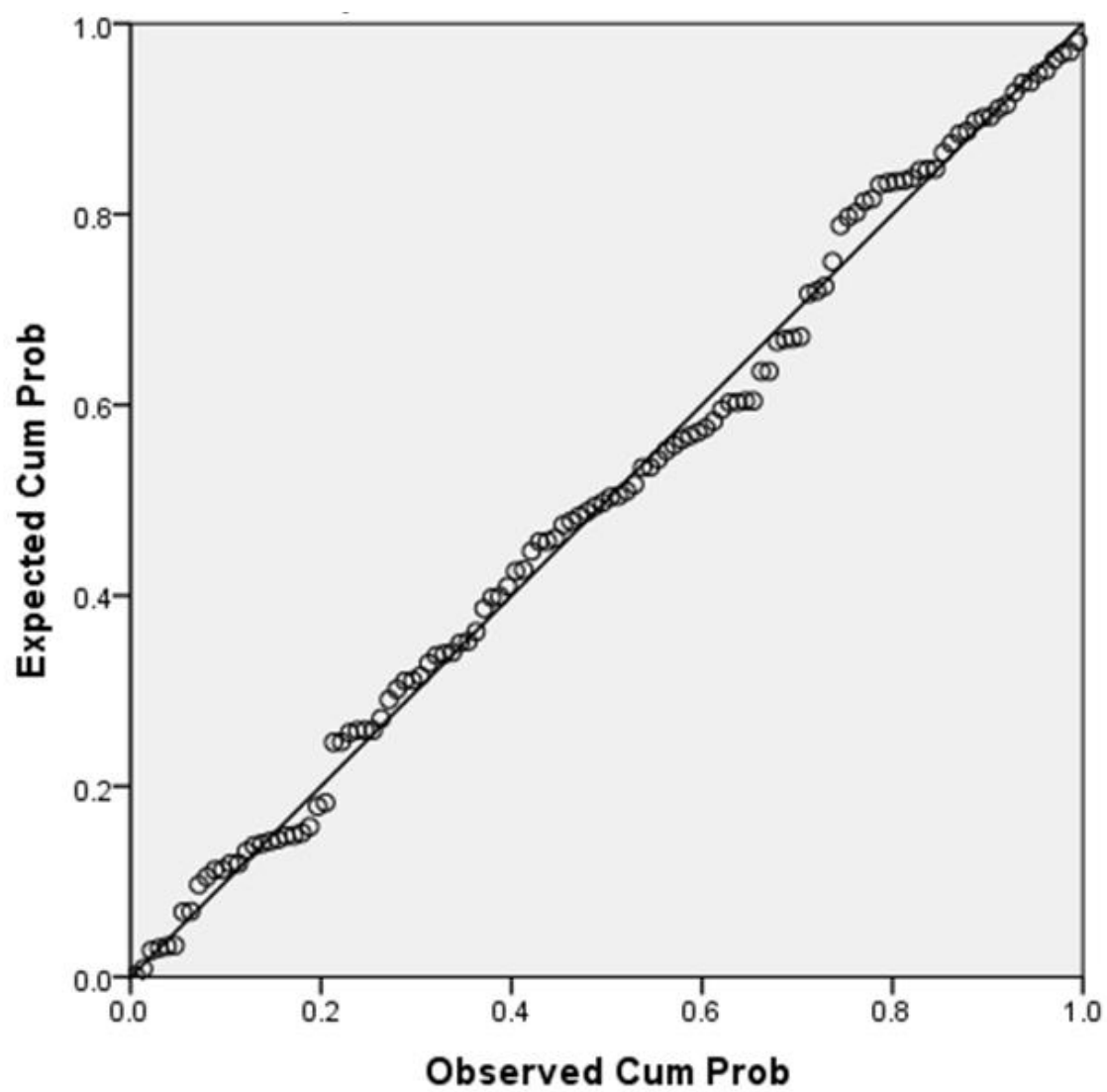
**POSTTRAUMATIC GROWTH (DV)**



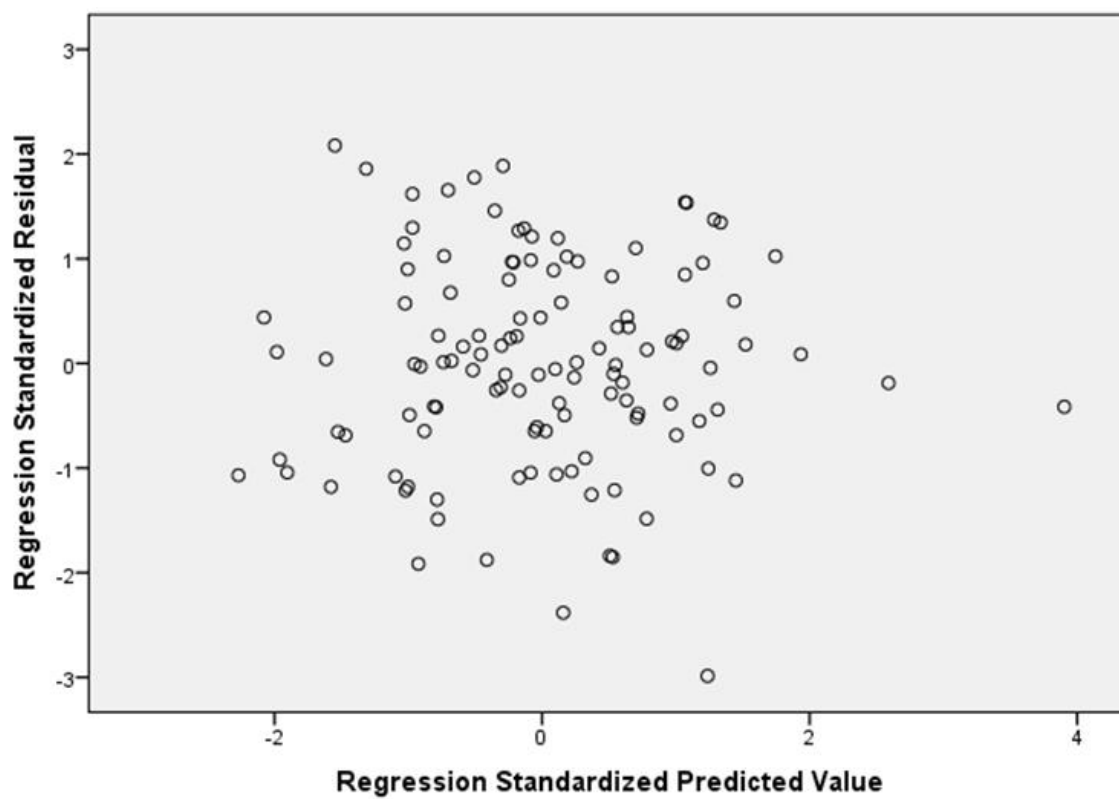
Normality (Histogram)



Linearity (Normal P-P Plot)

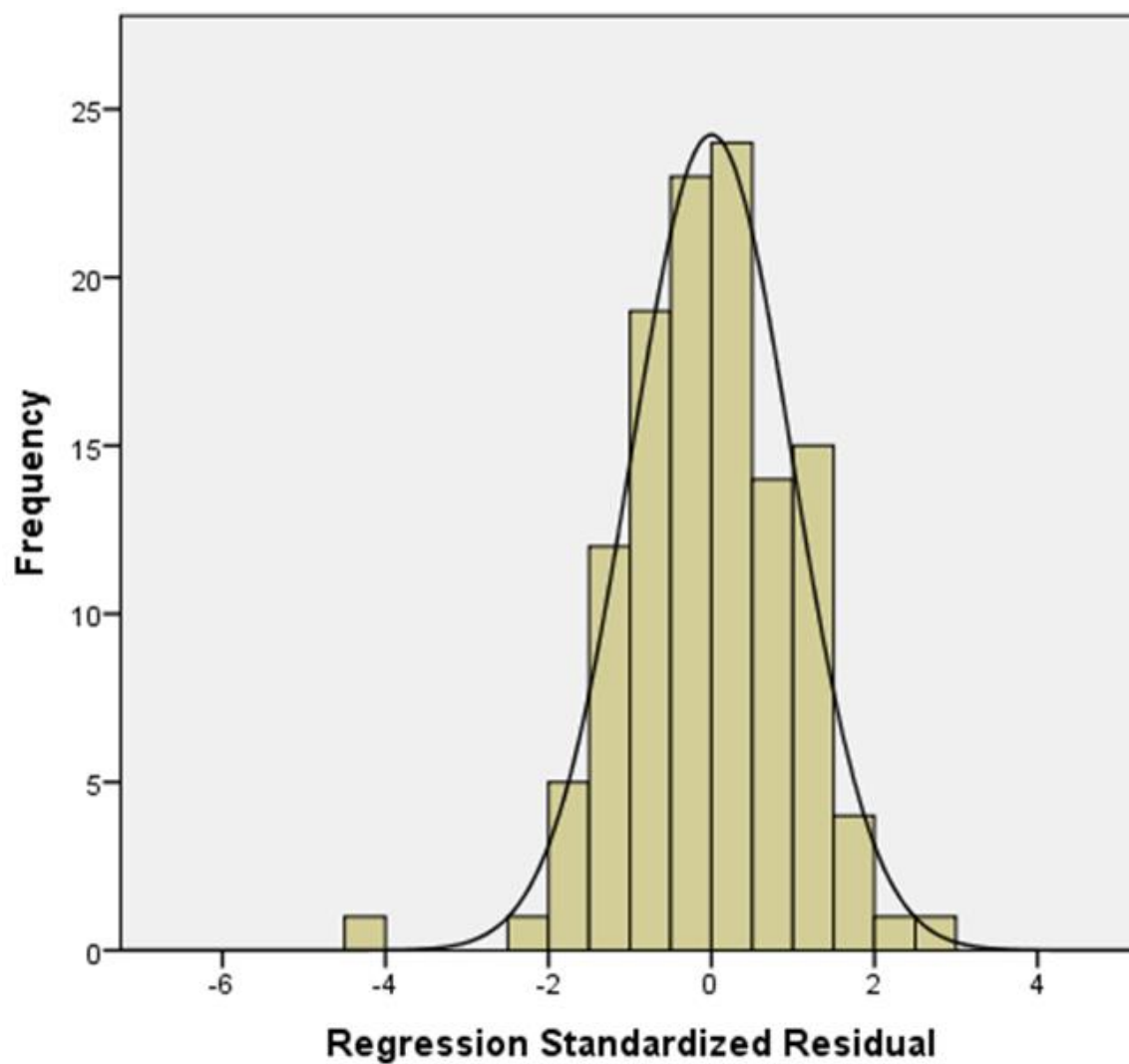


## Homoscedasticity (Scatterplot of Standardized Residuals)

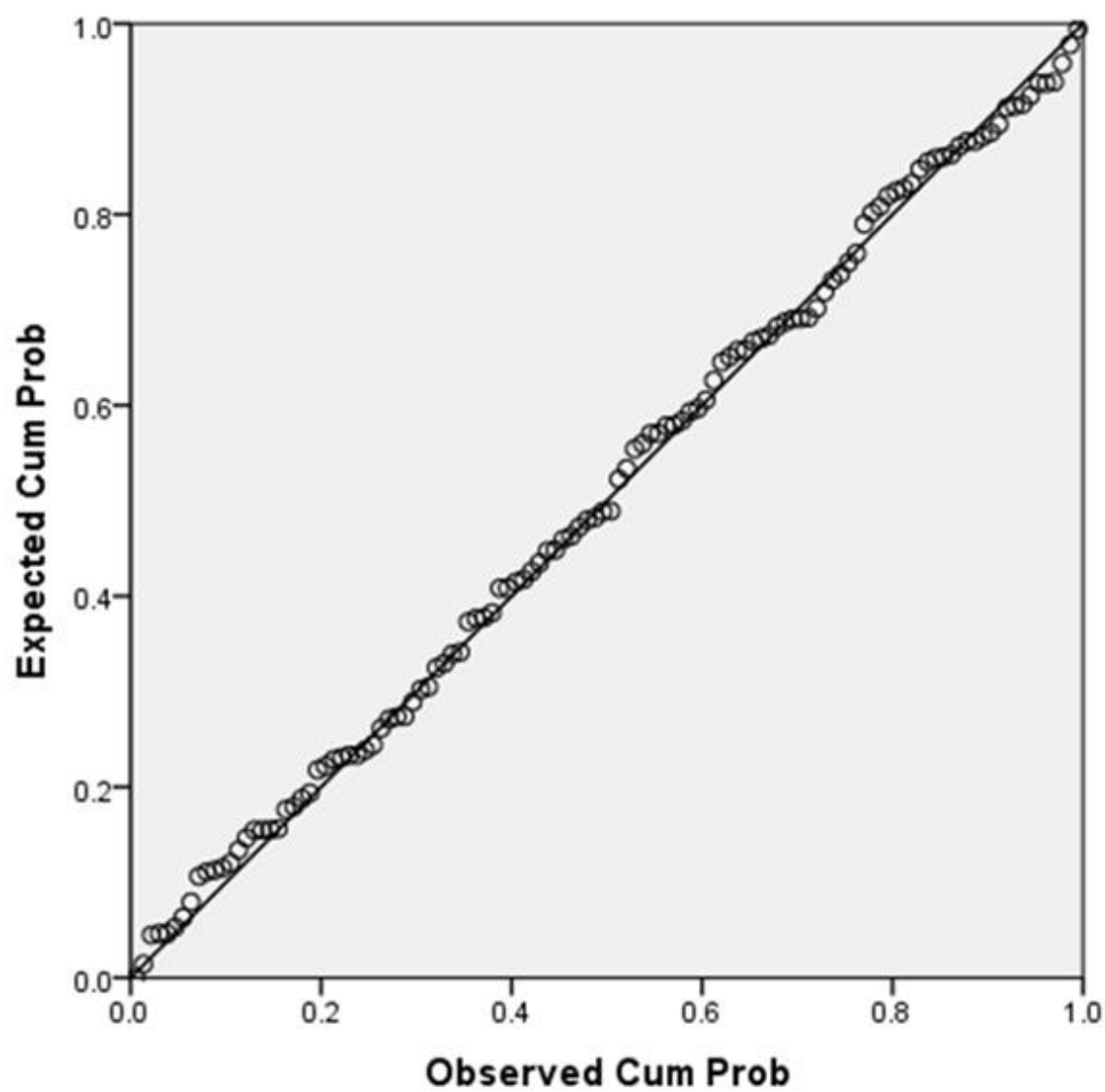


**APPENDIX K**  
**HIERARCHICAL REGRESSION ASSUMPTIONS**  
**PERSONAL GROWTH (DV)**

Normality (Histogram)



Linearity (Normal P-P Plot)



Homoscedasticity (Scatterplot of Standardized Residuals)

