Summer 2018

Posttraumatic Growth of Young Adults Who Experienced A Parental Death during Adolescence: An Eriksonian Developmental Perspective

Victor Tuazon
College of William and Mary - School of Education, vetuazon@email.wm.edu

Follow this and additional works at: https://scholarworks.wm.edu/etd

Part of the Psychiatric and Mental Health Commons

Recommended Citation
http://dx.doi.org/10.25774/w4-2knj-hf92

This Dissertation is brought to you for free and open access by the Theses, Dissertations, & Master Projects at W&M ScholarWorks. It has been accepted for inclusion in Dissertations, Theses, and Masters Projects by an authorized administrator of W&M ScholarWorks. For more information, please contact scholarworks@wm.edu.
POSTTRAUMATIC GROWTH OF YOUNG ADULTS WHO EXPERIENCED A
PARENTAL DEATH DURING ADOLESCENCE: AN ERIKSONIAN
DEVELOPMENTAL PERSPECTIVE

A Dissertation

Presented to

The Faculty of the School of Education

William & Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

by

Victor Eleazar Tuazon

February 2018
POSTTRAUMATIC GROWTH OF YOUNG ADULTS WHO EXPERIENCED A PARENTAL DEATH DURING ADOLESCENCE: AN ERIKSONIAN DEVELOPMENTAL PERSPECTIVE

by

Victor Eleazar Tuazon

Approved February 2018 by

Charles F. Gressard, Ph.D.
Chairperson of Doctoral Committee

Thomas J. Ward, Ph.D.

Patrick R. Mullen, Ph.D.
DEDICATION

This dissertation is dedicated to my mother. Despite experiencing the tremendous life difficulty of losing a parent during adolescence, she has demonstrated inspiring amounts of growth.
TABLE OF CONTENTS

DEDICATION ................................................................................................................ iii

ACKNOWLEDGEMENTS .............................................................................................. ix

LIST OF TABLES .......................................................................................................... xi

ABSTRACT ...................................................................................................................... xiv

CHAPTER ONE: INTRODUCTION ............................................................................. 2

Statement of the Problem ............................................................................................. 2

Current Approaches ...................................................................................................... 8

Deficits in the Current Approaches ............................................................................ 9

Current Study .............................................................................................................. 13

Justification for an Eriksonian Framework ................................................................ 15

Purpose of the Study ................................................................................................... 21

Overview of the Study .................................................................................................. 22

Definition of Terms ...................................................................................................... 23

Summary ...................................................................................................................... 24

CHAPTER TWO: LITERATURE REVIEW .................................................................. 25

Maladjustment ............................................................................................................ 26

Risk Factors ............................................................................................................... 29

Population-based Studies ........................................................................................... 36

Adaptive Functioning .................................................................................................. 39

Protective Factors ....................................................................................................... 40
Current Treatment Modalities ................................................................. 42
The Family Bereavement Program .......................................................... 44
Other Modalities ................................................................................. 45
Communication ..................................................................................... 47
Supporting the Surviving Caregiver ...................................................... 48
Counselor Education ............................................................................. 49
Positive Outcomes ................................................................................ 51
Posttraumatic Growth .......................................................................... 52
Correlates of PTG ................................................................................. 59
PTG and Bereavement .......................................................................... 64
Correlates of PTG Following Bereavement .......................................... 68
PTG and Development ......................................................................... 75
Developmental Implications of Parent Loss During Adolescence .......... 79
Impact on Subsequent Developmental Stages ....................................... 84
Summary ............................................................................................... 86

CHAPTER THREE: RESEARCH METHODOLOGY .................................. 90
Population and Sample ......................................................................... 90
Data Collection ..................................................................................... 91
Instrumentation .................................................................................... 96
Demographic Questionnaire ............................................................... 96
Modified Erikson Psychosocial Stage Inventory .................................... 98
Multidimensional Scale of Perceived Social Support ........................... 101
Assessment of Spirituality and Religious Sentiments ........................................... 102

Texas Revised Inventory of Grief ............................................................................. 105

Posttraumatic Growth Inventory Expanded .......................................................... 109

Research Questions and Hypotheses ...................................................................... 111

Research Design ....................................................................................................... 114

Data Analysis ........................................................................................................... 115

Research Question 1 ................................................................................................. 115

Research Question 2 ................................................................................................. 116

Research Question 3 ................................................................................................. 117

Research Question 4 ................................................................................................. 118

Ethical Considerations ............................................................................................. 120

Limitations ............................................................................................................... 121

Summary .................................................................................................................. 122

CHAPTER FOUR: ANALYSIS & RESULTS .............................................................. 124

Demographic Information ......................................................................................... 124

Age ............................................................................................................................ 125

Gender ....................................................................................................................... 126

Race/Ethnicity ........................................................................................................... 128

SES ............................................................................................................................ 130

Other Loss group Demographic Information ......................................................... 131

Instrument Descriptive Statistics ........................................................................... 135

MEPSI ....................................................................................................................... 136
ACKNOWLEDGEMENTS

First, I would like to acknowledge my dissertation committee. Dr. Gressard, thank you for everything. You truly are the embodiment of the “spirit of motivational interviewing.” You effortlessly challenge and support me, and I have grown so much personally and professionally because of you. I am beyond honored and grateful to have you as my academic advisor and mentor. I am also appreciative that you allowed me to direct the New Leaf Clinic, which has been very formative in my experience as a doctoral student. I consider myself extremely fortunate to have you in my life.

Dr. Ward, your tireless commitment to me did not go unnoticed. I have learned so much about research and statistics from you. Your encouragement and words of wisdom and advice came exactly when I needed it, and you gave them to me so effortlessly. I truly appreciate all the guidance that you gave me. Dr. Mullen, the level of commitment you have shown me is more than I could have asked for. I am amazed with how much you have invested in me in such a short period of time. Thank you for being present with me, gently challenging me to grow as a counselor educator. I look forward to working with you in the future.

Next, I would like to acknowledge the other counselor education faculty at William & Mary. Dr. Brendel, thank you for your amazing support. I will never forget your words of encouragement. You have mentored me so much as a supervisor and educator, and your impact in my life has been deeply profound. Dr. Gutierrez, it has been so rewarding working with you at the New Leaf Clinic and on our various research projects. I couldn’t have asked for anyone better, and I truly enjoyed all the times we had together. Your spirit is always uplifting and I look forward to working with you in the
future. Dr. Foster and Dr. McAdams, thank you both for being a critical part of my doctoral journey and allowing me to join the New Horizons Family Counseling Center. I am a stronger academic writer and family counselor because of you, and the developmental perspective that you have instilled in me will stay with me forever. I am so grateful for the vast amount of time you both invested in me. Dr. Haskins, thank you for your relentless commitment to social justice. You challenge me to become a better advocate. I also want to thank Dean Niles. I was successful in my job search because of your mentorship and support, and I feel very privileged to have you as my dean.

To Clay, Colleen, Edith, and Nate, thank you for being the best cohort. We have been through the ups and downs of the program, but we have remained so cohesive. You have become my true friends and I will miss you all severely. I know we will keep in touch, and I am glad I can continue my career as a counselor educator with you all by my side. To all my other friends in Williamsburg and across the globe—you know who you are—thank you for being there for me and supporting me, whether or not you completely understood what I was going through or what I was talking about. The ability to just have fun and play is what I needed at times to get through my doctoral program.

To my family, I am forever grateful for your unconditional love, which I have never felt waver throughout my life. I could not have done this without your care and support, and having you all in my life prepared me to complete this journey with excellence. Lastly, I want to thank God—my help, my strength, my love, my everything—for in Him I live, move, and have my being.
LIST OF TABLES

Table 1: Erikson's Psychosocial Stages ......................................................... 16
Table 2: Demographic Information for Age .................................................. 126
Table 3: Demographic Information for Gender .......................................... 127
Table 4: Demographic Information for Race/Ethnicity .............................. 129
Table 5: Demographic Information for SES .............................................. 131
Table 6: Demographic Information for Gender of Deceased Parent .......... 132
Table 7: Demographic Information for Age When Parent Died and Years Since Parental Death ........................................................................................................ 132
Table 8: Demographic Information for Cause of Parental Death ............... 134
Table 9: Demographic Information for Level of Closeness to Deceased Parent ...... 135
Table 10: Descriptive Statistics and Reliability Coefficients for the MEPSI, MSPSS, ASPIRES, TRIG, and PTGI-X ......................................................................................... 136
Table 11: Two-sample t-test Between Non-loss Group MEPSI Global Scale and Loss Group MEPSI Global Scale ......................................................................................... 146
Table 12: Two-sample t-test Between MEPSI Global Scale for Males and Females .... 147
Table 13: One-way ANOVA Test for MEPSI Global Scale Between Race/Ethnicity Groups ........................................................................................................... 147
Table 14: One-way ANOVA Test for MEPSI Global Scale Between SES Groups ...... 148
Table 15: One-way ANOVA Test for MEPSI Global Scale Between Age Groups ...... 149
Table 16: One-way ANOVA Test for MEPSI Global Scale Between Causes of Parental Death ........................................................................................................... 149
Table 17: Two-sample t-test Between MEPSI Global Scale for Gender of Deceased Parent .............................................................. 150

Table 18: One-way ANOVA Test for MEPSI Global Scale Between Age Groups of When Parental Death Occurred .............................................................. 151

Table 19: One-way ANOVA Test for MEPSI Global Scale Between Levels of Closeness to the Deceased Parent .............................................................. 152

Table 20: Pearson’s Product-moment Correlations for MEPSI, MSPSS, ASPIRES, TRIG, and PTGI-X .......................................................................................... 154

Table 21: Summary of Sequential Regression Analysis for Posttraumatic Growth ...... 162

Table 22: Predictor Variables of Sequential Regression Analyses for Posttraumatic Growth .............................................................................................. 162

Table 23: Two-sample t-test Between Non-loss Group MSPSS Family Subscale and Loss Group MSPSS Family Subscale .............................................................. 163

Table 24: Two-sample t-test Between Non-loss Group MSPSS Total Score Total and Loss Group MSPSS Total Score ........................................................................ 164

Table 25: Two-sample t-tests Between Non-loss Group ASPIRES – ST and Loss Group ASPIRES – ST ....................................................................................... 164

Table 26: Two-sample t-tests Between Non-loss Group ASPIRES – ST Subscales and Loss Group ASPIRES – ST Subscales ..................................................................... 165

Table 27: Two-sample t-test Between Non-loss Group ASPIRES – RC Subscale and Loss Group ASPIRES – RC Subscale ................................................................ 166

Table 28: Two-sample t-test Between Non-loss Group MEPSI Subscales and Loss Group MEPSI Subscales ............................................................................... 167
Table 29: One-way ANOVA Test for PTGI-X Total Score Between Levels of Closeness to the Deceased Parent ................................................................. 169

Table 30: Two-sample t-test Between Participants Who Selected “Closer than any relationship I’ve ever had before or since” and “Not very close at all” ............... 169

Table 31: Pearson’s Product-moment Correlations for MSPSS Subscales and PTGI-X 170
Impacting millions of youth in the United States and across the globe, early parental death can be a very stressful and traumatic event and is an important topic to investigate. Utilizing an Eriksonian developmental perspective, this study (N = 256) examined a group of young adults who experienced a parental death during adolescence and a group of young adults who had not experienced an early parental death. The researcher examined the developmental impact of early parental death, and developed a predictive model of posttraumatic growth (PTG) for young adults who have experienced early parental death. When compared to non-bereaved peers, young adults who experienced a parental death during adolescence had lower psychosocial developmental strength; this impact did not vary due to demographic variables (e.g., gender, SES, ethnicity, age), type of parental death, gender of the deceased parent, age when death occurred, or the closeness of the relationship with the deceased parent. This study also affirmed the relationships between psychosocial development, social support, religiosity/spirituality, and PTG, emphasizing social support, spirituality, and psychosocial development as statistically significant predictors of PTG in young adults who experienced an early parental death. The strong statistical relationship between psychosocial development and PTG also affirmed the literature that has theorized this relationship. Investigating two different developmental periods contributed to the limited
research on the long-term trajectory of PTG in individuals who experienced early parental death, and provided insight into sustaining PTG throughout the lifespan as well. Limitations and suggestions for future research are presented, along with implications for the profession of counseling.
POSTTRAUMATIC GROWTH OF YOUNG ADULTS WHO EXPERIENCED A PARENTAL DEATH DURING ADOLESCENCE: AN ERIKSONIAN DEVELOPMENTAL PERSPECTIVE
CHAPTER ONE: INTRODUCTION

In 2003, an estimated 143 million orphans existed in 93 countries around the world (UNAIDS, UNICEF, & USAID, 2005). In the United States alone, approximately 3.4% of children, totaling over 2.5 million youth, experience the death of a parent before the age of 18 (U.S. Bureau of the Census, 2001). This complex experience can be challenging to investigate because normative grief reactions in children are difficult to define; this is due to the theoretical notion that grief varies depending on developmental level, culture, spiritual or religious beliefs, and prior life experiences (Kaplow, Layne, Pynoos, Cohen, & Lieberman, 2012). Additionally, children highly depend on their immediate caretaking environment to facilitate their grief and mourning (Shapiro, Howell, & Kaplow, 2014) and to make meaning of their loss (Kaplow et al., 2012). Nevertheless, early parental death—the death of a parent during childhood or adolescence—is a very stressful and potentially traumatic event (Berg, Rostila, & Hjern, 2016; Berg, Rostila, Saarela, & Hjern, 2014; Rostila & Saarela, 2011) that may lead to both short-term and long-term consequences (Geulayov, Gunnell, Holmen, & Metcalfe, 2012). Thus, early parental death has been associated with negative health outcomes throughout the lifespan of the surviving child (Rostila & Saarela, 2011).

Statement of the Problem

After experiencing the death of a parent, 75-80% of children do not develop severe mental health problems (Cerel, Fristad, Verducci, Weller, & Weller, 2006;
Dowdney, 2005; Luecken & Roubinov, 2012; Worden, Davies, & McCown, 1999). Despite experiencing some distress and difficulty adjusting to a parental death, most children will return to pre-death levels of functioning within a year (Worden, 1996). Several protective factors can promote this successful adaptation to early parental death. For example, expressive coping that does not become excessively dysregulated or result in rumination can be linked to positive adaptation (Howell, Shapiro, Layne, & Kaplow, 2015; Saler & Skolnick, 1992; Sandler, Kim-Bae, & MacKinnon, 2000; Shapiro, Kaplow, Amaya-Jackson, & Dodge, 2012). Similarly, children who exhibit confidence in their ability to cope with difficult emotions positively adapt to the death of a parent (Howell et al., 2015; K. K. Lin, Sandler, Ayers, Wolchik, & Luecken, 2004). Spiritual beliefs and religious practices can also be a protective factor for youth dealing with the effects of parental death (Andrews & Marotta, 2005; Howell et al., 2015). However, few researchers have investigated the role of spirituality and religiosity in the adaptive functioning of parentally bereaved adolescents; thus, more research should be conducted to explore these factors in-depth. This is especially important because assisting children and families to identify belief systems can help them make meaning of their loss and maintain a feeling of connectedness to the deceased (Howell et al., 2015).

Another protective factor is the presence of a supportive caregiver who successful grieves, copes with his or her own emotions, and helps his or her child do the same by having open, engaging, comforting, understanding, and warm dialogue about the loss; thus, effective parenting (i.e., provision of warmth, acceptance, and effective discipline) and creating a safe and supportive caregiving environment predict lower levels of mental health problems in parentally bereaved youth (Clark, Pynoos, & Goebel, 1994; Howell et
al., 2015; K. K. Lin et al., 2004; Lutz, Hock, & Kang, 2007; Melhem, Walker, Moritz, & Brent, 2008; Saldinger, Porterfield, & Cain, 2004; Sandler et al., 2003; Sandler, Gersten, Reynolds, Kallgren, & Ramirez, 1988; Shapiro et al., 2014; Wolchik, Tein, Sandler, & Ayers, 2006). Although developmental competencies are also seen as an important protective factor (Pynoos, Steinberg, & Wraith, 1995), few researchers have conducted empirical studies to examine the role of development as a protective factor in early parental death.

Although a majority of children do not develop severe mental health problems after the death of a parent, approximately 20% experience severe grief reactions that lead to clinically significant impairment and the development of a psychiatric disorder (Dowdney, 2000; Melhem, Porta, Shamseddeen, Payne, & Brent, 2011). Not only can parentally bereaved youth experience distress immediately following the death, they can also experience psychiatric problems (Melhem et al., 2008), suicidal behaviors (Agerbo, Nordentoft, & Mortensen, 2002; Gravseth, Mehlum, Bjerkedal, & Kristensen, 2010; Hollingshaus & Smith, 2015; Mack, 2001; Niederkrotenthaler, Floderus, Alexanderson, Rasmussen, & Mittendorfer-Rutz, 2012), anxiety (Cerel et al., 2006; Dowdney, 2000; Kendler, Sheth, Gardner, & Prescott, 2002), depressive symptoms (Brent, Melhem, Donohoe, & Walker, 2009; Cerel et al., 2006; Dowdney, 2000; Gray, Weller, Fristad, & Weller, 2011; Kendler et al., 2002; Mack, 2001; Melhem et al., 2008), angry outbursts (Dowdney, 2000; Mack, 2001), lower self-esteem (Berg et al., 2014; Cerel et al., 2006; Mack, 2001), lower self-efficacy (Worden, 1996), academic difficulties (Abdelnoor & Hollins, 2004; Berg et al., 2014), social withdrawal and social skill deficits (Worden, 1996), and regressions in developmental milestones and competence several years after
the death (Brent, Melhem, Masten, Porta, & Payne, 2012; Dowdney, 2000; Worden, 1996).

In adulthood, parentally bereaved youth also are at risk for depression (Appel et al., 2013; Berg et al., 2016; Kendler et al., 2002; Kendler, Neale, Kessler, Heath, & Eaves, 1992; Melhem & Brent, 2016; Melhem et al., 2008; Tyrka, Wier, Price, Ross, & Carpenter, 2008; Wilcox et al., 2010; Worden & Silverman, 1996), anxiety (Kendler et al., 2002; Kendler et al., 1992; Tyrka et al., 2008; Worden & Silverman, 1996), suicide (Gravseth et al., 2010; Guldin et al., 2015; Wilcox et al., 2010), and alcohol and substance-related disorders (Barry, Barry, & Lindemann, 1965; Hamdan, Melhem, Porta, Song, & Brent, 2013; Oltman & Friedman, 1966). Additionally, parentally bereaved youth present with interpersonal issues such as the inability to express anger, the inability to sustain intimacy, avoidance of intimacy, and the lack of desire have children (Hepworth, Ryder, & Dreyer, 1984; Jacobson & Ryder, 1969). Finally, parentally bereaved youth present with poorer overall health as evidenced by elevated cortisol activity and mortality risks as adults (Agid et al., 1999; Krause, 1998; Luecken, Kraft, Appelhans, & Enders, 2009; K. R. Smith, Hanson, Norton, Hollingshaus, & Mineau, 2014; Tebeka, Hoertel, Dubertret, & Le Strat, 2016). Longitudinal (e.g., Brent et al., 2012; Worden, 1996) and population-based studies (e.g., Appel et al., 2013; Berg et al., 2016; Guldin et al., 2015; Wilcox et al., 2010) affirm these potential long-term consequences of early parental death.

Several risk factors exist for parentally bereaved youth. Risk factors, which may be already present before the death of a parent, include poor quality of parenting, poor quality of the parent-child relationship, subsequent negative life events, low self-system
beliefs (e.g., self-esteem, self-efficacy, social relatedness), low socioeconomic status (SES), caregiver mental health problems, and child mental health problems (Dowdney, 2000; Luecken & Roubinov, 2012; Thompson, Kaslow, Price, Williams, & Kingree, 1998; Wolchik et al., 2006). Low SES is often highlighted as a potent risk factor (Berg et al., 2014; Kaplow, Saunders, Angold, & Costello, 2010) because early parental death can exacerbate financial hardships due to a potential decrease of income, which can lead to other negative life events such as moving, losing social support, and parenting difficulties (Dowdney, 2010; Jacobs & Bovasso, 2009; Werner-Lin, Biank, & Rubenstein, 2010; Wolchik, Ma, Tein, Sandler, & Ayers, 2008). Low SES before the death of a parent is also a predictor of mental health problems after bereavement (Stikkelbroek, Bodden, Reitz, Vollebergh, & Baar, 2016). Similarly, parental relationships are often examined as a risk factor. Poor quality of the relationship between the surviving caregiver and child is a risk factor (Dowdney, 2000; Luecken & Roubinov, 2012); stressors the surviving caregiver faces can negatively impact the quality of parenting and support provided to their bereaved child (Wolchik et al., 2008). Additionally, the closer the relationship the bereaved child had to the deceased parent, the higher the risk for maladjustment (Brent et al., 1993; Melhem et al., 2008).

The type of death can also be a risk factor for parentally bereaved youth. For example, children who experienced a parental suicide exhibit higher levels of posttraumatic stress and maladaptive grief when compared to children bereaved by anticipated deaths (Kaplow, Howell, & Layne, 2014); they are also at increased risk for depression, bipolar disorder (Appel et al., 2013), and suicide (Wilcox et al., 2010). Other sudden or unexpected parental deaths, especially if the death occurred in the presence of
the child, can lead to complicated grief, depression, and posttraumatic stress (Eth & Pynoos, 1994; Melhem et al., 2008; Merlevede et al., 2004; Parkes, 1998). Additionally, external (e.g., accident, homicide, suicide) or substance abuse related causes of parental death during childhood predict self-inflicted injuries and depression in adulthood (e.g., Berg et al., 2016; Rostila, Berg, Arat, Vinnerljung, & Hjern, 2016).

Death due to disease or a natural cause is more variable. These types of death are usually preceded by an extended time of illness and preparation for the consequences of the death and thus the final loss can be less disruptive and less difficult to cope with (Rostila & Saarela, 2011), leading to a decreased risk for depression in young adulthood when compared to individuals who experienced an early parental death due to external causes (Berg et al., 2016). However, anticipated deaths can potentially create instances of disturbing circumstances, which can lead to significantly high levels of posttraumatic stress and maladaptive grief (Kaplow et al., 2014) causing psychosocial problems, depression, anxiety, and low self-esteem during the parental illness (Cerel et al., 2006; Krattenmacher et al., 2012; Siegel, Karus, & Raveis, 1996).

Other risk factors include the child’s age at the time of the parental loss; the highest risk for affective disorders and self-inflicting injuries is associated with children bereaved at a younger age (Appel et al., 2013; Berg et al., 2016; Rostila et al., 2016). When examining other demographic variables as risk factors, the importance of gender of the deceased parent or the bereaved child is inconclusive overall (e.g., Brent et al., 2009; Geulayov et al., 2012; Gray et al., 2011; Jacobs & Bovasso, 2009; Kendler et al., 2002); thus, further investigation into the variable of gender is needed.
Current Approaches

In light of these risk factors and the long-lasting consequences of early parental death in the absence of early preventive and intervention efforts (Berg et al., 2016; Melhem & Brent, 2016), clinical approaches should target bereaved children who are at risk for developing mental health problems and displaying indicators of distress early on after the death (Howell et al., 2015; Melhem & Brent, 2016; Stikkelbroek et al., 2016). Hence, the most favorable time for prevention and intervention is early on after the death, with interventions that address complicated grief (Melhem & Brent, 2016). Moreover, due to the complex nature of early parental death, both assessment and intervention measures should be targeted and contextualized with consideration of multiple domains of psychosocial functioning (e.g., caregiver-child interactions, coping strategies), along with the child and family’s history and current environmental contexts (Currier, Holland, & Neimeyer, 2007; Howell et al., 2015).

Both risk and protective factors inform the current approaches to providing support to parentally bereaved youth. For example, the Family Bereavement Program (FBP) is a multicomponent program for parentally bereaved youth that targets empirically supported risk factors and protective factors to prevent mental health problems in children and their parents (Lutzke, Ayers, Sandler, & Barr, 1997; Sandler, Tein, Wolchik, & Ayers, 2016). Other approaches include the application of attachment theory to mitigate the negative impact on relational development by strengthening the protective factors of supportive and effective parenting (Biank & Werner-Lin, 2011; Shapiro et al., 2012; M. K. Shear et al., 2007), along with cognitive behavioral prevention programs that can reduce the incidence of depression in the bereaved youth (Brent et al.,
These other approaches may augment parent-child relationships positively and enhance coping skills of parentally bereaved youth (Haine, Ayers, Sandler, Wolchik, & Weyer, 2003; Sandler et al., 2010; Wolchik et al., 2008). Thus, supporting surviving caregivers in their grief and adaptation is essential, since effective parenting (i.e., effective communication about the death) reduces mental health problems of bereaved children (Howell et al., 2015; Lutzke et al., 1997; Saldinger et al., 2004; Shapiro et al., 2014). The surviving caregiver plays a critical role in facilitating grief and mourning of the bereaved children (Kaplow et al., 2012; Shapiro et al., 2012) by promoting needed coping skills (e.g., expressive communication) and accessing support systems (e.g., bereavement youth camps, support groups), all to promote the bereaved child’s positive adaptation the death (Biank & Werner-Lin, 2011; Howell et al., 2015; K. K. Lin et al., 2004; Sandler et al., 2003; Shapiro et al., 2012).

**Deficits in the Current Approaches**

**Counselor education.** Grief and loss are ubiquitous in nature because they encompass various aspects of the human experience besides death (e.g., normative lifecycle transitions, career change, illness, divorce, substance abuse and recovery, trauma; Horn, Crews, & Harrawood, 2013). Unfortunately, not all counselors are sufficiently trained to provide grief counseling in general (Ober, Granello, & Wheaton, 2012), let alone to individuals experiencing the complex nature of early parental death. Since grief and loss topics are not found in the Council for Accreditation of Counseling and Related Educational Programs (CACREP) standards for accreditation (CACREP, 2016), counselors may not receive any formal training in grief and loss. Generally, counselors are unfamiliar with current and empirically supported theories of grief counseling (Ober
et al., 2012). For example, counselors are usually familiar with Kubler-Ross’s (1969) stage theory of grief, which has shaped popular thinking on grief (Crunk, Burke, & Robinson, 2017) but has not been supported by empirical evidence (Maciejewski, Zhang, Block, & Prigerson, 2007). Hence, counselors may even be trained in or utilize invalidated theories (Ober et al., 2012). Therefore, counselor education on grief and loss should align with contemporary empirical research on grief, which has moved away from stage models (e.g., Kubler-Ross) and a linear, uniform process, to a more idiosyncratic and complex experience impacted by an individual’s personality, experiences, and cultural context (Center for the Advancement of Health, 2004; Crunk et al., 2017; Doughty, 2009; Horn et al., 2012; Horwitz & Wakefield, 2007; Humphrey, 2009; Prieto, 2011). More research is needed to understand these new models of grief and loss and how to incorporate modern grief and loss education into counselor education (e.g., grief and loss course, integrating into CACREP core curriculum) to better prepare counselors to obtain the critical skill of supporting clients in adjusting to loss (Horn et al., 2012).

**Positive outcomes.** Although current approaches utilize protective factors to promote resilience and successful adaptation to early parental death, consideration of the possible positive changes and personal growth of individuals following the death of a parent is lacking. A richer understanding is needed on how to facilitate personal growth from such adverse experiences. This understanding can not only equip counselors to support bereaved individuals effectively, but also help counselors shape the current approaches to grief and loss at large. Posttraumatic growth (PTG; Tedeschi & Calhoun, 1996) is a concept widely utilized to examine personal growth from traumatic events within five major domains: (a) greater appreciation of life and changed priorities; (b)
warmer, more intimate, and meaningful relationships with others; (c) increased sense of personal strength; (d) recognition of new possibilities for one’s life; (d) and spiritual development. Traumatic events such as the death of a loved one can lead to negative symptoms such as posttraumatic stress, anxiety, depression, alcohol or other substance use, externalizing symptoms, and emotional distress (Gamino & Sewell, 2004; Ickovics et al., 2006; Meyerson, Grant, Carter, & Kilmer, 2011; Milam, Ritt-Olson, & Unger, 2004; Wolchik, Coxe, Tein, Sandler, & Ayers, 2009), but individuals who experience PTG also experience lower levels of these negative and maladaptive symptoms (Michael & Cooper, 2013). Although sparse, PTG literature consistently affirms that PTG can occur for bereaved individuals (Michael & Cooper, 2013). However, few studies (e.g., Brewer & Sparkes, 2011; Hirooka, Fukahori, Akita, & Ozawa, 2017) exist on PTG exclusively related to early parental death; fewer investigate when the death occurred within the developmental period of adolescence. Although some distress or grief may be necessary to facilitate PTG (Calhoun & Tedeschi, 2001), other researchers have found that grief either inhibits growth or is unrelated to growth (e.g., Davis, Nolen-Hoeksema, & Larson, 1998; Engelkemeyer & Marwit, 2008; Gamino, Sewell, & Easterling, 2000; Talbot, 2002). To reconcile these different findings regarding the relationship between grief and PTG, more research and the examination of the relationship is needed.

Developmental perspective. Few approaches (e.g., Biank & Werner-Lin, 2011; Brent et al., 2012; Brent et al., 2015; Clark et al., 1994; Wolchik et al., 2008) consider the impact on and attainment of developmental tasks and competence, or the lifelong process of grief (i.e., youth grow in their understanding of their loss and experience grief resurgence during different developmental transitions and stages), especially in light of
the long-term impact of early parental death. Regardless, more empirical research on incorporating a development perspective into current approaches is needed. Moreover, contemporary empirical research on the general short-term and long-term developmental impact of early parental death, especially when the death occurs in adolescence, is needed to inform approaches that will utilize a developmental context.

Although a majority of parentally bereaved adolescents exhibit acute grief reactions (e.g., sleep problems, anger, irritability, behavioral problems, academic difficulties, lower self-esteem) shortly after the death (Berg et al., 2014; Feigelman, Rosen, Joiner, Silva, & Mueller, 2017; Mack, 2001; Silverman & Worden, 1992), parentally bereaved adolescents are also at risk for more severe reactions shortly after the death such as depression, suicidality, lower self-esteem, drug abuse, youth delinquency, violent crimes, and other psychosocial problems when compared to non-bereaved peers (e.g., Draper & Hancock, 2011; Feigelman et al., 2017; Raza, Adil, & Ghayas, 2008; von Sydow, Lieb, Pfister, Höfler, & Wittchen, 2002; Wilcox et al., 2010). Furthermore, they are at risk for internalizing problems (e.g., depression, suicidality), other mental health problems, and mortality risks throughout the lifespan (e.g., Downey, 2000; Finklestein, 1988; Harrison & Harrington, 2001; Heinicke, 1973; Hill & Price, 1967; Jacobs & Bovasso, 2009; Jakobsen & Christiansen, 2011; Lloyd, 1980; Mack, 2001; Schoenfelder, Sandler, Wolchik, & MacKinnon, 2011; K. R. Smith et al., 2014; Stikkelbroek et al., 2016; D. A. Taylor, 1983) when compared to their non-bereaved peers. Thus, the impact of a parental death during adolescence needs to be closely investigated due to the formative and sensitive nature of this developmental period (Blasi, 1988).
Current Study

The study addressed deficits in the current approaches. By informing current understanding and treatment modalities of grief and loss with a developmental perspective, the results of the study provide information for current professional counselors and supervisors working with individuals who have experienced early parental death, and counselor educators preparing future professional counselors to work with clients with grief and loss issues. The study addressed the lack of utilization and understanding of positive outcomes among individuals who have experienced early parental death. Understanding how to facilitate successful adaptation and personal growth from such adverse experiences may enrich treatment modalities utilized by counselors to support the bereaved. The study utilizes the concept of PTG (Tedeschi & Calhoun, 1996) to explore the potential for personal growth following a parental death.

The study specifically addressed the PTG of young adults who experienced early parental death during adolescence. This may contribute to the limited literature on the role of time in PTG, and the long-term trajectory and process of PTG. Moreover, the time transpired since the event is one way to distinguished between actual growth and perceived growth, since actual growth takes time to occur (Helgeson, Reynolds, & Tomich, 2006). Examining related variables to PTG in young adults who experienced early parent death during their adolescence may also provide insight into the process of PTG with this population. In light of the potential of PTG to decay over time (Meyerson et al., 2011; Wolchik et al., 2009), investigating related variables in a subsequent developmental stage to when the death happened may give insight into sustaining PTG throughout the lifespan. Furthermore, young adults are vulnerable to regressing to the
developmental period during which their loss occurred (Levin, 1966), experiencing a resurgence of grief that could be upsetting and confusing to a young adult as they revisit their loss with a new perspective (Knox, 2007); hence, examining correlates of PTG in young adults during this process is important as well. The PTG theoretical model (Calhoun, Cann, & Tedeschi, 2010; Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004b), which has been supported by research on the correlates of PTG (e.g., Helgeson et al., 2006; Meyerson et al., 2011; Michael & Cooper, 2013; Prati & Pietrantoni, 2009; Shakespeare-Finch & Lurie-Beck, 2014; Stanton, Bower, & Low, 2006; Vishnevsky, Cann, Calhoun, Tedeschi, & Demakis, 2010), informed the related variables investigated in this study (e.g., psychosocial development, grief, social support, religiosity/spirituality).

The study also addressed the limited research on the long-term developmental implications of parental death during the specific developmental period of adolescence. Young adulthood, with its accompanying tasks, was targeted because the effects of parental death during adolescence have a significant impact on young adults especially. As discussed, young adults are vulnerable to regressing to the developmental period when the death occurred, processing the death from a perspective not possible earlier in life, and experiencing a resurgence of grief (e.g., Knox, 2007; Levin, 1966). The study utilized Erikson’s (1963, 1968) life-span, psychosocial developmental model to investigate the developmental implications of losing a parent during adolescence and its impact on subsequent developmental periods (i.e., young adulthood). Since grief and mourning must be addressed within the context of both individual and socioenvironmental factors (Kaplow et al., 2012), the role of grief in psychosocial
development warranted investigation in this study as well. Furthermore, considering the link between inner and outer reality of an individual within Erikson’s theory (Marcia & Josselson, 2013) and how an individual’s sociocultural influences impact psychosocial development (Erikson, 1963), the role of religiosity/spirituality, social support, ethnicity, and SES in psychosocial development also merited investigation. This is imperative because culture also plays a primary role in the process of grief (e.g., how the loss is mourned; what is perceived as a loss); although bereavement is a universal experience, each culture establishes what is considered to be normal bereavement (e.g., Horwitz & Wakefield, 2007; Prieto, 2011).

Finally, PTG has been hypothesized to be either an extension of Erikson’s psychosocial lifespan developmental theory accelerated by a traumatic event, an authentic nonlinear positive change, or a combination of these factors (Eve & Kangas, 2015). Thus, this study also investigated the relationship between psychosocial development and PTG.

**Justification for an Eriksonian Framework**

Erikson’s (1982) psychosocial developmental stage theory refers to the epigenetic principle that an individual’s personality unfolds in eight predetermined psychosocial stages throughout the lifespan. The theory suggests synchrony between individual growth and social expectations; therefore, the theory is inherently psychosocial, conceptualizing the link between the inner and outer reality of an individual (Marcia & Josselson, 2013).

Erikson’s (1963) theory work is empirically based, developmentally oriented, and derived from the study of healthy, rather than pathological, personality patterns, which
are all congruent with the counseling profession and identity (Hershenson, 1982).

Erikson (1963) posited issues that must be addressed in sequence for healthy personality development to transpire. Additionally, the capacity of the individual to deal with each successive issue depends on how adequately the preceding ones have been resolved (Hershenson, 1982). Table 1 lists Erikson’s (1963, 1980, 1982) eight psychosocial stages, the approximate time span usually assigned to each stage, the successive issues (i.e., conflict/crisis) manifested during each stage, and the corresponding virtue that is obtained by successfully resolving the stage’s issue (e.g., Eve & Kangas, 2015; Hamachek, 1988, 1990).

Table 1

<table>
<thead>
<tr>
<th>Erikson’s Psychosocial Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage (Age Range)</td>
</tr>
<tr>
<td>Infancy (0 to 2 years)</td>
</tr>
<tr>
<td>Early childhood (2 to 4 years)</td>
</tr>
<tr>
<td>Play age (4 to 5 years)</td>
</tr>
<tr>
<td>School age (5 to 12 years)</td>
</tr>
<tr>
<td>Adolescence (13 to 19 years)</td>
</tr>
<tr>
<td>Early adulthood (20 to 29 years)</td>
</tr>
<tr>
<td>Adulthood (30 to 64 years)</td>
</tr>
<tr>
<td>Old age (65 years and older)</td>
</tr>
<tr>
<td>Conflict</td>
</tr>
<tr>
<td>Basic trust vs. mistrust</td>
</tr>
<tr>
<td>Autonomy vs. shame</td>
</tr>
<tr>
<td>Initiative vs. guilt</td>
</tr>
<tr>
<td>Industry vs. inferiority</td>
</tr>
<tr>
<td>Identity vs. confusion</td>
</tr>
<tr>
<td>Intimacy vs. isolation</td>
</tr>
<tr>
<td>Generativity vs. stagnation</td>
</tr>
<tr>
<td>Integrity vs. despair</td>
</tr>
<tr>
<td>Virtue</td>
</tr>
<tr>
<td>Hope</td>
</tr>
<tr>
<td>Will</td>
</tr>
<tr>
<td>Purpose</td>
</tr>
<tr>
<td>Competence</td>
</tr>
<tr>
<td>Fidelity</td>
</tr>
<tr>
<td>Love</td>
</tr>
<tr>
<td>Care</td>
</tr>
<tr>
<td>Wisdom</td>
</tr>
</tbody>
</table>

Erikson’s (1963, 1982) psychosocial theory is robust since it acknowledges change in the expression and capacity for physical, psychological, social, emotional, and intellectual functioning throughout the lifespan. Erikson (1963) built on Freudian analytic theory and Freud’s psychosexual stages (e.g., oral, anal, phallic, latency, genital) but emphasized the ego, not the id, as the driving force of development and the continuity of interpersonal experience; this goes beyond Freud’s sexual developmental progression. In other words, Erikson (1963, 1982) stated that the ego—the affective components of life and the innate, inner self—and not unconscious sexual motivations, relate to society.
Furthermore, Erikson (1963) gave equal importance to biological, psychological, and social development of an individual stating, “A human being, thus, is at all times an organism, an ego, and a member of society and is involved in all three processes of organization” (p. 32). As Marcia and Josselson (2013) stated, “Erikson’s [theory] is the most comprehensive and empirically validated theory of development” (p. 628).

Similar to Erikson’s theory, Maslow’s (1954, 1962) theory also speaks to the development of the healthy personality, positing needs (e.g., physiological, safety, love and belonging, esteem, self-actualization) that must be satisfied in sequence for healthy personality development to occur. Maslow (1962) theorized that as an individual moves up the hierarchy of needs, the individual moves from safety needs to growth needs; the capacity of the individual to deal with each successive need depends on how adequately the preceding need has been fulfilled. Hence, Maslow’s theory can be successfully integrated into Erikson’s theory to yield developmental trends individual experience throughout their lifespan and development (Hershenson, 1982).

Piaget’s (1972, 1990) cognitive development stages also occur throughout the lifespan; the first stage of cognitive development begins at birth and the last stage occurs during adolescence through adulthood. Thus, Piaget’s (1972, 1990) theory can supplement Erikson’s (1982) psychosocial stages as it speaks to the cognitive maturation that occurs throughout Erikson’s stages across the lifespan. Building on the work of Piaget, Kohlberg (1976, 1981) theorized that moral judgment is developmental and individuals proceed through the same stages of moral development. Kohlberg (1976) suggested six levels of moral development classified into three categories (e.g., pre-conventional, conventional, post-conventional). The rate of moral development varies,
and not all individuals achieve the same endpoint. Unlike Erikson’s (1982) theory, Kohlberg’s (1976, 1981) theory is not age-specific; however, Rest (1986), who also developed the Defining Issues Test to measure moral development (Rest, Thoma, Davison, Robbins, & Swanson, 1987), suggested that age might be related to moral developmental levels. Thus, Kohlberg’s (1976, 1981) theory can also supplement Erikson’s psychosocial stages. For example, Kohlberg’s (1976, 1981) conventional levels of moral development correspond to Erikson’s psychosocial development stage of late adolescence (J. G. Taylor & Baker, 2007).

Chickering’s (1969) developmental theory focuses on the overall identity development of college students, establishing seven vectors or tasks individuals must go through to develop their identity: developing competence, managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity (Chickering & Reisser, 1993). Erikson (1968, 1980) also gave particular attention to identity development. Hamachek (1988) and Marcia (1980) expounded greatly on Erikson’s work on ego identity. Thus, Chickering’s (1969) developmental model can supplement Erikson’s more broad theory and Marcia’s supplemental and related work on identity development.

Researchers have critiqued Erikson’s (1982) theory from a feminist point of view, asserting that Erikson’s progression through identity to intimacy reflected a masculine bias and did not emphasize the distinctiveness of a women’s experience (e.g., Douvan & Adelson, 1966; Gilligan, 1982; Hodgson & Fischer, 1979; Morgan & Farber, 1982). However, Horst (1995) argued that the critique of Erikson’s theory comes from a
misreading of Erikson’s work; Erikson’s concepts of identity and intimacy are not incompatible with the relational perspective important to the understanding of the experience of women. In other words, Erikson’s theory “does not ignore the significance of relationships throughout life; it weaves interpersonal and intrapersonal themes through each stage. The theory as it stands is not incompatible with, and not incapable of encompassing, the concerns raised by these critics” (Horst, 1995, p. 276).

Erikson (1963) also asserted that an individual’s environment and culture influences progress through stages. An individual advances through eight life stages to negotiate biological and sociocultural forces (Erikson, 1963, 1982). Each stage builds upon the previous stage and is characterized by a psychosocial crisis or challenge of two conflicting forces related to basic elements of society; crises also stem from the interactions of physical ontogeny, cognitive development, individual experience, and interpersonal relationships (Erikson, 1982). Moreover, each stage occurs within a social and intergenerational context; individuals need support from their environment (e.g., teachers, peers, parents) to successfully master the psychosocial crises experienced in each developmental stage.

If an individual successfully reconciles the two conflicting forces and masters the challenge of the stage, the individual emerges from the stage with the corresponding virtue, which enhances the transition to the next stage. Failure to resolve the crisis successfully can lead to continued challenges regarding that crisis (i.e., arrested development); however, the individual will move on chronologically to face the crises of the future stages as well. Erikson (1963) believed that individuals who passed through earlier stages unsuccessfully could learn to successfully meet the challenges of earlier
stages later in life; otherwise, individuals who do not successfully meet the challenges of earlier stages will continue to experience psychosocial problems related to those challenges or crises. At each stage, contributions from preceding stages, along with the opportunity to resolve the new issue, occurs; for example, the issue of trust emerges again in a new form at adolescence when identity is the main focus (Marcia & Josselson, 2013). Although less common, precocious resolution of stages-to-come can occur at each stage as well; for example, the issue of generativity can exist in a prefiguring form during adolescence, existing concurrently with the main focus of identity (Marcia & Josselson, 2013). To summarize with Marcia and Josselson’s (2013) example, during adolescence when identity is the core issue, a new trust issue to be resolved appears along with a contribution of accrued trust from preceding stages. Other issues from previous developmental stages appear in a similar fashion. Furthermore, a generativity issue, along with other future issues from subsequent developmental stages, is also present. Hence, “the presence of all developmental stages, in some form, at any one stage allows for both the remediation of past insufficiently resolved developmental issues as well as the precocious resolution of stages-to-come before their time of major ascendancy” (Marcia & Josselson, 2013, p. 618). Thus, the theory encompasses a very wide range of issues and accomplishments an individual can experience throughout the lifespan.

Lifespan developmental models take a multidimensional approach by emphasizing a biopsychosocial framework (Baltes, 1987). Additionally, some researchers have connected psychosocial development to positive adaptation and positive mental health outcomes throughout the life-span (e.g., Malone, Liu, Vaillant, Rentz, & Waldinger, 2016; Pynoss et al., 1995; Starks, Doyle, Millar, & Parsons, 2017;
Whitbourne, Sneed, & Sayer, 2009; Wilt, Cox, & McAdams, 2010), affirming Erikson’s (1963) proposition that successful resolution of psychosocial developmental stages increases an individual’s “ego strength to add to his or her repertoire of adaptive capacity” and forms “the basis for resolution of subsequent [psychosocial developmental] issues” or stages (Whitbourne et al., 2009, p. 1329). Therefore, Erikson’s theory provides a very robust and comprehensive understanding of human development that can be utilized to examine the complex experience of early parental death effectively.

**Purpose of the Study**

The purpose of this study was to examine the psychosocial developmental impact of early parental death during adolescence in young adults and to develop a predictive model of PTG using psychosocial development, religiosity/spirituality, social support, and grief for young adults who experienced the death of a parent during adolescence. The current study investigated the following research questions: (a) What is the long-term psychosocial developmental impact of parental death during adolescence in young adults?; (b) How do demographic variables (e.g., gender, SES, ethnicity, age), type of parental death, gender of deceased parent, age when death occurred, and level of closeness to the deceased impact the psychosocial development of young adults who experienced a parental death during adolescence?; (c) What is the relationship between psychosocial development, social support, religiosity/spirituality, grief levels, and PTG in young adults who experienced a parental death during adolescence?; and (d) Do psychosocial development, social support, religiosity/spirituality, and grief levels predict PTG in young adults who experienced a parental death during adolescence?
Overview of the Study

The target population for this study is young adults (20 to 24 years old) who experienced the death of a biological parent during adolescence (13 to 19 years old) in the United States. Qualtrics Panels was utilized to obtain an online sample. The sample included two groups: (a) young adults, ages 20 to 24, who experienced the death of a parent during their adolescence, ages 13 to 19 (loss group); and (b) a comparative sample of young adults who had not experienced the death of a parent (non-loss group). Participants took an online survey that included the informed consent, a demographic questionnaire, and various instruments. These instruments included: (a) Modified Erikson Psychosocial Stage Inventory (MEPSI; Darling-Fisher & Kline Leidy, 1988) to measure the strength of psychosocial developmental attributes; (b) Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) to measure social support; (c) Assessment of Spirituality and Religious Sentiments (ASPIRES; Piedmont, 2012) to measure spirituality/religiosity; (d) Texas Revised Inventory of Grief (TRIG; Faschingbauer, Zisook, & DeVaul, 1987) to measure grief levels; and (e) Posttraumatic Growth Inventory Expanded (PTGI-X; Tedeschi, Cann, Taku, Senol-Durak, & Calhoun, 2017) to measure PTG. Both loss and non-loss groups took the MEPSI, MSPSS, and ASPIRES instruments. Additionally, the loss group took the TRIG and PTGI-X scales. This was a descriptive and correlational quantitative cross-sectional study utilizing an electronic survey research methodology via Qualtrics. This study also utilized a quantitative causal-comparative design. The Statistical Package for the Social Sciences (SPSS, Version 21) was used to manage and analyze the data.
Ethical standards were maintained throughout the data gathering and analysis, and limitations will inform future research.

**Definition of Terms**

**Grief.** Grief is defined as the “emotion, generated by an experience of loss and characterized by sorrow and/or distress and the personal and interpersonal experience of loss” (Humphrey, 2009, p. 5). Mourning is the internal process of adaptation to death and/or the expressions and social rituals of grief, while bereavement, the actual loss through death, is an umbrella term that refers to the feelings of grief and the process of mourning (Osterweis, Solomon, & Green, 1984).

**Posttraumatic growth (PTG).** PTG outlines the process of psychological growth after surviving significant trauma where an individual’s basic assumptions and modes of interpreting or experiencing the world are seriously disrupted or challenged (Joseph & Linley, 2006; Tedeschi & Calhoun, 2004b; Tedeschi, Park, & Calhoun, 1998).

**Psychosocial development.** Psychosocial development, as defined by Erikson (1963, 1980, 1982) refers to the epigenetic principle that an individual’s personality unfolds in eight predetermined stages throughout the lifespan; each stage contains a unique issue or conflict that must be addressed and resolved in sequence for healthy personality development to occur, and each stage has a corresponding virtue (e.g., hope, will, purpose, competence, fidelity, love, care, wisdom) that is obtained by successfully resolving the stage’s issue.

**Religiosity.** Religiosity is the extent to which an individual is involved in and committed to practices/rituals of one’s faith group (Piedmont, 2012).
Social support. Social support is perceived or actual “instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners” (N. Lin, 1986, p. 18).

Spirituality. Spirituality is an individual’s efforts to construe a broad sense of personal meaning within an eschatological context (Piedmont, 1999, 2012)

Summary

This chapter presented the short-term and long-term maladjustment concerns related to early parental death. Current approaches to this problem were investigated while identifying deficits in the current approaches. Finally, the rationale for a study investigating the psychosocial developmental impact of early parental death during adolescence in young adults, and the relationships between PTG, psychosocial development, religiosity/spirituality, social support, and grief in this population was provided. The study will provide a deeper context of the developmental implications of losing a parent during adolescence and the PTG from such an adverse situation. The next chapter will provide a review of the literature relevant to the proposed study.
CHAPTER TWO: LITERATURE REVIEW

In this chapter, the literature on early parental death will be reviewed. The maladjustment of individuals who experience early parental death and the associated risk factors of maladjustment will be expounded on, with particular attention given to population-based studies. Additionally, the adaptive functioning of individuals who experience early parental death and the associated protective factors will be explored. Next, the current approaches informed by these risk and protective factors will be reviewed, along with implications for counselors and counselor education. The literature review will then focus on the research on the positive outcomes of adverse life events, giving particular attention to the concept of posttraumatic growth (PTG) and establishing the context for its utilization with individuals who experience early parental death. The literature review will also highlight the research on PTG and bereavement. The correlates of PTG will be reviewed, focusing on the related variables of PTG following bereavement. Moreover, this chapter will review the proposed relationship between PTG and psychosocial development, substantiating the need for its empirical investigation. Finally, the developmental implications of early parental death, especially during adolescence, will be reviewed, along with its impact on subsequent developmental stages, especially young adulthood. The application of development to the understanding of grief and loss will be considered, and the need for empirical research utilizing a developmental context will be addressed. The overall analysis of the literature on PTG
and development will provide a foundation for the proposed study.

**Maladjustment**

Early parental death, the death of a parent during childhood or adolescence, is a complex experience to research because normative grief reactions vary depending on myriad factors (Kaplow et al., 2012; Shapiro et al., 2014). Since early parental death is a very stressful and traumatic event, it has been associated with negative health outcomes throughout the affected person’s lifespan (Rostila & Saarela, 2011). Thus, previous researchers have focused on the effects of early parental death at the time of the death (Deutsch, 1937; Miller, 1972; Wolfenstein, 1966) and in the years after, when the effects of the death manifest as adult symptomatology (Beck, Sethi, & Tuthill, 1963; Brown, 1961; Fleming & Altschul, 1963; Wahl, 1954). Other researchers have (e.g., Seligman, Gleser, Rauh, & Harris, 1974) focused on the medium-term effects of early parental loss, examining childhood parental death as an etiological factor in mental health problems in adolescence.

Cerel et al. (2006) noted that parentally bereaved youth experienced distress immediately following the death; additionally, some experienced depressive symptoms and social withdrawal several years after the death. Parentally bereaved children also have academic difficulties (e.g., lower educational aspirations, lower grades), fewer plans for career development, and more difficulties at work as adults (e.g., Abdelnoor & Hollins, 2004; Berg et al., 2014; Brent et al., 2012; Cerel et al., 2006). Moreover, approximately 20% of these bereaved youth experience severe grief reactions that lead to clinically significant impairment and the development of a psychiatric disorder (Dowdney, 2000; Melhem et al., 2011); these children can exhibit a wide range of
symptoms such as anxiety, depression, angry outbursts, and regressions in developmental milestones (Dowdney, 2000).

The psychological adjustment of individuals who have experienced early parental death is commonly characterized by depressive symptoms (Dowdney, 2000). During the first years following a parent’s death, children and adolescents experience an increased risk of psychiatric problems (Cerel et al., 2006; Dowdney, 2000) and internalizing disorders (Mack, 2001), such as suicidal behavior (Agerbo et al., 2002; Gravseth et al., 2010; Hollingshaus & Smith, 2015; Niederkrotenthaler et al., 2012) and depression (Brent et al., 2009; Gray et al., 2011; Mack, 2001). Brent et al.’s (2009) study of parentally bereaved children noted the incidence of depression to be the highest within 9 months of parental death, with a continued increase for nearly 2 years after the death. Melhem and Brent (2016) concluded that the results from well-controlled studies (e.g., Kendler et al., 2002; Melhem et al., 2008) report an increased risk of depression in parentally bereaved children in both childhood and adulthood.

Past research has established the potential long-term impact of early parental loss. Jacobson and Ryder (1969) found negative relationships between early parental death and the ability to express anger, the ability to sustain intimacy, and the desire to have children as adults. Similarly, Hepworth, Ryder, and Dreyer (1984) found that individuals who experienced early parental death either exhibited avoidance of intimacy or accelerated courtship within interpersonal relationships; these individuals were found to be especially hesitant about intimate relationships when compared to the individuals who lost a parent by divorce or individuals who had not experienced parental loss. Furthermore, researchers have found an increased number of individuals who experienced early
parental death among adult alcoholics (Barry et al., 1965; Birtchnell, 1972; Oltman & Friedman, 1966), suggesting that early parental death could be associated with alcoholism among surviving children once they reach adulthood. More recently, Hamdan et al. (2013) found that adults who experienced early parental death are more likely to present with alcohol and substance-related disorders, especially men with histories of disruptive behavior disorders as adolescents. Similarly, mood and anxiety disorders (Kendler et al., 1992; Tyrka et al., 2008; Worden & Silverman, 1996), and suicidality (Gravseth et al., 2010) were more likely to be present among adults who experienced early parental death. Tebeka et al. (2016) found that among a representative sample of the United States, adults who experienced early parental death were more likely than the control group to report a poorer overall health. This can be explained by Luecken et al. (2009), who found that parentally bereaved children experienced elevated cortisol activity as adults when faced with daily stressors compared to adults who were raised by two married, cohabitating parents. Thus, early parental death may also influence physical health in later life due to stress-related illnesses (Agid et al., 1999; Krause, 1998). More recently, K. R. Smith et al. (2014) found that early parental death, especially during adolescence, has been associated with increased mortality risks after the age of 65.

Longitudinal studies also affirm the potential long-term impact of early parental loss. Worden (1996) conducted a 2-year longitudinal study that followed 70 bereaved families (125 children) and 70 non-bereaved families. The researchers conducted semi-structured interviews with children from both groups and surviving parents at 4, 12, and 24 months following the parent’s death. Within 6-12 months, about 80% of the bereaved children resumed previous levels of functioning present before the loss; however, about
21% showed serious bereavement complications (e.g., higher levels of anxiety, social withdrawal, social skills deficits, lower self-esteem, lower self-efficacy) 2 years following the loss. Moreover, the most pronounced differences were not apparent until the 2-year anniversary of the loss. Worden (1996) posited that in the year immediately following the death, family and community supports tended to reinforce family resources and coping, but this support diminished in the second year, which promoted feelings of isolation.

More recently, Brent et al. (2012) conducted a longitudinal study to examine the impact of sudden parental bereavement on subsequent developmental competencies. The researchers compared 126 youth bereaved by sudden parental death (e.g., suicide, accident, natural death) to 116 demographically similar non-bereaved peers. The participants were assessed at 9, 21, 33, and 62 months after parental death; the control group was also assessed at comparable times. Bereaved youth had lower developmental competence evidenced by diminished educational aspirations, less elaborate plans for future careers, more difficulties at work, and lower peer attachment, even after adjusting for the impact of pre-death characteristics (e.g., parental and offspring psychiatric disorder); child and parental functioning and family climate (e.g., family adaptability, family cohesion) commonly mediated these differences. Results were also unrelated to age at the time of parental death, gender of the deceased parent, or the cause of death. Brent et al. (2012) recognized that the sample had few minority participants; thus, findings may not be generalizable to minority children who lost a parent to sudden death.

**Risk Factors**

Researchers have also examined risk factors and the moderation on psychological...
adjustment during the aftermath of early parental death (Dowdney, 2000). Risk factors for developing mental health problems due to early parental death can be divided by pre- and post-bereavement risk factors (Luecken & Roubinov, 2012). Post-bereavement risk factors include poor quality of parenting, poor quality of the parent-child relationship, caregiver mental health problems, child mental health problems, low self-system beliefs (e.g., self-esteem, self-efficacy, social relatedness), low socioeconomic status (SES), and subsequent negative life events (e.g., Dowdney, 2000; Luecken & Roubinov, 2012; Thompson et al., 1998; Wolchik et al., 2006). These risk factors are also pre-bereavement risk factors, since they may already be present before the death occurs and thus may also influence psychological adjustment after a parent’s death. For example, mental health problems of adolescents before bereavement may constitute an important risk factor because stress caused by the death can exacerbate pre-existing mental health problems (Dowdney, 2000). In retrospective studies, researchers have also found that a history of depression (Gray et al., 2011; Melhem et al., 2008), sexual abuse (Melhem et al., 2008), and psychiatric disorders (Weller, Weller, Fristad, & Bowes, 1991) correlated with depression after early parental death. Other researchers have found that psychiatric disorder (e.g., bipolar disorder, alcohol and substance abuse, personality disorder) in the parent who died is also an antecedent to early parental death (Melhem et al., 2008). Perhaps improving the detection and treatment of mental health concerns (e.g., bipolar illness, substance and alcohol abuse, personality disorders) in parents can prevent early parental death in and of itself (Melhem et al., 2008). Regardless, Melhem et al. (2008) found an increased (three-fold) risk for new-onset depression and posttraumatic stress disorder (PTSD) in parentally bereaved children, even after controlling for antecedent
and concomitant risk factors.

**Type of death.** The cause of death is another important factor to examine in early parental loss. Kaplow et al. (2014) found that children who experienced a parental suicide death exhibited higher levels of posttraumatic stress and maladaptive grief when compared to children bereaved by anticipated deaths. Similarly, Appel et al. (2013) found that individuals who had lost a parent had an increased risk of hospitalization for depression, especially if the bereavement was due to parental suicide, when compared to other causes of death. Furthermore, Appel et al. found an increased risk of hospitalization for bipolar disorder after parental suicide. Wilcox et al. (2010) also found the risk of suicide increased among children whose parents died by suicide. Moreover, early parental death from external causes (i.e., substance abuse-related causes) predicted self-inflicted injuries in young adulthood (Rostila et al., 2016). Parents who died from violent causes (e.g., suicide, accidents, sudden natural deaths) had higher rates of psychiatric disorders (e.g., bipolar disorder, personality disorders) and alcohol and substance abuse themselves (e.g., Melhem et al., 2008; Nyhlen, Fridell, Backstrom, Hesse, & Krantz, 2011; Wahlbeck, Westman, Nordentoft, Gissler, & Laursen, 2011). Thus, parental psychosocial problems may have long-term negative consequences on children because of associated negative parenting and home environments (Berg et al., 2016). In other words, children who lose a parent could be at increased risk for psychopathology because of a preexisting genetic vulnerability, a non-genetic vulnerability of living with a parent with mental illness, poor adjustment in the surviving parent following the death, and other post-bereavement stressors that can affect the home environment (Berg et al., 2016; Melhem & Brent, 2016). Thus, distinguishing the
consequences of the death itself from familial/environmental and heritable circumstances (i.e., familial risk factors) is difficult. Nevertheless, children whose parents die from external and violent causes are at a significant risk in young adulthood due to the combination of familial risk factors and the death itself; therefore, they should be given priority in preventive interventions after parental death.

In general, sudden or unexpected parental deaths can also lead to complicated grief or posttraumatic stress for the bereaved (Parkes, 1998; Merlevede et al., 2004), especially if the death occurred in the presence of the child (Eth & Pynoos, 1994). Pynoos (1992) discussed how children who witness a gruesome death could suffer from recurrent intrusive images that can interfere with positive reminiscing, an essential element to positive adaptation. Due to children’s reliance on parents, parental death may be threatening to their physical and emotional well-being as well (Kaplow et al., 2012). Melhem et al. (2004) found that posttraumatic stress symptoms are common in bereaved youth. In a subsequent study, Melhem et al. (2008) found that sudden parental deaths increase the risk for depression and PTSD in the bereaved children. Similarly, Melhem et al. (2011) found that bereaved youth with complicated grief reactions are particularly at high risk for incident depression and increased functional impairment.

Expected death or death due to disease or natural causes is usually preceded by an extended time of illness where there has been time to prepare for the consequences of the death; thus, in such cases the final loss of a parent may be less disruptive and difficult to cope with (Rostila & Saarela, 2011). Berg et al. (2016) also found a discrepancy between a small increase in risk for depression in young adulthood after childhood parental death due to natural causes and a much higher risk (two- to three-fold increase) associated with
parental death due to external causes (e.g., accident, homicide, suicide). On the other hand, an investigation of parental cancer showed that a significant number of children developed psychosocial problems during the illness of their parent (Krattenmacher et al., 2012). Siegel et al. (1996) also proposed that children and adolescents usually struggle more during the terminal phase of an illness than after the death. Similarly, Cerel et al. (2006) found that youth experiencing an expected death displayed more anxiety and depression symptomology and low self-esteem during the terminal phase of illness than immediately after the death; psychosocial support may not have been in place during the terminal phase, and the community may have recognized the need for support more easily immediately after the death. Additionally, anticipated deaths may create more instances of potentially disturbing circumstances, such as witnessing medical procedures or the progressive deterioration of health (Kaplow et al., 2014). Accordingly, Kaplow et al. (2014) also found that children aged 7 years and older who experienced the anticipated death of a loved one reported significantly higher levels of posttraumatic stress and maladaptive grief than children bereaved by a sudden, natural death. Hence, a child’s adjustment after the death of a parent due to a natural cause can be variable. In conclusion, the risk differences between parental deaths from external causes and parental deaths from natural causes are possibly associated with differences in exposure to familial risk factors (Rostila et al., 2016) or the circumstances around the death, rather than the death itself (Cerel et al., 2006; Kaplow et al., 2014).

**Age.** Various researchers have also investigated the ways that the age of a child at the time of the parental death relates to maladjustment. In an examination of the risk for adult psychopathology, Jacobs and Bovasso (2009) did not find any significant
interaction between the current age of the participant and their age at the time of parental
death. In contrast, Niederkrotenthaler et al. (2012) studied the population of Swedes born
between 1973 and 1983 in a matched case-control study; the researchers found that early
parental death after age 10 increased suicide risk, but early parental death before age 10
only significantly increased suicide risk when the parental death was a suicide. However,
recent researchers have found that individuals bereaved at a younger age were more
vulnerable to affective disorders as adults when compared to individuals bereaved at an
older age (Appel et al., 2013). Berg et al. (2016) also noted the impact of the death of a
parent varied by the child’s developmental stage at the time of the death; the highest risk
was associated with parental death from any cause (e.g., natural, external) occurred prior
to 5 years of age. Finally, Rostila et al. (2016) noted the risk of self-inflicting injuries
was most prominent in both men and women who had lost their father before school age,
and among men who had lost their mother before school age.

**Gender.** As noted, Rostila et al. (2016) found that men who experienced a
parental death before school age were more vulnerable to maladaptive behaviors resulting
from maternal death due to natural causes when compared to women. Appel et al. (2013)
also found that women who lost their mother during their childhood were more
vulnerable to affective disorders as adults. However, the importance of gender of the
deceased parent and whether outcomes of early parental death differ between sons and
daughters are inconclusive overall (e.g., Brent et al., 2009; Geulayov et al., 2012). For
example, Kendler et al. (2002) found an increased risk for major depression among
individuals who had experienced early parental loss, but found no gender-related
differences in the association. Furthermore, Jacobs and Bovasso (2009) found the death
of the father during childhood more than doubled the risk for major depressive disorder in adulthood; however, the researchers did not find any significant interaction between gender of the bereaved child and the gender of the deceased parent. Gray et al. (2011) studied gender as a risk factor for depressive problems in parentally bereaved adolescents and found no association. Finally, Berg et al. (2016) found that the associated risk for depression during adulthood due to early parental death was similar for maternal and paternal deaths. Thus, further metetic investigation of the effects of gender of the deceased parent and the bereaved appears to be warranted. Perhaps, qualitative methodologies can capture the complexity of gender-related factors. Additionally, the quality of parental relationships, a risk factor discussed later in this chapter, may be more influential than the gender of the parent or the bereaved.

SES. Early parental death has been associated with a more disadvantaged socioeconomic background (Berg et al., 2014). Jacobs and Bovasso (2009) proposed that the long-term effect on adult depression in parentally bereaved children was most likely attributed to financial stresses, which may have continued for years after the death and into early adulthood, and complicated the family’s adaptation to the death. Additionally, Kaplow et al. (2010) found that childhood bereavement is often associated with other risk factors like poverty. When examining risk factors, Stikkelbroek et al. (2016) also identified low SES of the family as a pre-bereavement predictor of mental health problems after family bereavement. Early parental death can cause financial hardship (e.g., decrease or loss of income), which may lead to other negative life events (e.g., change in residence or school, loss of friends and community) and parenting difficulties (e.g., Werner-Lin et al., 2010; Wolchik et al., 2008), thus affecting the adjustment of
bereaved families.

**Parental relationships.** As noted previously, risk factors for maladjustment include poor quality of parenting and poor quality of the parent-child relationship (Dowdney, 2000; Luecken & Roubinov, 2012). Surviving caregivers can deal with a variety of stressors (e.g., financial difficulties, new partners, new household, work responsibilities, grief symptoms) that can lead to less time with the bereaved children, less support, inconsistent discipline, and a lack of reinforcement of positive behaviors (Wolchik et al., 2008). Additionally, the task over-load surviving caregivers can experience may also lead to impatient and negative interactions with the children (Wolchik et al., 2008). On the other hand, when examining the relationship with the deceased parent, Melhem et al. (2008) found that a potential risk factor is the nature of the last conversation with the deceased parent; supportive and positive conversations with the deceased were associated with a higher risk of depression. This is consistent with other studies that found the closer the relationship to the deceased, the higher the risk of depression (Brent et al., 1993).

Knowledge about risk factors present before parental death can help identify children who are at risk for developing more mental health problems after bereavement (Stikkelbroek et al., 2016). Moreover, early detection may prevent further aggravation of mental health problems or prevent unnecessary psychological treatment and psychiatric stigmatization (Stikkelbroek et al., 2016).

**Population-based Studies**

Population and registry-based studies are powerful methodologies that can examine the long-term impact of early parental death on adulthood mental health.
However, the evidence is conflicting. In two population-based studies from Sweden (Wilcox et al., 2010) and Denmark (Appel et al., 2013), childhood parental death was associated with an increased risk of hospital admission for depression in the parentally bereaved children as adults. Another population-based matched cohort study that utilized nationwide registers from 1968 to 2008 in three Scandinavian countries (i.e., Denmark, Finland, Sweden) found a relationship between childhood parental death and suicide in adulthood (Guldin et al., 2015). In contrast, a Dutch population-based, longitudinal study found no association between early parental death and increased risk of mental disorders in adulthood (e.g., depressive disorder; Stikkelbroek, Prinzie, de Graaf, Ten Have, & Cuijpers, 2012). However, the findings did not account for the cause of death, gender of the deceased parent, and age at the time of death. The abovementioned components are potential risk factors. Additionally, Stikkelbroek et al. (2012) only examined whether participants met the criteria for mental health disorders, not capturing less severe presentations of mental health problems. The results also do not explain the moderating and mediating factors of the long-term positive adaptation experienced by the participants. Thus, the researchers may have only accounted for individuals who had successfully adapted to early parental death.

More recently, Berg et al.’s (2016) Swedish population registry-based study of a national cohort born between 1973 and 1982, examined the relationship between early parental death (i.e., parental death before 18 years of age) and hospital admission and outpatient care for depression during young adulthood. The researchers found that early parental death is associated with an increased risk of long-term consequences for psychological health as evidenced by hospital admission and outpatient care for
depression during adulthood. Additionally, the risk was similar for maternal and paternal deaths. Parental death from external causes (e.g., suicide, accident, homicide) was associated with a two- to three-fold increased risk of hospital admissions for depression in young adulthood when compared with natural causes of parental death. Finally, the impact of losing a parent varied by the child’s developmental stage at the time of parental death: the highest risk was associated with losing a parent from any cause prior to the age of five.

Berg et al.’s (2016) study is a unique among registry-based study because it examined several factors that could affect the association between childhood parental death and psychiatric outcomes in adulthood. The researchers noted that children who lose a parent could be at an increased risk for psychopathology in adulthood because of a preexisting genetic vulnerability or from a vulnerability of living with a parent with mental illness. Moreover, the researchers examined how poor adjustment in the surviving parent following bereavement and other post-bereavement factors might affect the children’s caregiving environment. Berg et al. (2016) compiled data from several sources to control for previous family history of psychiatric disorder and post-bereavement factors (e.g., psychiatric disorders in the surviving parent, receiving social welfare benefits as an indicator of SES), showing that the association between early parental death and depression in adulthood is not fully explained by these factors. Receiving social welfare benefits is not a pure indicator of SES; therefore, further investigation of the SES as a factor is warranted. Additionally, Berg et al. examined hospital admissions for depression and outpatient care for depression, which covers a wider range of depression severity. However, the researchers did not examine the timing
and onset of depression after parental death, which could have potential moderators. Furthermore, the study’s findings can only be generalized to Sweden and other similar cultures, and individuals born from 1973-1982. Hence, exploration of the contemporary impact of early parent death on a variety of cultures is needed. Regardless, the study contributes to the overall literature that has clearly established the potential long-term impact of early parental loss.

**Adaptive Functioning**

After the death of a parent, 75-80% of children do not develop severe mental health problems (e.g., Cerel et al., 2006; Dowdney, 2005; Luecken & Roubinov, 2012; Worden et al., 1999), and most will return to pre-death levels of functioning within a year (Worden, 1996). To distinguish effectively between adaptive functioning and maladaptive functioning of childhood bereavement, grief and mourning must be addressed within the context of both individual and socioenvironmental factors (Kaplow et al., 2012). In light of the relationships between childhood bereavement, developmental competencies, and available resources for the children, maladjustment in bereaved youth can be seen as a problem of inadequate adaptation due to child-intrinsic and child-extrinsic factors (Pynoos et al., 1995). Thus, adaptive functioning in bereaved youth can be defined as adjusting well despite the challenges of the loss (Luthar, Cicchetti, & Becker, 2000; Masten, 2001). K. K. Lin et al. (2004) also defined adaptive functioning or resilience of bereaved children as the presence of fewer symptoms of psychopathology. Although developmental competencies are seen as an important protective factor related to adaptive functioning (Pynoos et al., 1995), few empirical studies have examined the role of development in the adaptation to early parental loss.
Protective Factors

**Expressive and self-efficacious coping.** How successfully children cope with loss-related stressors can influence their susceptibility to developing bereavement-related psychopathology (Howell et al., 2015). Avoidant coping—the suppression of thoughts or feelings related to a trauma—could increase the risk for psychiatric symptoms in youth (Shapiro et al., 2012). Relatedly, avoidant coping strategies and the suppression of emotion were found to be more prevalent among parentally bereaved youth who experience clinically significant psychopathology when compared to youth who experienced adaptive functioning after the death of a parent (Howell et al., 2015). Howell et al. (2015) also found that children in the adaptive functioning group exhibited a greater use of the coping skill of emotional expression. Similarly, Saler and Skolnick (1992) found that speaking openly about the death served a protective role against adult depression. Thus, expressive coping can be linked to positive functioning (Howell et al., 2015) as long as the emotions do not become excessively dysregulated or result in rumination (Sandler et al., 2000; Shapiro et al., 2012). Additionally, K. K. Lin et al. (2004) found that resilient children scored significantly higher on measures of coping efficacy when compared to non-resilient children. Likewise, Howell et al. (2015) found that children who positively adapted to the loss of a parent exhibited confidence in their ability to manage and cope with life stressors; the children expressed the belief that they could influence their emotional state and work through difficult emotions.

**Spiritual beliefs and religious practices.** Spiritual beliefs and religious practices can be a protective factor for youth dealing with the effects of parental loss (Howell et al., 2015). Andrews and Marotta’s (2005) qualitative study found that children used
spirituality to give meaning to their grieving process, and the child’s perception of an ongoing and personal relationship with God can be a primary component of effective coping. Children’s religiosity, as evidenced by regular attendance at religious services, could be associated with adaptive functioning; religiosity might promote a sense of community support and connection that can offer empathy, comfort, reassurance, and support to grieving children (Howell et al., 2015). Members of a religious community can also grieve along with the child, and regular attendance of religious services could help a child feel a sense of consistency and stability (Howell et al., 2015). Few researchers have investigated the role of spirituality and religiosity in the adaptive functioning in parentally bereaved; more research should be conducted to explore these factors in-depth.

**Effective caregiving.** A child’s immediate caregiving environment is frequently cited as a contributor to psychological outcomes following trauma or loss (Howell et al., 2015). The immediate caregiving environments can either facilitate or inhibit the ability for youth to engage in adaptive grief processes (Clark et al., 1994). K. K. Lin et al.’s (2004) study found that resilient children scored significantly higher on measures of caregiver warmth and caregiver mental health when compared to non-resilient children. Other researchers have also found that higher caregiver functioning was a protective factor against depression (Melhem et al., 2008; Sandler et al., 2003). More recently, Howell et al. (2015) found that the perception of surviving caregivers as empathic and comforting occurred more often by parentally bereaved children in the adaptive functioning group, since it accompanied supportive interactions that helped the bereaved children feel heard, understood, and connected to their surviving caregiver. Thus,
positive caregiver-child relationships after parental death have been associated with fewer adjustment problems in bereaved children (Sandler et al., 1988; Wolchik et al., 2006).

The surviving caregiver’s coping style could also be a protective factor for bereaved children as researchers have noted a link between caregiver coping strategies, caregiver adjustment, and caregiver parenting abilities (Howell et al., 2015). Accordingly, K. K. Lin et al. (2004) found that a supportive caregiving environment where parents provide consistent limit setting, support, warmth, and acceptance was linked to adaptive functioning in parentally bereaved youth. Thus, a high functioning and warm surviving caregiver and child-centered parenting practices (e.g., effective and open parent-child communication, placing the priority on the emotional needs of the bereaved child), along with stable, positive family routines, are protective factors (e.g., K. K. Lin et al., 2004; Saldinger et al., 2004; Sandler et al., 2003). In conclusion, several empirical studies have confirmed that effective parenting (i.e., provision of warmth, acceptance, and effective discipline) following a parental death predicts lower levels of mental health problems in children and adolescents.

**Current Treatment Modalities**

Research on risk and protective factors has informed the current approaches to providing support to parentally bereaved youth. However, most bereaved youth fall within the adaptive range of adjustment and may not need psychosocial intervention due to the absence of clinically significant psychiatric symptoms (Howell et al., 2015). Nevertheless, Berg et al. (2016) highlighted the long-lasting consequences of childhood parental death in the absence of early preventative and intervention efforts (Melhem & Brent, 2016). Therefore, given the long-term effects of childhood parental death, the
most favorable time for prevention and intervention is early on after the death with interventions that might include the treatment of complicated grief in order to prevent the onset of depression (Melhem & Brent, 2016). Additionally, clinical approaches should target bereaved children displaying early indicators of distress (Howell et al., 2015). In a meta-analysis, Currier et al. (2007) found that loss-related psychotherapies are not effective at reducing childhood grief symptoms because the interventions are applied too broadly (i.e., including children who display mild or no psychological symptoms) and are frequently initiated too late after the death to be potent. Thus, early identification and targeted, contextualized treatment approaches are necessary (Currier et al., 2007). Efforts to identify bereaved children at risk for poor long-term adjustment should include assessments that examine multiple domains of psychosocial functioning and experience—such as caregiver-child interactions and coping strategies—to identify domain-specific risk markers and foci of intervention (Howell et al., 2015). When making treatment recommendations, numerous factors, such as the child and family’s history and current environmental context, are important to examine (Howell et al., 2015). In conclusion, multiple sources of information are necessary to direct assessment and to inform treatment (Howell et al., 2015).

Few studies consider the attainment of developmental tasks. Brent et al. (2012) suggested that it is important to consider assessment and intervention focused on the attainment of developmental competency among clients who have experienced early parental death. Similarly, Biank and Werner-Lin (2011) suggested that parents be supported and educated with the understanding of the trajectories of children’s grief to prepare parents for the lifelong process of mourning that their children may experience.
Thus, services should address not only immediate needs, but also be available to youth and their families during at least the year following the death. This will support the youth as they grow in their understanding of their loss, especially during times of grief resurgence during different developmental transitions and stages (Biank & Werner-Lin, 2011). Regardless, more empirical research is needed on incorporating a developmental perspective into current approaches to providing support for parentally bereaved youth.

**The Family Bereavement Program**

As stated, the empirical research on the risk and protective factors of early parent death has informed the current approaches of providing support to parentally bereaved youth and their families. For example, the Family Bereavement Program (FBP) is a multicomponent program for parentally bereaved children and adolescents that targets empirically-supported risk factors (e.g., caregiver mental health problems, child mental health problems, distressing grief symptoms, externalizing behaviors, negative life events following the death) and protective factors (e.g., child coping skills, effective parenting) to prevent mental health problems in children and their parents (Lutzke et al., 1997; Sandler et al., 2016). The FBP is one of the few programs for parentally bereaved families to be tested in a randomized experimental trial and assessed families more than one year following the completion of the program (Currier et al., 2007; Sandler et al., 2003). The FBP is a group-based intervention that includes separate components for caregivers, children, and adolescents, and includes conjoint activities to build upon individual skills taught in each separate component. The FBP has demonstrated positive effects at short-term and long-term follow-ups, such as reductions in caregiver psychological distress, increases in effective parenting, lower levels of mental disorder in
youth, and decreased exposure to subsequent negative life events (Sandler et al., 2010; Sandler et al., 2003). Thus, the FBP has shown that increasing effective parenting practices in the short-term can lower the risk for mental health problems among parentally bereaved youth (Kwok et al., 2005). Hagan et al. (2012) also found that the FBP increased effective parenting 6 years following program completion. Additionally, Hagan et al. found that short-term changes in parenting may mediate longer-term changes in parenting because the skills caregivers learn in the program (e.g., active listening, increasing positive activities, consistent discipline practices) are reinforced by positive responses from the youth, which then can lead caregivers continuing the skills throughout subsequent developmental stages. More recently, one study on the FBP indicated a significant effect to reduce suicide ideation and attempts at the 6- and 15-year follow-up evaluations (Sandler et al., 2016).

**Other Modalities**

Stressful and traumatic experiences in childhood such as parental death can activate attachment proximity seeking; hence, the application of attachment theory is essential as the availability of a warm, positive, and affectionate attachment figure can help reduce negative emotions, re-establish normal routines, and serve as a biobehavioral regulator (Shear et al., 2007), allowing for safe exploration of the complicated emotions related to the death (Shapiro et al., 2012). Early parental death impacts relational development as early attachment models integrate expectations for abandonment or painful separation (Biank & Werner-Lin, 2011). Shear and Shair (2005) also suggested that interactions with supportive others could gently help the bereaved child think about future plans and rework models of attachment (i.e., the schemas of how future
relationships are viewed), which might ultimately reduce the level of maladaptive preoccupation with the deceased. Thus, attachment theory can be utilized to strengthen parental support and effective parenting, which are also protective factors for parentally bereaved youth.

A cognitive behavioral prevention program for youth with a high familial risk for depression reduced the incidence of depression in the bereaved youth early after the intervention; this reduction in depressive symptoms during mid-adolescence also resulted in greater developmental competency 6 years later (Brent et al., 2015). Utilizing concepts from both attachment and cognitive behavioral theory, preventive interventions that augment parent-child relationships and enhance coping skills of parentally bereaved youth have long-term beneficial effects for individuals who experience early parental death (Sandler et al., 2010). Furthermore, assisting children and families to identify belief systems, which can vary across cultures and individual families, can help them make meaning of their loss and maintain a feeling of connectedness to the deceased (Howell et al., 2015).

The loss of a social relationship such as a parental death can not only lead to less contact with friends or relatives, but also can lead to negative changes in the relationship with the surviving caregiver (i.e., surviving caregiver being less emotionally available), which can threaten a child’s sense of social relatedness. This can lead to a parentally bereaved child’s reluctance to seek support, which may hinder the ability to integrate the parental death into one’s current life and to manage high levels of grief (Wolchik et al., 2008). Furthermore, stressors from the death that are uncontrollable can reinforce beliefs that life is unpredictable and unmanageable (Raveis, Siegel, & Karus, 1999), which can
lead to low levels of coping efficacy for high levels of grief (Wolchik et al., 2008). Similarly, stressors can threaten one’s self-worth (Wolchik et al., 2008), which may maintain the intensity of grief by reducing involvement in esteem-enhancing activities (Worden, 1996); self-esteem has been found to mediate the relation between post-death stressors and internalizing and externalizing symptoms (Haine et al., 2003). Fortunately, caregiver-child relationships that have high levels of responsiveness, warmth, and consistency of discipline can promote children’s coping efficacy and belief that they have the ability to deal with uncontrollable stressors (Wolchik et al., 2008). Thus, treatment and prevention programs to manage grief over time should target the quality of the parent-child relationship, fear of abandonment, the exposure to post-death stressors, self-esteem, and coping efficacy (Haine et al., 2003; Wolchik et al., 2008). Furthermore, coping efficacy can facilitate the bereaved children’s ability to re-engage in their mastery or enhancement of developmental tasks that were disrupted by the death, reducing the intensity of their grief (Wolchik et al., 2008).

**Communication**

K. K. Lin et al. (2004) and Sandler et al. (2003) emphasized the importance of children sharing openly the range of emotions they experience after a parent’s death. Howell et al. (2015) also found that expressive communication about parental loss is linked to adaptive functioning; thus, bereaved families may benefit from group, family, or parent-child therapies that facilitate open dialogue and social support. Brewer and Sparkes (2011) found that individuals who experienced an early parental death noted how meeting others with similar experiences was one of the most important factors that helped them live with bereavement, feel less isolated, and gain a greater awareness of the shared
experience of others. To strengthen existing support systems, Howell et al. (2015) have suggested that bereaved children could benefit from organized social activities (e.g., youth camps) that focus on supporting grieving children. Support groups can also be utilized throughout the ongoing childhood grieving process to normalize experiences (Biank & Werner-Lin, 2011).

Additionally, families might benefit from training and education in communication strategies (e.g., active listening, mirroring, empathic responding) that could encourage children to explore grief-related emotions with their caregivers effectively (Howell et al., 2015). Lutz et al. (2007) noted that a parent’s ability to engage children in open and expressive dialogue about a distressing event lessens psychological consequences. Additionally, Saldinger et al. (2004) found that the surviving parent’s ability to be sensitive and attentive in communication is associated with fewer depressive and other psychiatric symptoms in the bereaved child. Shapiro et al. (2014) found that warm and engaging communication strategies by the surviving parent in discussions about the death decreased depressive and maladaptive grief symptoms of the bereaved child. Thus, clinical interventions for parentally bereaved children should focus on strategies that increase surviving parents’ use of warm, positive, and engaging communication strategies when talking about the death (Shapiro et al., 2012). Shapiro et al. (2012) also discussed how the surviving parent’s ability to express appropriate and normative levels of emotional reactivity can allow the parent to model, relate to, and elicit grief-related emotions of his or her children.

**Supporting the Surviving Caregiver**

Since effective parenting can reduce mental health problems of bereaved children
(Lutzke et al., 1997), it is important to reiterate the critical role the surviving caregiver has in facilitating grief and mourning of the bereaved child, and thus, the child’s successful adaptation (Kaplow et al., 2012). Therefore, the surviving parent’s symptoms are an important clinical concern (Shapiro et al., 2012; Tein, Sandler, Ayers, & Wolchik, 2006), since the surviving caregiver’s own grief can lead to less time with the grieving children, contributing to a deficiencies in support, consistent discipline, and reinforcement of positive behaviors (Wolchik et al., 2008). Consequently, counselors should assess and treat the surviving parent’s own psychological symptoms, which could affect his or her ability to engage in needed communication about the loss with the bereaved child (Shapiro et al., 2012). Faschingbauer (1981) noted a positive relationship between stressors and grief: grief was higher when deaths led to greater life disruption. Thus, supporting surviving caregivers as they manage increased stressors due to the death is imperative as well. Melhem et al. (2008) found that children who experience early parental death due to suicide, accident, or sudden natural death were at an increased risk for adverse outcomes (e.g., depression, PTSD) because of higher rates of psychiatric disorders in the surviving parent. Therefore, preventative efforts for the surviving caregiver are important as well.

Counselor Education

Helping clients adjust to grief and loss is a critical skill, but not all counselors are sufficiently trained or comfortable providing grief counseling (Ober et al., 2012); this may be particularly true when working with individuals experiencing the complex nature of early parental death. Furthermore, grief and loss topics are not found in the CACREP standards for accreditation (CACREP, 2016). Thus, counselors may not receive any
formal training in grief and loss despite its ubiquitous nature; grief and loss encompass various aspects of the human experience aside from death, such as normative life-cycle transitions, career change, illness, divorce, substance abuse and recovery, and trauma (Horn et al., 2013), aspects that are sometimes present in early parental death experiences. Ober et al. (2012) concluded that most counselors receive minimal or no training on grief in their graduate programs and, thus, identified grief as an area they required additional training. In Ober et al.’s (2012) own survey of licensed professional counselors (N = 369), more than half of the respondents (51.5%, n = 190) reported that they had not completed any coursework specific to grief and loss. Respondents also reported a lack of familiarity with current and empirically supported theories of grief counseling. For example, Kubler-Ross’s (1969) stage theory of grief has shaped popular thinking on grief (Crunk et al., 2017); although empirical evidence has not supported Kubler-Ross’s theory (Maciejewski et al., 2007), respondents in the Ober et al. (2012) survey identified the stage theory of grief as the model with which they were most familiar. In an earlier study, Corr (1993) suggested that research on the effectiveness of grief counseling has yielded inconsistent results in part because of counselors’ application of invalidated theories, which may conceptualize grief inaccurately. Hence, required grief and loss training might not sufficiently prepare counselors if it does not include empirically validated theories (Ober et al., 2012).

Contemporary empirical research on grief “has generated an evolution of thought on grief from a linear, uniform process to an idiosyncratic experience that can vary considerably between individuals in terms of symptom type, intensity, and duration” (Crunk et al., 2017, p. 227). In the past 20 years, the way counselors conceptualize and
treat grief has moved away from stage models (e.g., Kubler-Ross’s model) to a more individualized and complex view of the griever and the grief process (Center for the Advancement of Health, 2004; Doughty, 2009; Humphrey, 2009), informed by the griever’s personality, experiences, and cultural influences and context (e.g., Doughty, 2009; Horn et al., 2012; Humphrey, 2009). Culture also plays a primary role in the process of grief (e.g., how the loss is mourned; what is perceived as a loss; Prieto, 2011). Horwitz and Wakefield (2007) noted the importance of recognizing the cultural normality of bereavement, a universal human experience; each culture has established what it considers to be normal bereavement. The utilization of these newer models of grief and loss is especially imperative when working with the complexity of early parental death. However, Horn et al. (2012) have recommended more empirical research to further understand the newer models of grief and loss. They recommend that counselor education programs incorporate modern grief and loss education into their curriculum (through grief and loss courses) or incorporate grief and loss education into the CACREP core curriculum, better preparing professional counselors to work with grief and loss situations, including early parental death.

**Positive Outcomes**

Although researchers have established how protective factors can lead to resilience and successful adaptation to early parental loss, few have examined the possible positive changes and personal growth of individuals following the death of a parent. A richer understanding of how to facilitate personal growth from such adverse experiences can equip counselors to support bereaved individuals effectively and shape the current treatment modalities of grief and loss. Counselors can learn not only to assess
and promote the resiliency and protective factors of youth who have experienced the death of a parent, but also the personal growth that can come from such an adverse situation.

Research on the positive changes and growth that occur in the lives of adults as a result of a traumatic event (Calhoun & Tedeschi, 2006; Linley & Joseph, 2004; Michael & Cooper, 2013; Park & Helgeson, 2006) has been most frequently studied as stress-related growth, PTG, and benefit finding (Helgeson et al., 2006). Park and Helgeson (2006) reported that adults have experienced growth following a wide variety of major life stressors and traumas, including bereavement, sexual assault, combat, major illness, and divorce. In a systematic review, Linley and Joseph (2004) found a highly variable range, 3-98%, of participants reported some form of positive change after trauma (e.g., bereavement, plane crashes, shootings, cancer and other serious medical illnesses). It should be noted, the variable range may be due to the heterogeneous methods, samples, and types of growth assessed in the studies that were included in the systematic review (Eve & Kangas, 2015). Hence, researchers have focused on understanding the related variables to the positive changes and growth individuals can experience due to an adverse situation.

**Posttraumatic Growth**

PTG is a concept widely utilized to examine personal growth from traumatic events. PTG outlines the process of psychological growth after surviving significant trauma (Joseph & Linley, 2006; Tedeschi & Calhoun, 2004b) such as early parental loss, where an individual’s basic assumptions and modes of interpreting or experiencing the world are seriously disrupted or challenged (Tedeschi et al., 1998). In other words, PTG
is the positive change that individuals experience as the result of their struggle with highly stressful circumstances (Joseph & Linley, 2008b; Calhoun & Tedeschi, 1999). The concept emerged from Calhoun and Tedeschi’s (1998a, 1998b, 1999) interviews of widows several months after their husbands’ death; they found that the majority of the widows reported an increased sense of independence and self-confidence after the loss.

Tedeschi and Calhoun (1996) proposed five major domains of PTG: (a) Appreciation of Life: changed priorities or values with a greater appreciation of life; (b) Relating to Others: warmer, more compassionate, more empathetic, more intimate and meaningful relationships with others, and a better sense of who is truly dependable; (c) Personal Strength: increased sense of personal strength, ability to survive, and capacity to endure; (d) New Possibilities: recognition of new possibilities for one’s life; and (d) Spiritual Change: deepening of one's spiritual and existential life and understanding. The Posttraumatic Growth Inventory (PTGI) is commonly used to measure PTG and its five major domains (Tedeschi & Calhoun, 1996).

PTG is similar but different from resilience. Resilience refers to an individual’s ability to return to normal levels of functioning following adversity while PTG refers to transcending previous levels of functioning (Brewer & Sparkes, 2011). Bonanno (2004) defined resilience as an individual’s ability to maintain relatively stable, healthy psychological and physical functioning, as well as the capacity for generative experience and positive emotion, following a traumatic event. On the other hand, PTG is “a change in people that goes beyond an ability to resist and not be damaged by highly stressful circumstances; it involves a movement beyond pre-trauma levels of adaptation” (Tedeschi & Calhoun, 2004b, p. 4) and includes positive changes in a person’s cognition.
(i.e., self-view, worldviews). Butler et al. (2012) asserted that the difference between resilience and PTG is that resilience allows a person to return to his or her baseline level of functioning, whereas PTG occurs when individuals exceed their baseline levels of functioning; PTG is a transformative process, rather than solely an adaptation to trauma (i.e., resilience).

Researchers have has noted the potential of PTG in a variety of circumstances such as in bereaved mothers after the death of a child (Jenewin et al., 2008), patients with advanced cancer (Mystakidou, Tsilika, Parpa, Galanos, & Vlahos, 2008), women after childbirth (Sawyer & Ayers, 2009), and people with acquired brain injury (Collicutt McGrath & Linley, 2006). Researchers have also noted PTG in refugee children (Sutton, Robbin, Senior, & Sedwick, 2006) and adolescent survivors of cancer (Barakat, Alderfer, & Kazak, 2006). Milam, Ritt-Olson, Tan, Unger, and Nezami (2005) found that a multi-ethnic sample of adolescents experienced “positive appreciation of life” following the September 11 terrorist attacks in New York in 2001. Thus, PTG can occur regardless of age, ethnicity, or specific trauma experienced.

The process of posttraumatic growth. Preexisting personality characteristics (e.g., hope, optimism) and post-trauma factors (e.g., social support, coping behaviors) have been hypothesized to influence the development of PTG (Tedeschi & Calhoun, 2004a). The PTG theoretical model (Calhoun et al., 2010; Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004b) notes various factors that are likely to play a role in determining the degree an individual experiences PTG, such as the seismicity of the event (e.g., subjective impact of the event) that induces cognitive processes (e.g., intrusive
rumination, deliberate rumination), sociocultural context (e.g., cultural value, social support), and the characteristics of the individual (e.g., personality, religious beliefs).

**Seismicity of the event.** The PTG theoretical model notes that a disruptive or seismic event, if perceived as a challenge to an individual’s basic beliefs, may trigger the process of growth and create a turning point where an individual’s life narrative is divided into two components: before and after the event (Calhoun et al., 2010; Calhoun & Tedeschi, 1998b; Tedeschi & Calhoun, 2004b). The seismic event sets in motion a process of cognitive-emotional processing that involves reassessment of beliefs and goals and the reconstruction of life narratives and basic schemas (Calhoun et al., 2010; Calhoun & Tedeschi, 1998b; Tedeschi & Calhoun, 2004b). This could include the recognition of strengths, resources, and new possibilities, along with an acceptance of a changed world and wisdom reflected in a life narrative that acknowledges the complexity of the world; these changes can increase well-being and life satisfaction (Calhoun et al., 2010; Calhoun & Tedeschi, 1998b; Tedeschi & Calhoun, 2004b).

Thus, central to Tedeschi and Calhoun’s (1996) conceptualization of PTG is the role of cognitive processing; PTG occurs when an individual’s outlook on life is challenged following a traumatic life experience (Tedeschi et al., 1998), since a traumatic event can devastate an individual’s existing schemata and core beliefs (Calhoun et al., 2010). PTG is achieved when individuals overcome intrapersonal challenges and discover meaning as they rebuild and regain control of their lives (Calhoun & Tedeschi, 2006); it is not the event itself that fosters PTG, but the struggle in the wake of trauma (Tedeschi & Calhoun, 1995).

The cognitive processes in which growth takes place require distress and
automatic, involuntary (i.e., intrusive) cognitive rumination, which maintains the distress and prompts coping efforts; coping efforts include more effortful rumination (i.e., deliberate rumination), which assists in the reconciliation of the trauma with one's representational world and the creation meaning from the traumatic event (Calhoun & Tedeschi, 2006). Negative rumination may have adverse effects on psychological functioning, but it is also an important aspect in adapting to trauma (Foa, Huppert, & Cahill, 2006; Greenberg, 1995; Horowitz, 1986). In other words, rumination could start as an automatic process (i.e., intrusive rumination), but might eventually become more effortful (i.e., deliberate rumination), allowing a person to reevaluate existing schemas to make sense of the traumatic event (Taku, Cann, Tedeschi, & Calhoun, 2009). Hence, Calhoun et al. (2010) asserted that this cognitive reevaluation after the traumatic event is a precursor to PTG. Stockton, Hunt, and Joseph (2011) also found associations between deliberate rumination or repetitive cognitive processing and PTG.

In summary, traumatic events greatly challenge an individual’s schemas regarding themselves, others, their relationships, core beliefs, and the world, by shattering their assumptions about these things; the event forces a reconfiguration of goals, beliefs, and worldview that can lead to PTG (e.g., Calhoun et al., 2010; Calhoun & Tedeschi, 1998b, 1999; Tedeschi & Calhoun, 1995, 2004b). Posttraumatic cognitive activity (i.e., rumination, schema reconfiguration) may also be influenced by environmental factors (e.g., severity of the event, time since trauma, exposure to other stressful experiences) and by social processes (e.g., social support can provide comfort and frameworks for making sense of the traumatic experience; Meyerson et al., 2011), which is discussed later in this chapter. Tedeschi and Calhoun (1996, 2004b) have proposed that a person
needs time to recover and cognitively process a traumatic event. However, this timeframe is not clearly delineated (Eve & Kangas, 2015).

Calhoun, Cann, Tedeschi, and McMillan (2000) evaluated 54 young adults who had experienced a traumatic event within the past three years; stronger relationships were found between PTG and event-related deliberate rumination within two weeks of the event than current event-related deliberate rumination (beyond two weeks). Although this finding suggests that early deliberate rumination about the traumatic event is related to greater levels of PTG than later deliberate rumination, the study was a cross-sectional, correlational design and findings should be interpreted cautiously (Eve & Kangas, 2015). Additionally, temporary amnesia or impaired memory, a phenomenon of trauma (van der Kolk, 1996), may influence an individual’s insight into their cognitive processing at the time of their trauma (Eve & Kangas, 2015). Cognitive processing is needed in adapting to trauma (Greenberg, 1995; Horowitz, 1986), but is not exclusively associated with PTG; cognitive processing occurs during the recovery from trauma, regardless of the presence of PTG (Eve & Kangas, 2015). Thus, it is unclear what leads some individuals to adapt to trauma, while others grow from trauma (Eve & Kangas, 2015).

**Sociocultural context.** The cognitive-emotional processing of PTG involves self-analysis and self-disclosure in a social context; thus, the amount of PTG is related to the amount of support provided, positive models of change, and cultural themes that are congruent with the change (Calhoun et al., 2010; Calhoun & Tedeschi, 1998b; Tedeschi & Calhoun, 2004b). PTG is conceptualized as a universal phenomenon that may have cultural variations or culture-specific manifestations (Calhoun et al., 2010; Weiss & Berger, 2010a). For example, Taku (2010) asserted that in Japanese culture, PTG
regarding the dimension of self might be expressed as increased recognition of personal weaknesses, whereas Westerners may experience this type of growth as increased recognition of personal strengths. Thus, the individual’s sociocultural context influences the development of PTG (Calhoun et al., 2010). The PTG model also differentiates between a distal aspect of the contextual influence (i.e., broad cultural themes and values) and a proximate aspect (i.e., contact with people who may offer social support or serve as role models; Calhoun et al., 2010).

**Distal sociocultural influence.** The PTG model asserts that cultural values and beliefs affect an individual’s struggle with traumatic events, such as what event is perceived as stressful, which events are likely to be experienced, how an individual copes with a traumatic event, and how an individual is transformed by the struggle with the traumatic event (Weiss & Berger, 2010b). For instance, sociocultural influences could affect the likelihood individuals will engage in cognitive rumination about religious or spiritual topics in the struggle with the stressful or traumatic event; these individuals may then report PTG on the spiritual change dimension (Calhoun et al., 2010). For example, in predominantly atheistic cultures (e.g., Australia, East Germany, Netherlands), individuals are less likely to use religious coping in processing trauma and report less PTG on the spiritual or religious dimension of the PTGI (e.g., Shakespeare-Finch & Morris, 2010; Weiss & Berger, 2010b).

**Proximate sociocultural influence.** The PTG model also asserts that PTG is related to an individual’s interactions with the people in an immediate social environment (Calhoun et al., 2010). Calhoun et al. (2010) noted that individuals affected by trauma desire self-disclosure and dialogue; thus, PTG is related to the degree the proximate
social context is responsive in providing emotional support for affect regulation and role modeling of schema change. Empirical evidence has affirmed that social support (e.g., emotional comfort, the modeling of growth from adversity) is a correlate of PTG across the cultures of the world (Weiss & Berger, 2010b).

**Individual characteristics.** The PTG model notes that pre-trauma personal characteristics influence the degree to which individuals can develop PTG (Calhoun et al., 2010). For example, the degree of openness to life experiences can affect the likelihood of engaging in the cognitive-emotional processing that produces PTG (Calhoun & Tedeschi, 1998b, 2006). Other personal qualities and coping styles associated with PTG, within the context of various events and cultures, include optimism, active coping, and spiritual coping (Calhoun & Tedeschi, 2006; Weiss & Berger, 2010b).

Age and gender are not theoretically linked to PTG. In fact, some empirical findings regarding the connection between PTG and older age are inconsistent; however, there is some empirical evidence that women tend to experience more PTG (Weiss, 2014). A more in-depth review of the literature regarding age and gender is conducted later in this chapter (see Correlates of PTG). Additionally, researchers have studied SES, education, and occupation as correlates of PTG in various sociocultural contexts, but results have been mixed due to confounding variables such as ethnicity and the use of spiritual coping (Weiss & Berger, 2010a, 2010b).

**Correlates of PTG**

Helgeson et al.’s (2006) meta-analysis of research on PTG in adults examined correlates of PTG. The review included 87 cross-sectional studies that examined stressful events such as health problems (e.g., heart disease, cancer), war/terrorism (e.g.,
September 11 attacks), bereavement, and sexual assault/abuse. The exclusion of intervention and longitudinal events weakens in-depth analyses and causal conclusions. The researchers examined the relationships between PTG, psychological and physical health, demographics, stressors, personality, and coping. PTG was related to less depression and more positive well-being. PTG also was positively related to objective severity of the stressor, subjective perceptions of stress associated with the event, and greater intrusive and avoidant thoughts about the stressor; more severe events and greater perceived stress were associated with more PTG. Furthermore, PTG was positively related to religiosity, higher levels of positive affect, optimism, and the coping strategies of positive reappraisal, acceptance, and denial. Finally, PTG was found to correlate with age, gender, and ethnicity, with younger participants reporting more PTG than older participants, women reporting more PTG than men, and ethnic minorities reporting more PTG than majority culture counterparts. Moderator analyses showed that relationships between PTG and outcomes were affected by the amount of time that had passed since the event/stressor and the racial composition of the sample. However, moderator analyses were based on a small number of studies. Regardless, the meta-analysis revealed that PTG measures are more likely to be related to better mental health when some time has transpired since the initial event; one way to distinguish between actual growth and perceived growth would be to take into consideration the time that had passed since the event, since actual growth could take some time to occur (Helgeson et al., 2006).

Subsequent meta-analyses revealed similar results. Prati and Pietrantoni (2009) conducted a meta-analysis of 103 studies of PTG; they found that optimism, social
support, spirituality, acceptance coping, reappraisal coping, and religious coping were
associated with PTG among adults. They also found that age and gender were significant
moderators of the relationship between coping and PTG, with religious coping being
more beneficial for women and older individuals. Vishnevsky et al. (2010) also
conducted a meta-analysis of 70 studies that examined gender differences in PTG; they
found females reported more PTG than males (effect size was small to moderate) and that
PTG scores among females increased with age. Although these three meta-analyses
revealed a positive relationship between PTG and age (e.g., Helgeson et al., 2006; Prati &
Pietrantoni, 2009; Vishnevsky et al., 2010), when Stanton et al. (2006) reviewed the
connection between age and PTG among cancer survivors, they found that most studies
in their meta-analysis reported non-significant relationships between age and PTG. In
fact, several researchers even discovered an inverse relationship. Moreover, other factors
such as the type of traumatic event may also influence the correlate of age (Stanton et al.,
2006); thus, more investigation into the correlate of age and other general correlates of
PTG is needed.

Overall, these meta-analyses highlight the relationships between PTG and (a)
trauma severity, exposure to other stressful experiences, time since trauma, and other
environmental factors; (b) distress responses such as perceived stress, PTSD, depressive
symptoms, and intrusive cognitions; (c) social processes such as social support (e.g.,
religious involvement); (d) psychological processes (e.g., rumination, positive
reappraisal, acceptance); and (e) positive outcomes (e.g., reduced depression, positive
affect), with females and racial and ethnic minority individuals reporting higher levels of
PTG (e.g., Helgeson et al., 2006; Meyerson et al., 2011; Prati & Pietrantoni, 2009;
More recently, Shakespeare-Finch and Lurie-Beck (2014) conducted a meta-analysis to examine the strength and linearity of the relationship between symptoms of PTSD and PTG. They reviewed 42 studies and found a significant, linear, positive relationship between PTG and PTSD symptoms, as well as a significantly stronger curvilinear relationship (i.e., inverted “U” relationship). This finding affirmed the need for a traumatic event to be seismic in nature to cause enough distress for the PTG process to occur, but not distressing enough that the processes of PTG are overwhelmed and halted (see Calhoun & Tedeschi, 1998b). Thus, traumatized individuals might experience both positive and negative outcomes concurrently and a focus only on PTSD symptoms could limit recovery and hinder the potential for positive growth from the adverse event (Shakespeare-Finch & Lurie-Beck, 2014).

**Correlates of PTG in youth.** Among studies that have examined PTG in adolescents, severity of the stressor has also been positively related to PTG (Barakat et al., 2006; Ickovics et al., 2006). Additionally, lower levels of emotional distress (Ickovics et al., 2006), anxiety (Milam et al., 2005), and substance use (Milam et al., 2004; Milam et al., 2005) have been associated with PTG. On the other hand, depression as a correlate of PTG in adolescents is inconclusive; lower depressive symptoms have been shown to correlate with PTG in one study (Milam et al., 2005) but not in another study (Milam et al., 2004). Moreover, researchers who examined the relationship between PTG and gender and ethnicity in adolescent samples have found non-significant correlations between PTG and gender (Ickovics et al., 2006; Milam et al., 2004; Oltjenbruns, 1991) and between PTG and ethnicity (Milam et al., 2004; Oltjenbruns,
1991). Ickovics et al. (2006) conducted a quantitative study on female adolescents to determine how the type and time of events related to profiles of PTG, and to examine the effects of event type and PTG on short- and long-term emotional distress, controlling for pre-event distress. The type of event was related to profiles of PTG, but not with the subsequent emotional distress; when baseline emotional distress was controlled, PTG was associated with reductions in short-term and long-term emotional distress. Meyerson et al. (2011) conducted a systematic review of 25 studies of PTG among children and adolescents to establish the factors that explain the relationship between traumatic events and PTG among youth. They found positive relationships between PTG and (a) subjective stress/psychological distress, (b) social support/religious involvement, (c) coping, and (d) positive outcomes. The authors also found evidence that PTG in youth might decay more quickly over time when compared to PTG in adults. Additionally, the meta-analysis affirmed the research on adults that suggested an inverted “U” curvilinear relation between PTG and age, trauma severity, and PTSD; growth experiences were optimal during late adolescence and young adulthood when trauma severity and posttraumatic stress were moderate. Furthermore, Meyerson et al. (2011) found that the gender differences (i.e., females reporting more PTG than males) that appear in adult populations may not emerge until adolescence and young adulthood. Due to the limited number of studies included in this meta-analysis, further research is needed.

Overall, the studies conducted on the correlates of PTG in adults and youth have confirmed the proposed PTG theoretical model (Calhoun et al., 2010; Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004b). Moreover, many of the correlates are also protective factors for parentally bereaved youth. More research is needed to examine the
process of PTG in individuals who have experienced early parental death.

**PTG and Bereavement**

Research on bereavement suggests that the death of a loved one can challenge the validity of an individual’s core beliefs (Michael & Cooper, 2013). Viewed from a constructivist perspective, bereavement is a process of reconstructing a world of meaning that has been challenged by loss (Neimeyer, Burke, Mackay, & Van Dyke Stringer, 2009). Individuals can resolve the incongruence that follows the death of a loved one by engaging in meaning-making processes (Michael & Cooper, 2013), which is similar to the cognitive processes involved in PTG. When bereaved individuals are successful in finding meaning, they adapt better than their counterparts who struggle to make sense of the experience; bereaved individuals who exhibit normative grief reactions are successful at engaging in meaning-making and able to assimilate to the death, while failure in making meaning is associated with complicated grief reactions (Michael & Cooper, 2013; Neimeyer, 2006).

Although traumatic events such as the death of a loved one can lead to negative psychological symptoms such as posttraumatic stress, anxiety and depression (Meyerson et al., 2011), alcohol or other substance use (Milam et al., 2004), externalizing symptoms (Wolchik et al., 2009), and emotional distress (Gamino & Sewell, 2004; Ickovics et al., 2006), individuals who experience PTG also experience lower levels of these negative symptoms (Michael & Cooper, 2013). Calhoun and Tedeschi (2001) suggested that some distress or grief might be a necessary reminder for bereaved individuals and facilitate the recognition of growth outcomes. On the other hand, Talbot (2002) suggested that significant distress or grief inhibits growth or is unrelated to growth. Researchers who
study bereavement have often found a negative relationship between distress—or grief, a typical measure of distress in bereavement studies (Engelkemeyer & Marwit, 2008)—and positive outcomes (e.g., Davis et al., 1998; Gamino et al., 2000). To reconcile the different findings regarding the relationship between grief and PTG, more research and the examination of a possible inverted-U-shaped relationship is needed. An inverted-U-shaped relationship would be congruent with analyses of the relationship between stress and PTG in other types of adverse events as discussed previously.

When examining the research on the positive changes or growth (i.e., PTG) that can occur as a result of bereavement, various researchers suggest that bereaved individuals report positive self-transformation regarding their self-concept as part of their struggle to cope with the death (Michael & Cooper, 2013). Changes of priorities in life were reported across the studies as well (Michael & Cooper, 2013). Notably, individuals tended to reappraise relationships with family members (e.g., spouse, parents, siblings) and close friends, which often led to improved, closer, and more open relationships (Hogan, Morse & Tason, 1996; Lieberman, 1996; Malinak, Hoyt, & Patterson, 1979; Parappully, Rosenbaum, Van den Deale, & Nzewi, 2002). Researchers consistently found that individuals started living life more fully, feeling wiser, accepting life’s paradoxes more readily, developing more maturity, having enhanced self-esteem, being more spiritual and religious, and had heightened existential awareness (Calhoun & Tedeschi, 1998b; Oltjenbruns, 1991; Parappully et al., 2002; Talbot, 1998). Thus, the PTG literature related to the experience of bereaved individuals consistently affirms that various forms of positive growth can occur for bereaved individuals (Michael & Cooper, 2013).
**Literature review of PTG and bereavement.** Research on positive outcomes (e.g., PTG) that can occur as a result of bereavement is sparse (Michael & Cooper, 2013). In a qualitative study, Malinak et al. (1979) explored adults’ responses to the death of a parent and found that, after struggling with the death of a parent, the bereaved adults felt an increased appreciation toward their lives and families. Similarly, Matthews (1991) used qualitative methods to explore the experiences of 26 widows after the loss of their spouse; the majority of the widows revealed that they were more independent, thoughtful, decisive, and appreciative after the loss. In a longitudinal, qualitative study, Lieberman (1996) examined the experiences of widows and found that one-third of the widows clearly displayed PTG, especially interpersonal change, as a result of their bereavement; participants reported being more compassionate, tolerant, patient, empathic, and courageous. Additionally, participants started to discover new strengths and talents, trying out new things and making an effort to live in the present and not postpone things (Lieberman, 1996).

Hogan et al. (1996) conducted a grounded theory study of a heterogeneous group of bereaved people; participants in the study described their personal growth in the grief trajectory as a process of evaluating their lives as more meaningful. The researchers also found that the participants experienced changes in priorities, which led to more fulfillment and pleasure in everyday life. Talbot (1998) explored the impact of loss on human development and investigated factors associated with the changes in personal identity that participants experienced. Four common factors were found among participants who experienced PTG: (a) resolving a spiritual crisis brought about by the loss; (b) making a conscious decision to survive; (c) helping others by volunteering or
working in a helping profession; and (d) integrating the experience of loss with a new, more compassionate identity. Polatinsky and Esprey (2000) conducted a quantitative study to explore whether bereaved parents were able to experience growth as a result of the loss of a child as well as correlates of PTG; the researchers affirmed the potential for PTG in this population. Parappully et al. (2002) conducted a qualitative study that examined the transformative experiences of parents who lost a child to murder; the parents reported that the event was a catalyst for emotional growth and growth in relation to self as they became more self-confident, self-reliant, compassionate, and caring, and found strength within themselves that they never imagined. The parents also gained a greater appreciation of life and strengthened their relationships, especially marital relationships. Furthermore, the parents also disclosed that the trauma helped them reframe previous traumatic experiences and find meaning and value in them. After the loss, they had also strengthened their religiosity/spirituality and relationships, particularly marital relationships (Parappully et al., 2002).

Hogan and Schmidt (2002) conducted a qualitative study to explore the experiences of bereaved individuals following the death of a loved one. Participants in the study described personal growth as becoming more caring and connected to others, reassigning priorities, and seeing their lives as more meaningful. More recently, Krosch and Shakespeare-Finch (2017) found PTG (as measured by the PTGI) among women who experienced a miscarriage or stillbirth, and Genest, Moore, and Nowicke (2017) affirmed the potential for PTG among individuals bereaved by suicide.

**PTG and bereavement in children and adolescents.** In a qualitative study, Oltjenbruns’ (1991) examined the positive outcomes of late adolescents who experienced
the death of a family member or friend and found that more than half of the participants reported experiencing deeper appreciation of life, greater caring for loved ones, strengthened emotional bonds with others, and increased emotional strength as a result of the grief experience. Additionally, participants reported better communication skills as a result of their bereavement. Brewer and Sparkes (2011) explored the positive changes and themes of PTG in young adults who had experienced an early parental death; themes included having a positive outlook, gratitude, appreciation of life, living life to the fullest, and altruism. More recently, researchers have found that parentally bereaved adolescents in Japan experience PTG (Hirooka et al., 2017).

Although research exists on PTG and bereavement, few researchers have focused exclusively on PTG after early parental death, and even fewer have investigated when the death occurred within the developmental period of adolescence. Thus, more investigation is needed on the PTG of individuals, especially adolescents, who have experienced early parental death. The long-term trajectory of PTG for individuals who have experienced early parental death is also warranted.

**Correlates of PTG Following Bereavement**

When generally examining correlates of PTG, psychosocial variables (e.g., education, income, psychopathology) have inconsistent associations with PTG (Linley & Joseph, 2004). However, cognitive processes (e.g., controllability appraisal, acceptance, positive reinterpretation, optimism, positive affect) have been consistently associated with PTG (Linley & Joseph, 2004). The following is a review of the correlates of PTG following bereavement. Although there are consistent findings that demonstrate that cognitive processes are associated with PTG following bereavement, literature regarding
psychosocial variables as mediators or moderators of PTG is mixed.

**Demographic variables.** This section reviews the literature on the demographic (e.g., age, gender, ethnicity) correlates of PTG following bereavement, highlighting the inconsistent associations found by researchers.

**Age.** The literature is inconclusive regarding the relationship between age of the bereaved and PTG. Some researchers have found a negative relationship between age and PTG (Polatinsky & Esprey, 2000; Wolchik et al., 2009). However, Milam et al. (2004) found that older bereaved individuals experienced more PTG than younger individuals and attributed this to cognitive maturity needed to find benefits of a negative event. Helgeson et al.’s (2006) general meta-analysis of PTG in various types of adverse events showed that younger individuals reported more growth than older individuals, while Vishnevsky et al.’s (2010) general meta-analysis showed that PTG scores among females increased with age. Meyerson et al.’s (2011) general meta-analysis of PTG among youth was variable, with some studies showing a positive relationship between age and PTG, while others showed a negative relationship or no relationship at all.

**Gender.** The literature is also inconclusive regarding the relationship of the gender of the bereaved and PTG. Researchers examining the relationship between PTG and gender in adolescents found non-significant relationships (Ickovics et al., 2006; Milam et al., 2004; Oltjenbruns, 1991; Wolchik et al., 2009). Polatinsky and Esprey (2000) also found a non-significant relationship, but found a significant trend for married participants to score higher on the PTGI. However, general meta-analysis examining PTG in adults and youth, which included studies on bereavement, found that females reported greater PTG than males (e.g., Helgeson et al., 2006; Meyerson et al., 2011;
Ethnicity. The literature is also inconclusive regarding the relationship of the ethnicity of the bereaved and PTG. Milam et al. (2004) and Oltjenbruns (1991) explored ethnicity as a predictor of positive growth following bereavement; in both studies, researchers found a non-significant relationship. In contrast, general meta-analyses on PTG of adult and youth who experienced a wide variety of stressors/events including bereavement found that minorities reported greater growth than non-minorities (Helgeson et al., 2006; Meyerson et al., 2011).

Other factors. This section reviews the literature on other psychosocial correlates of PTG following bereavement, focusing on factors related to the death (e.g., time since death, distress responses), along with factors related to the bereaved individual and his or her environment (e.g., religion and spirituality, social support).

Time since death. Wolchik et al. (2009), in a longitudinal study of 50 adolescents and young adults who had experienced parental death in childhood or adolescence, found that the time since death was negatively related to two main domains of PTG (i.e., appreciation of life and relating to others). Meyerson et al. (2011) also found evidence that PTG in youth may decay over time more quickly when compared to adults. However, few researchers have successfully examined the role of time since death in relation to PTG due to methodological challenges (Michael & Cooper, 2013).

Distress responses. As already noted, Calhoun and Tedeschi (2001) suggested that some distress or grief might be a necessary for PTG to occur, while Talbot (2002) suggested that significant distress or grief can either inhibit PTG or is unrelated to PTG. Overall, bereavement researchers have found a negative relationship between distress or
grief and PTG (e.g., Davis et al., 1998; Gamino et al., 2000). More recently, Taku, Tedeschi, and Cann (2015) examined PTG and its associations with stress responses in Japanese undergraduate students who reported their loss of loved ones as the most traumatic experience within the past five years. They found that the PTG domains of relating to others and the combined domain of spiritual change and appreciation of life showed an inverted-U-shaped relationship with stress responses, while linear relationships were found in the personal strength and new possibilities domains. Hence, a certain level of stress response may be crucial for experiencing PTG, but the relationship can vary across PTG domains (Taku et al., 2015). More research is needed to examine the relationship between stress or grief and PTG.

**Religion and spirituality.** Researchers have found that traumatic experiences can lead to a deepening of religion and/or spirituality (Milam et al., 2004; Shaw, Joseph, & Linley, 2005). Positive religious coping, religious participation, religious openness, and intrinsic religiousness are also associated with PTG (Milam et al., 2004; Shaw et al., 2005). Thus, religion and spirituality might be beneficial to people in dealing with the aftermath of trauma or stressful circumstances such as bereavement (Michael & Cooper, 2013).

**Social support.** In Aguirre’s (2008) quantitative dissertation study, the researcher found that social support was a significant predictor of PTG for those who lost a loved one, accounting for 35% of the variance. Thus, an individual’s social system plays an important role in the process of growth after bereavement (Aguirre, 2008). Wolchik et al. (2009) also found that parental support for bereaved adolescents was significantly correlated with almost all domains of PTGI (i.e., relating to others, new possibilities,
personal strength), and that support from adults, in general, was significantly associated with the relating to others and new possibilities domains of PTGI. However, peer and sibling support did not significantly correlate with PTG. Wolchik et al. (2009) proposed that since the participants suffered the death of a parent, they might have only sought out support from the surviving parent and other adult relatives. More recently, Wolfe and Ray (2015) found social support to be a positive predictor of PTG among adults exposed to various traumatic events. Extant literature suggests that adaptive coping efforts, such as seeking support from a surviving caregiver, can promote constructive information processing, altering schemas and leading to PTG (Michael & Cooper, 2013).

**Cognitive coping mechanisms.** Research is consistent regarding the relationship between PTG following bereavement and the use of cognitive mechanisms (Michael & Cooper, 2013). Active cognitive mechanisms (e.g., meaning-making, benefit-finding, reattributio, positive re-appraisal) are significant predictors of PTG (e.g., Aguirre, 2008; Calhoun et al., 2000; Wolchik et al., 2009). Aguirre (2008) examined the relationship between cognitive processes and PTG following bereavement; findings were consistent with other literature, in that cognitive coping processes characterized by active engagement played a critical role in the processes of adjustment and PTG. Calhoun and Tedeschi (1998a) suggested that more deliberative rumination leads to more PTG; Calhoun et al. (2000) confirmed this, finding that intrusive rumination was not related to PTG, but non-intrusive or deliberate rumination soon after the death was associated with PTG. Calhoun et al. (2000) found that the different domains of the PTGI were related to cognitive processing. Personal strength was related to rumination soon after the deaths, and all domains except personal strength were related to attempts to make meaning of
what happened soon after the deaths. Additionally, appreciation of life and new possibilities were significantly related to recent attempts at positive reappraisal and benefit finding. Wolchik et al. (2009) found that using positive cognitive restructuring and problem-solving increased the ease of engaging in new opportunities and, therefore, PTG after loss. Parappully et al. (2002) found that all participants in their study engaged in cognitive-emotional processing in order to cope with and transform their traumatic experience; processes included accepting the tragedy as a reality, finding meaning in the tragedy, and making a personal decision not to allow the tragedy to ruin their lives. Thus, different aspects of PTG may be particularly sensitive to different types of cognitive processes at different periods of time after the death (Michael & Cooper, 2013).

The literature is consistent regarding the relationship of meaning-making and PTG following bereavement (Michael & Cooper, 2013): meaning-making after the loss of a loved one is crucial for PTG to occur (Aguirre, 2008; Davis, Wohl, & Verberg, 2007; Gamino, Hogan, & Sewell, 2002; Gamino & Sewell, 2004; Gamino et al., 2000; Parappully et al., 2002; Parkes, 1998; Parkes & Weiss, 1983; Tedeschi & Calhoun, 1995). Aguirre (2008) found that meaning-making can lead to existential awareness, finding purpose in life, and establishing new goals and purpose. Meaning-making has also been associated with lower levels of negative grief feelings (e.g., despair, blame, anger, panic, detachment; Michael & Cooper, 2013).

**Correlates of PTG following bereavement in adolescence.** Otljenbruns (1991) examined the relationship between positive outcomes and gender and ethnicity in adolescent samples; Otljenbruns found non-significant correlations between the positive outcomes and gender and between positive outcomes and ethnicity. However, it is
important to note that the study only included Mexican-Americans and Anglo-Americans, and only 28% of the participants were male.

Milam et al. (2004) conducted quantitative research to examine the relationship between PTG and variables such as socio-demographics, substance use, religiosity, and depression; age and religiosity were positively associated with PTG, and substance use was negatively correlated with PTG. This finding suggests that older individuals benefiting from the coping resources of religion (e.g., social support, religious coping) may experience more PTG when compared to individuals who utilize potential negative coping resources (e.g., substance use). Controlling for pre-event distress, Ickovics et al. (2006) conducted a quantitative study of female adolescents to determine how the type and time of events relate to profiles of PTG and to examine the effects of event type and PTG on short- and long-term emotional distress. The type of event was related to the various domains of PTG but not with the subsequent emotional distress; when baseline emotional distress was controlled, PTG was associated with reductions in short-term and long-term emotional distress.

Writing in 2006, Helgeson et al. noted that most general research on correlates of PTG had been cross-sectional studies up to that time. Wolchik et al.’s (2009) study was the first to use a longitudinal design to examine predictors of PTG in adolescents and young adults who had experienced early parental death; longitudinal relations were examined between baseline measures of predictor variables and measures of PTG 6 years later. Variables assessed included demographics, intrusive grief-related thoughts, appraisals, mental health problems, social adaptation outcomes, intrapersonal coping processes, interpersonal coping processes, and the PTG subscales. Intrapersonal coping
processes explained a moderate amount of variance in the New Possibilities and Personal Strength domains; interpersonal coping processes explained a moderate amount of variance in Personal Strength, New Possibilities, and Relating to Others domains. Controlling for time since death, threat appraisals, active coping, avoidant coping, seeking support from parents or guardians, seeking support from other adults, internalizing problems, and externalizing problems were significant predictors of PTG. The temporal precedence between the predictor variables and outcomes of PTG allows for stronger inferences about factors that may influence PTG (Wolchik et al., 2009). However, the sample was small and only included families with two or more children who participated in the assessments; thus, there was not sufficient power to detect small effects and generalizability was limited (Wolchik et al., 2009). Furthermore, the small sample size inhibited the examination of whether the relationships between the predictor variables and PTG might differ as a function of ethnicity or gender (Wolchik et al., 2009). Additionally, a baseline measure of PTG was not utilized (Wolchik et al., 2009). The participants also participated in a preventive intervention for parentally bereaved children, which could have influenced the PTG outcomes. The study adds to the limited research on PTG correlates of bereaved adolescents and young adults. However, further investigation of predictor variables is needed to explore and establish the research on predictor variables of PTG in bereaved adolescents and young adults.

**PTG and Development**

An explicit developmental perspective is missing from the theoretical conceptualization of PTG (Aldwin & Levenson, 2004). Specifically, literature considering the PTG phenomenon in relation to psychosocial and cognitive
developmental is scarce (Eve & Kangas, 2015). Aldwin and Levenson (2004) argued that non-traumatic stressors and positive events might also promote development and growth in adulthood. Additionally, the PTG model does not directly address whether growth from struggle with intense psychological pain and loss is developmentally normative or qualitatively different from personality development throughout the lifespan (Weiss, 2014). Joseph and Linley (2008c) stated that the PTG researchers have often characterized PTG as different from personality development throughout the lifespan. On the other hand, Joseph and Linley (2008c) explicitly theorized that PTG is about normal personality development at the individual level; they also emphasized that people might encounter traumatic events throughout their lifespan and that the stress and positive changes from these events are natural aspects of human development, rather than dichotomous concepts related to pathology and health. In other words, they have adopted a Rogerian stance (Rogers, 1957, 1961) when conceptualizing PTG: people are intrinsically motivated to grow and can make choices that lead to the actualization of one’s potential. Joseph and Linley (2008c) stated that trauma-related processes (or PTG) might, to some extent, “be continuations or amplifications of more normative lifespan developmental trajectories” (p. 341). Similarly, Weiss (2014) stated that it would be more productive to conceptualize PTG as going beyond Joseph and Linley’s (2008a) self-actualization conceptualization of PTG to include the culmination in self-transcendence, the last level added by Maslow (1971) in his later life and also affirmed by Viktor Frankl (2000). Accelerated by traumatic events beyond the expected crises in a particular developmental stage, PTG would promote the actualization of human potential to move toward self-transcendence as a developmental trajectory.
Although researchers have demonstrated PTG following traumatic events (e.g., Shakespeare-Finch & Barrington, 2012; Tedeschi & Calhoun, 1996), it is unclear whether PTG is reflective of a nonlinear cognitive maturation process and development (Eve & Kangas, 2015). PTG is currently theorized as distinct from a linear maturation trajectory (i.e., intrapersonal changes such as cognitive and behavioral changes across the lifespan), with the traumatic event triggering nonlinear growth (Eve & Kangas, 2015). Eve and Kangas (2015) evaluated PTG in relation to the lifespan and psychosocial developmental theory of Erikson (1982) and the cognitive developmental theory of Piaget (1972, 1990) to determine whether the empirical findings from the PTG field reflect a linear or nonlinear form of cognitive maturation. Although Weiss (2014) evaluated the similarities between PTG and Tornstam’s (2005) concept of gerotranscendence—a theory of positive changes related to the aging process—Eve and Kangas (2015) examined PTG across the lifespan.

**Erikson’s theory and PTG.** Erikson’s (1982) theory on the process of developmental growth throughout the lifespan (i.e., the reconciliation of two conflicting forces during a stage, the mastery of the challenge of the stage, and the emergence from the stage with the corresponding virtue) is similar to PTG in that the reevaluation of schemata following a traumatic event can result in positive growth (e.g., Calhoun et al., 2010; Eve & Kangas, 2015). Additionally, the positive changes associated with PTG are often inherent in key phases of development across the lifespan where individuals change as part of cognitive maturation through successive life experiences (Eve & Kangas, 2015). If PTG reflects normal psychosocial development, the domains of PTG can utilize the cognitive maturation inherent in psychosocial development (Eve & Kangas, 2015).
Thus, Eve and Kangas (2015) proposed that individuals also could experience PTG due to non-traumatic events (e.g., pregnancies, traveling the world). Accordingly, an individual’s baseline level of psychosocial development or cognitive maturation pre-trauma may then influence the amount of PTG experienced following trauma (Eve & Kangas, 2015). For example, a person who has experienced various life experiences may experience less PTG following a trauma due to a ceiling effect (Eve & Kangas, 2015). Thus, psychosocial development may affect an individual’s capacity to experience cognitive change (i.e., PTG) following stressful or traumatic events (Eve & Kangas, 2015). On the other hand, PTG after experiencing a traumatic life event may just represent an accelerated form of cognitive maturation within psychosocial development (Eve & Kangas, 2015).

Regardless, a limitation of the PTG literature is that non-trauma related growth has not been adequately considered; the literature has not clearly delineated whether PTG is due to natural cognitive maturation factors, including non-traumatic and cumulative life experiences, or due to accelerated cognitive growth arising from trauma (Eve & Kangas, 2015). Thus, an individual’s baseline level of psychosocial development pre-trauma may influence the amount of PTG experienced rather than PTG being a distinct positive change that follows trauma (Eve & Kangas, 2015). Otherwise, PTG may represent an accelerated form of cognitive maturation after experiencing a traumatic life event (Eve & Kangas, 2015).

In conclusion, the literature lacks consensus on whether PTG is an extension of lifespan developmental theories (Erikson, 1963, 1982) accelerated by exposure to a traumatic event, an authentic nonlinear positive change, or a combination of these factors.
(Eve & Kangas, 2015). Hence, PTG should be examined across the lifespan (Eve & Kangas, 2015) and the relationship between PTG and Erikson’s developmental model should be investigated empirically.

**Developmental Implications of Parent Loss During Adolescence**

In light of the potential relationship between PTG and psychosocial development, specific attention to research on the developmental implications of early parental death is warranted as well, especially when the parental death occurs in adolescence. Parentally bereaved youth face the challenge of mastering both the primary tasks of mourning and the normative tasks of development (Oltjenbruns, 2001). “Development becomes overshadowed with guilt-laden magical thinking, fantasies of reunion, and the continued devastation and regret about the life that could have been had the parent lived” (Biank & Werner-Lin, 2011, p. 272). Further, the death of a parent may include the psychological loss of the surviving parent. This could lead to the bereaved youth not having familial supports—especially if the surviving parent is not emotionally present—to accomplish grief-related or normative developmental tasks, thus attempting to grow and grieve on their own (Biank & Werner-Lin, 2011). Hence, if a child experiences disabling grief, the tasks of mourning may become overwhelming to the point the child is unable to progress developmentally in a normative manner and unable to complete the mourning process (Biank & Werner-Lin, 2011; Webb, 2003; Worden, 1996). Additionally, bereaved youth can experience regressions in developmental milestones and have lower developmental competence (Brent et al., 2012; Dowdney, 2000). “The [bereaved] child’s confidence in the world, in the parent’s omnipotence, and in their own agency are destroyed…as their parent’s death robbed them of an important relationship within which they could build...
mastery over emotional regulation” (Biank & Werner-Lin, 2011, p. 275).

Worden (1996) proposed tasks that mourning children face after the death of a parent that are to be understood within the context of the child’s developing stage and cognitive, emotional, and social capacities. The first task is to accept the reality of the loss, accepting the enduring separation from the deceased parent. The second task is experiencing the pain of the loss. The third task is adjusting to the environment without the deceased parent, filling the emotional and pragmatic gaps left by the deceased (e.g., the dynamic shift in the child’s relationship with the surviving parent). The fourth and final task is integrating the deceased parent into the context of the child’s ongoing life and memorializing the deceased parent in a way that promotes growth. Bereaved youth can adaptively address each of these tasks of mourning at each developmental stage throughout their lifetime, utilizing mature cognitive and emotional capacities as they age (Biank & Werner-Lin, 2011). Revisiting the tasks of mourning helps bereaved youth to understand death more generally, their parent’s death more specifically, and their own loss in new ways, reworking their previous formulations about the death and their beliefs about the hypothetical life they would have experienced if their parent was alive (Biank & Werner-Lin, 2011). According to Biank and Werner-Lin (2011), grief for a child is not resolved; it is renegotiated: “grief becomes a primary context within which the child’s development occurs. Loss becomes integrated into the child’s core self at each stage of development” (p. 277). Thus, Biank and Werner-Lin proposed that successful grieving is not the termination of grief, but functional adaptation to prolonged grief.

Unfortunately, contemporary empirical research on developmental implications of parental death, especially when the death occurs in adolescence, is missing in the
literature. When specifically examining parental death during adolescence, the majority of bereaved adolescents exhibit acute grief reactions such as sleep problems, anger, irritability, and behavioral problems (Silverman & Worden, 1992), along with lower self-esteem (Mack, 2001; Worden & Silverman, 1996), and lower grades and more school failures (Berg et al., 2014). However, these immediate reactions of bereaved adolescents may be normative since 75-80% of the youth who experience early parental death do not develop significant mental health problems after the death of a parent (Cerel et al., 2006; Dowdney, 2005; Luecken & Roubinov, 2012; Worden et al., 1999). Nevertheless, in comparison to non-bereaved peers, Stikkelbroek et al. (2016) found that family bereavement puts adolescents at risk for internalizing problems within two years and mental health problems by the age of 19. Similarly, past researchers have noted that parentally bereaved adolescents are at increased rates of depression and suicidality (e.g., Finklestein, 1988; Harrison & Harrington, 2001; Heinicke, 1973; Hill & Price, 1967; Jacobs & Bovasso, 2009; Jakobsen & Christiansen, 2011; Lloyd, 1980; Mack, 2001; Schoenfelder et al., 2011; D. A. Taylor, 1983) and other psychiatric difficulties, even as adults (Downey, 2000). Additionally, parentally bereaved adolescents are also at risk of more drug abuse (von Sydow et al., 2002), greater involvement in youth delinquency (Draper & Hancock, 2011), and more violent crime involvements (Wilcox et al., 2010). Moreover, early parental death during adolescence has been associated with mortality risks after the age of 65 (K. R. Smith et al., 2014). Raza et al. (2008) found that adolescents who had lost a parent reported severe psychosocial problems compared to non-bereaved adolescents; psychosocial problems included the domains of health and physical development, home and family, and adjustment to college work.
More recently, Feigelman et al. (2017) conducted a 7-year longitudinal study investigating the effects early parental death on adolescent and early adulthood functioning. They found various behavioral problems and social-psychological adjustment deficits during adolescence (e.g., increased depression, increased suicidality, lower self-esteem, lower academic achievements, substance abuse, increased delinquency, and criminal behavior), with most detrimental adjustment behaviors diminishing during young adulthood. However, individuals who experienced premature school withdrawals and diminished interests in college attendance due to early parental death had diminished academic accomplishments, lingering economic disadvantages, and a hesitancy to marry (for females) as they progressed to young adults, even after controlling for racial minority membership and social class. Limited research exists that specifically examines the short- and long-term effects of the death of a parent during the specific developmental period of adolescence. Furthermore, the developmental implications of adolescence are rarely examined within these studies.

From a psychodynamic perspective, the developmental tasks of adolescence and the tasks of mourning are similar (Freud, 1958; Lampl-deGroot, 1960). There is the need to withdraw cathexis from the loved ones in order to make energy available for use in new relationships and further growth. If the adolescent is unable to mourn, he or she cannot decathect family ties, which this tie to the past may hinder the mastery of developmental tasks and the transition into a healthy emotional adult life (Seligman et al., 1974). The biological changes of adolescence can also revive grief, which can overwhelm the ego of the adolescent who is weakened by biological and psychological stresses (Seligman et al., 1974). Thus, delayed grief may not be pathological as long as it
is addressed (Seligman et al., 1974).

From a more modern developmental and lifespan perspective, the primary developmental task of adolescence is individuation—establishing an autonomous identity separate from parents while still maintaining a close connection to them (Battle, Greer, Ortiz-Hernández, & Todd, 2013). As Blasi (1988) stated, “The sensitive period for the development of identity are the adolescent years” (p. 227). The death of a parent complicates the process of separation from parents and the establishment of an appropriate ego ideal and identity (Finkelstein, 1988). When a parent dies as an adolescent is distancing him or herself to establish a more autonomous identity, the adolescent may experience feelings of guilt and a sense of loss about not being able to reestablish a close relationship with their deceased parent in the future (Janowiak, Mei-Tal, & Drapkin, 1995).

Bereavement affects an adolescent’s self-concept and identity formation, interpersonal relations, schoolwork, family involvement, and psychological well-being due to the loss occurring during significant physical, cognitive, interpersonal, and psychosocial changes and transitions. Worden and Silverman (1996) noted how adolescents could experience anxiety and perceive a lack of predictability in their lives due to early parental death, which could subsequently impact their social development. Bereavement thus creates obstacles to normal transitions to young adulthood and might impair successful completion of developmental tasks, such as developing an identity separate from parents, separating emotionally from parents, and beginning intimate relations with peers (Balk, 1991). Adolescents also experience the developmentally normative conflict between identity and identity confusion (Erikson, 1963, 1968). Thus,
adolescent mourning is a separate process from child and adult bereavement due to the unique adolescent developmental experiences. Few studies exist that focus on the unique experience of an adolescent’s reaction to a parental death.

Marcia (1988) stated:

[The] singular achievement of late adolescence, the formation of an identity, is accomplished via a synthesis of previous childhood identifications, so that an individual maintains a continuity with his or her past, a meaning for the present, and a direction for the future. (p. 217)

Thus, special attention must given to the impact of a parent’s death on this process of identity development, especially as the adolescent transitions to the next stage of development, young adulthood, with its accompanied developmental tasks. Young adults deal with life transitions involving identity, independence, and intimacy; they also experience the developmentally normative conflict between intimacy and isolation (Erikson, 1963, 1968). Thus, it is important to evaluate how the death of a parent during adolescence impacts those individuals as young adults from a developmental perspective.

**Impact on Subsequent Developmental Stages**

Clark et al. (1994) promoted a “shocks and aftershocks” or “cascade” model of adolescent grief; in short, adolescents re-experience the death of a parent at successive developmental stages. This is related to earlier research from Bowlby (1980), who suggested youth retain a relationship with the deceased parent and that healthy mourning involves reconsidering the relationship at other stages of development, reinterpreting their parent’s life and death with more developed cognitive and emotional tools. Biank and Werner-Lin (2011) suggested that the reworking of the death of a parent is a lifelong
process. Furthermore, they asserted that as youth reinterpret the death of their parent in subsequent developmental stages, they must also address earlier understandings of their parent’s life and death, grieving the life they lost when their parent died. Women who had experienced early parental death of a mother stated in Edelman’s (2006) study that they grieved to the best of their ability as children, but at major developmental transitions, the longing for their deceased mother would reignite the grieving process and feelings of abandonment. Clark et al. (1994) proposed that the absence of the deceased parent is felt profoundly during normative transitions (e.g., entering high school, experiencing a first romantic relationship, applying to college), especially if the surviving parent is preoccupied with his or her own grief, and the skills the child adapted to cope with parental death are no longer sufficient in light of these new possibilities. The deceased parent would have supported the child in these transitions; thus, the child is likely to seek out a new internal relationship with their deceased parent during these times. If not, the child will not have the confidence to make life changes (Clark et al., 1994).

The effects of parental loss during adolescence have a significant impact on young adults especially. Levin (1966) emphasized the vulnerability of young adults regressing to the developmental period during which their loss occurred. As young adults pass through developmental phases of early adulthood, they may revisit significant losses that occurred in the past, processing the experience of loss and the relationship with the deceased from a perspective not possible earlier in life (Knox, 2007). Knox (2007) noted that the resurgence of grief could be upsetting and confusing to young adults who felt they had already come to terms with past losses. In light of the developmental task of
intimacy, early parental death is a severe and painful disruption of one of the most significant relationships in an individual’s life, and thus, has an effect on the formation of later relationships (Manning, 1998). Adolescent attachment behavior is unique because the emphasis is on the relinquishment of parental attachment and the development of significant attachments to non-parental figures for the first time; few researchers have focused on the bereavement experience of adolescents and its effects on the quality of later adult relationships (Manning, 1998). Thus, a developmental perspective is warranted in the investigation of the impact of losing a parent during adolescence throughout the lifespan.

Summary

In conclusion, examining young adults who have experienced the death of a parent during adolescence can bring more insight into the long-term impact early parental death has on development and PTG processes. Few empirical studies have focused on the unique experience of an adolescent’s reaction to a parental death from a developmental perspective. Thus, more empirical research is needed to address the long-term developmental implications of parental death during adolescence, especially during young adulthood with its accompanied developmental task. Erikson’s (1963, 1968) psychosocial developmental lens could provide a robust perspective on the developmental impact of early parental death during adolescence. Specifically, examining the psychosocial development of young adults who experienced early parental death during adolescence could provide information on the long-term developmental impact of this type of loss. Since grief and mourning must be addressed within the context of both individual and socioenvironmental factors (Kaplow et al., 2012), the role
of grief in psychosocial development warrants investigation as well. Moreover, considering the link between inner and outer reality of an individual within Erikson’s theory (Marcia & Josselson, 2013), and how an individual’s sociocultural influences impact psychosocial development (Erikson, 1963), the roles of religiosity/spirituality, social support, ethnicity, and SES in psychosocial development also merit investigation.

Furthermore, research examining the concept of PTG in individuals who experienced early parental death during adolescence is warranted due to the limited literature on the PTG and early parental death, especially when the death occurs during adolescence. Although Tedeschi and Calhoun (1996, 2004b) proposed that a person needs time to recover and cognitively process a traumatic event, this timeframe is not clearly delineated (Eve & Kangas, 2015) and few researchers have examined the role of time since death in relation to PTG (Michael & Cooper, 2013). Wolchick et al. (2009) found a negative relationship between time since death and PTG, and Meyerson et al. (2011) found evidence that PTG may decay over time, especially for youth. Thus, examining PTG in young adults who experienced early parental death during their adolescence could contribute to the limited literature on the long-term trajectory of PTG in individuals who experienced early parental death. Furthermore, the time that has transpired since the event is one way to distinguish between actual growth and perceived growth because actual growth takes time to occur (Helgeson et al., 2006).

Examining related variables to PTG in young adults who experienced early parental death during their adolescence could provide insight into the process of the PTG with this population. In light of the potential of PTG to decay over time (Meyerson et al., 2011; Wolchick et al., 2009), examining related variables in a subsequent developmental stage
to when the trauma happened might give insight into sustaining PTG throughout the lifespan. Furthermore, young adults are vulnerable to regressing to the developmental period during which their loss occurred (Levin, 1966), experiencing a resurgence of grief that could be upsetting and confusing to young adults as they revisit their loss with a new perspective (Knox, 2007), potentially resulting in even more distress. Thus, examining correlates of PTG in young adults during this process is important to investigate as well.

The PTG theoretical model (Calhoun et al., 2010; Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004b), which has been supported by research on the correlates of PTG (e.g., Helgeson et al., 2006; Meyerson et al., 2011; Michael & Cooper, 2013; Prati & Pietrantoni, 2009; Shakespeare-Finch & Lurie-Beck, 2014; Stanton et al., 2006; Vishnevsky et al., 2010), has documented the factors that play a role in determining the degree to which an individual experiences PTG: (a) seismicity of the event, which induces cognitive processes; (b) sociocultural context (i.e., distal and proximate sociocultural influences); and (c) the characteristics of the individual. Examining the relationships between grief and PTG could capture the seismicity of an event and address the limited and conflicting literature that examines this relationship as discussed previously (e.g., Calhoun & Tedeschi, 2001; Davis et al., 1998; Gamino et al., 2000; Talbot, 2002; Taku et al., 2015). Investigating the well-established relationship between an individual’s religious and spiritual background and PTG (e.g., Meyerson et al., 2011; Michael & Cooper, 2013; Milam et al., 2004; Prati & Pietrantoni, 2009; Shaw et al., 2005) could capture cognitive processes utilized during the aftermath of trauma, along with distal sociocultural influences and individual characteristics. Additionally, the examination of social support and its well-established relationship to PTG (e.g., Aguirre,
2008; Meyerson et al., 2011; Prati & Pietrantoni, 2009; Wolchik et al., 2009; Wolfe & Ray, 2015) could capture proximate sociocultural influences. Finally, exploring the relationship between psychosocial development and PTG could capture individual characteristics and the sociocultural context; moreover, examining this relationship could address whether PTG is an extension of lifespan developmental theories accelerated by exposure to a traumatic event, an authentic nonlinear positive change, or a combination of these factors (Eve & Kangas, 2015).

This chapter provided a rationale for the investigation of PTG in young adults who experienced early parental death during adolescence, the psychosocial development impact of early parental death during adolescence, and the relationship between PTG and psychosocial development. The methodology for investigating these relationships within a sample of young adults who experienced early parental death during adolescence is outlined in the next chapter.
CHAPTER THREE: RESEARCH METHODOLOGY

This chapter describes the research design and methodology of this study. A post-positivist approach was utilized as variables were identified to objectively examine relationships and answer predetermined research questions (Creswell, 2014). This descriptive and correlational quantitative cross-sectional study employed electronic survey research methodology (Gall, Gall, & Borg, 2007) via Qualtrics. The goal of this study was to discover the psychosocial long-term developmental impact of early parental death during adolescence in young adults, and to develop a predictive model of PTG using psychosocial development, religiosity/spirituality, social support, and grief. This chapter describes the target population and sample studied, data collection procedures, instruments utilized, research questions and hypotheses, research design, and data analysis. Ethical considerations and limitations of the study are discussed as well.

Population and Sample

The target population for this study was young adults (20-24 years old) who experienced the death of a biological parent during adolescence (13-19 years old) in the United States. In the United States, approximately 3.4% of children experience the death of a parent before the age of 18 (U.S. Bureau of the Census, 2001). Although correlational studies require a minimum of 30 participants, obtaining the largest sample possible for quantitative research is recommended (Gall et al., 2007). An a-priori power analysis was conducted using G*Power for a two-sample t-test; with an alpha level of
.05, minimum power established at .80, and an effect size of .50, 102 participants would be necessary to find a statistically significant effect for a one-tailed hypothesis. An a-priori power analysis was conducted using G*Power for a one-way ANOVA with a maximum of eight groups; with an alpha level of .05, minimum power established at .80, and an effect size of .25, 240 participants would be necessary to find a statistically significant effect for a one-tailed hypothesis. Finally, an a-priori power analysis was conducted using G*Power for a sequential multiple regression with seven predictors in the first block and five predictors set in the second block; with an alpha level of .05, minimum power established at .80, and an effect size of .15, 98 participants would be necessary to find a statistically significant effect for a one-tailed hypothesis. The sample included two groups: (a) a sample of young adults, ages 20-24, who experienced the death of a parent during their adolescence, ages 13-19 (loss group); and (b) a comparative sample of young adults who had not experienced the death of a parent (non-loss group). Each group had 128 participants. Qualtrics Panels was utilized to obtain an online sample.

Data Collection

The researcher obtained approval from the Institutional Review Board at William & Mary before data collection procedures commenced. An online sample was obtained via Qualtrics Panels, a panel aggregator. Qualtrics Panels partners with over 20 online panel providers, including the largest and most well-known panel companies across the globe, to supply respondents; Qualtrics Panels bids out projects to multiple vendors to provide consumers with a wide range of options and a realistic price (Qualtrics, 2014). The majority of Qualtrics Panels samples come from traditional and actively managed
market research panels. Moreover, Qualtrics Panels utilizes a sophisticated digital fingerprinting technology and IP address checks to ensure that participants’ data are valid, reliable, and exclude duplication. For example, Qualtrics Panels prevents any person with the same IP address from completing the survey more than once in order to prevent duplicate responses. Additionally, every strategic panel partner of Qualtrics Panels uses deduplication technology to provide reliable results and to retain the integrity of survey data. Each Qualtrics Panels partner confirms respondent identity; each panel has its own confirmation procedures (e.g., TrueSample, Verity, SmartSample, USPS verification, digital fingerprinting) to confirm respondent identity, verifying respondent address, demographic information, and email address. For hard-to-reach groups, Qualtrics utilizes niche panels obtained through specialized recruitment campaigns. In addition, hundreds of profiling attributes are included in the panels to ensure accurate and detailed knowledge of potential respondents.

Soucy and Hadjistavropoulos (2017) reported that Qualtrics Panels has become a prevalent recruitment method for assessing attitudes and perceptions (e.g., Bertrand, Sen, Otake, & Lee, 2014; Rolison, Hanoch, & Miron-Shatz, 2012; van Wagenen, Magnusson & Neiger, 2015), and many researchers (e.g., Bertrand et al., 2014; Cheng, 2014; Rolison et al., 2012) have published studies utilizing Qualtrics Panels in reputable journals. Qualtrics Panels gives access to a more representative national sample than is typically available through local recruitment (Soucy & Hadjistavropoulos, 2017). Qualtrics Panels have successfully obtained samples deemed to be representative based on available research of the populations under investigation or closely mirror target populations (e.g.,
Dixon, McComas, Besley, & Steinhardt, 2016; Soucy & Hadjistavropoulos, 2017), especially regarding general population samples (e.g., Dixon et al., 2016).

Each panel has its own method of recruiting respondents, although all are similar. Typically, respondents can choose to join a panel through a double opt-in process and requirement (i.e., those who do not reconfirm will not be contacted to participate in surveys) and potential respondents can unsubscribe at any time (Qualtrics, 2014). Upon initial registration requesting participation in market research studies, respondents enter basic information about themselves (e.g., demographic information, hobbies, interests) to build their profiles. Qualtrics Panels partners utilize respondent profiles to select studies that would best fit case specifications. Whenever a survey is created that respondents would qualify for based on the information they have given, they are notified via email and invited to participate in the survey for a given incentive. The email invitation is simple and generic, with no specifics about the topic of the survey, in order to limit self-selection bias. Respondents are told that they qualify for a survey for research purposes only, told the duration of the survey, what incentives are available, and given a link to the screening questionnaire and survey. Participants are told to follow the link if they would like to participate. The link first leads to a screening questionnaire to confirm eligibility, and then to the survey. Incentives are most often given on a point system, based on the length of the survey, the respondent’s specific panelist profile, and target acquisition difficulty; points can be pooled and later redeemed in the form of various rewards (e.g., gift cards, cash, airline miles, sweepstakes entries, vouchers, or credit for online games).

The timeline for data collection varies based on response and incidence rates; usually, projects with a sample size of 500 or less are completed within 3-5 days, while
samples of 1,000 or more can take 7-10 days. In addition, Qualtrics Panels utilizes data quality checks (e.g., attention filter items, response time check) to ensure high-quality data; if participants do not qualify for the survey or fail to meet the data quality checks, they are screened out of the survey, and their responses are not recorded. Qualtrics Panels will replace respondents who straight-line through surveys, finish in less than a third of the media survey duration, or skip more than a third of the survey. Qualtrics provides an option for these partial respondents to still be recorded and viewed. Within 14 days of survey completion, Qualtrics Panels clients can review the results in light of responses that need to be replaced due to quality issues.

The Qualtrics Panels project occurs in various stages. The first stage is the pre-launch, where Qualtrics representatives work with the client on the design of the survey and to confirm the details of the project. The next stage is the soft launch where Qualtrics Panels collects about 10% of the total sample size (50-100 respondents) and data collection is paused so that the researcher can review the data to identify any issues before the full launch, at which time the rest of the sample is collected. The final stage, the review and approval stage, is a 7-day time period to review the data; if any problems are identified, Qualtrics Panels replaces the data. After the 7 days of the review and approval stage, the data are considered fully approved, and participants receive their compensation.

In order to achieve a representative sample of target populations, Qualtrics Panels partners randomly select participants for surveys where participants are highly likely to qualify; certain exclusions (e.g., category exclusions, participation frequency) take place, and each sample from the panel base is proportioned to the general population and then
randomized before the survey is deployed. While not a completely random sample, Dixon et al. (2016) stated that using Qualtrics Panels provides greater demographic variability when compared to a student sample typically used in social science research.

The survey in the present study included the informed consent (Appendix A). The informed consent explained the purpose of the study, described level and type of participant involvement, and informed participants of the benefits and potential risks of participation (e.g., Sarantakos, 2005). The informed consent also included identification of the researcher, the sponsoring institution, the researcher’s contact information, and a confidentiality statement. Participants were informed that the survey would take approximately 15-20 minutes to complete and that they could discontinue completion of the survey at any point. The informed consent asked participants if they agreed to participate in the study and understood their rights as a participant. The survey also included a demographic questionnaire and assessments. Attention filters or instructional manipulation checks were utilized to assess for survey validity (Oppenheimer, Meyvis, & Davidenko, 2009); two question were inserted in the survey requiring participants to answer in such a way as to determine whether they were paying attention. Beymer, Holloway, and Grov (2017) compared sampling procedures between Qualtrics Panels, Mechanical Turk, and a clinic-based sample; approximately 86% of the Qualtrics Panels sample, 93% of Mechanical Turk sample, and 72% of clinic-based sample passed the study’s attention filter, providing validity to the use of Qualtrics Panels sampling.

Participants in the present study were allowed to complete the survey regardless of their response to the attention filter; however, results only included those who passed the attention filter. Finally, the survey had a Flesch-Kincaid Grade Level Readability score
of 5.8, meaning that participants with fifth-grade or better reading comprehension skills could understand survey items.

**Instrumentation**

Instruments included a demographic questionnaire, along with the following measures: (a) Modified Erikson Psychosocial Stage Inventory (MEPSI; Darling-Fisher & Kline Leidy, 1988) to measure the strength of psychosocial developmental attributes that arise from progression through Erikson’s (1982) eight stages of development; (b) Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) to measure social support; (c) Assessment of Spirituality and Religious Sentiments (ASPIRES; Piedmont, 2012) to measure spirituality/religiosity (Religious Involvement subscale and the total score of the Spiritual Transcendence components); (d) Texas Revised Inventory of Grief (TRIG; Faschingbauer et al., 1987) to measure grief levels (Past Life Disruption subscale; Present Emotion scale); and (e) Posttraumatic Growth Inventory Expanded (PTGI-X; Tedeschi et al., 2017) to measure posttraumatic growth (PTG). Both loss and non-loss groups took the MEPSI, MSPSS, and ASPIRES scales. Additionally, the loss group took the TRIG and PTGI-X scales. In total, the participants in the non-loss group were asked to answer 181 items and those in the loss group were asked to answer 131.

**Demographic Questionnaire**

The Demographic Questionnaire (Appendix B) provided descriptive statistics to make comparisons within the sample. The questionnaire asked respondents to report their age, gender, race/ethnicity, religious affiliation, and SES (as measured by the subjective financial situation [SFS] measure; Williams et al., 2017). SFS is discussed in
further detail later in this section. Additionally, the questionnaire asked respondents in the loss group for information related to the parental death they experienced (e.g., relationship with deceased [mother, father], age when parental death occurred, type of death, level of closeness); the level of closeness item was taken from the TRIG instrument (Faschingbauer et al., 1987).

Research examining SES has typically used objective indicators (e.g., income, education, occupational status; Phelan, Link, & Tehranifar, 2010); however, recent research has demonstrated the utility of subjective measures of SES independent of the conventional objective SES measures, indicating that subjective SES measures capture subtle aspects of SES more accurately than the conventional objective measures (Karvonen & Rahkonen, 2011; Operario, Adler, & Williams, 2004). Due to the evolving nature of educational attainment and income during young adulthood, indicators of SES are difficult to identify (Williams et al., 2017). Williams et al. (2017) found that SFS is associated with other commonly used measures of SES measures; thus, SFS may be a more robust measure of SES and should be considered a viable measure for assessing SES among young adults, particularly for those who are 18-24 years old. Hence, the questionnaire in this study utilized the SFS measure developed for the Truth Initiative Young Adult Cohort Study in collaboration with experts in young adulthood and demography as used by Williams et al. to measure SES. Finally, the item regarding the level of closeness to the deceased parent was taken from an item in the TRIG (Faschingbauer et al., 1987).

The questions about gender, SES, ethnicity, age, type of parental death, gender of deceased parent, age when death occurred, and level of closeness to the deceased were
utilized to examine the impact these variables have on psychosocial developmental impact of parental death during adolescence in young adults. Furthermore, questions about gender, ethnicity, age, and years since death were utilized as predictor variables for the sequential regression model of PTG.

**Modified Erikson Psychosocial Stage Inventory**

The MEPSI was designed to measure the strength of attributes that arise from the progression through Erikson’s (1982) eight stages of psychosocial development (Darling-Fisher & Kline Leidy, 1988). The MEPSI expanded on the Erikson Psychosocial Stage Inventory (EPSI) developed by Rosenthal, Gurney, and Moore (1981), which was designed to measure Erikson’s first six stages of psychosocial development. Each of the EPSI’s six scales corresponded to each of the six stages; each scale was comprised of 12 statements—six reflecting the attribute derived from successful resolution of the crisis of the stage, and six reflecting the attribute derived from unsuccessful resolution. Items were developed from Erikson’s (1963, 1968, 1980, 1982) writings about characteristics of each stage. The statements were randomly ordered and utilized a 5-point Likert scale (*Almost Always True to Hardly Ever True*). The EPSI was initially tested on Australian adolescents and had reliability coefficients from .57 to .75. Construct validity was affirmed when older participants scored significantly higher on each subscale. However, EPSI was designed for young Australians and utilized Australian colloquialisms.

Darling-Fisher and Kline Leidy (1988) modified the inventory by reducing the number of items to 10 per scale (5 per positive and 5 per negative attribute), and by adding 20 new items to address the attributes associated with the last two stages (i.e., generativity/stagnation, ego identity/despair). Six experts in Eriksonian developmental
psychology participated in the instrument’s development to ensure content validity. The process of reducing the items in the subscales entailed the developers of the MEPSI eliminating items from the EPSI that were identified by Rosenthal et al. (1981) as detracting from the subscale’s reliability, were repetitious, contained Australian or adolescent colloquialisms, were less applicable to an adult, or were judged to inadequately measure psychosocial development in an adult. The two new subscales created were developed in a similar fashion as Rosenthal et al.; key words and phrases describing attributes associated with the stages were compiled from Erikson’s writing to generate a wide variety of potential items that were evaluated by experts in Eriksonian development.

The alpha reliability coefficient for the MEPSI as a global scale was .97. Coefficients for the eight subscales, which correspond to the eight stages of development, were as follows: trust (.82), autonomy (.84), initiative (.78), industry (.85), identity (.85), intimacy (.78), generativity (.75), and ego integrity (.80). The construct validity of the scale was evidenced by positive correlations between chronological age and the attributes associated with adulthood (MEPSI global scale), along with an increase in mean generativity and ego integrity levels with age. Kline Leidy and Darling-Fisher (1995) employed a secondary analysis to evaluate the internal-consistency reliability and construct validity of the MEPSI across diverse samples (e.g., healthy young adults, hemophilic men, healthy older adults, and older adults with chronic obstructive pulmonary disease). Internal-consistency estimates for the overall measure was high and construct validity was supported across the samples; total score reliability levels were high for men and women across the four samples with an average score of .95, and, as
predicted, total score was correlated significantly with adaptation to parenthood, social adjustment, self-transcendence, and need satisfaction.

To obtain a subscale score of the MEPSI, the values of the indicated negative items are reversed and mean score is then computed. The total MEPSI score is obtained by computing the mean of the eight subscale scores. A high score (4-5) reflects a predominance of positive attributes, and a low score (1-2) reflects a predominance of negative attributes (i.e., the higher the score, the stronger the positive attributes). If a dichotomy (e.g., low, high) is desired, scores equal to or less than 3.9 are considered low, and scores equal to or greater than 4 are considered high.

For this study, the participants were asked to complete the entire instrument. Total score or global scale of the instrument was utilized. A minor revision was made to the instructions of the instrument to accommodate its use online (“Please read each sentence and CIRCLE the number, on the scale of 1 [HARDLY EVER TRUE] to 5 [ALMOST ALWAYS TRUE]” was changed to “Please read each sentence and select the response, on the scale of HARDLY EVER TRUE to ALMOST ALWAYS TRUE”). The MEPSI was used to examine the psychosocial developmental impact of early parental death during adolescence by comparing the MEPSI (global score) of the loss group and the non-loss group. The MEPSI (global score) was also the dependent variable for investigating how demographic variables (e.g., gender, SES, ethnicity, age), type of parental death, gender of deceased parent, age when death occurred, and level of closeness to the deceased impacted the psychosocial developmental of young adults who experienced parental death during adolescence. The overall MEPSI score was also utilized to determine whether and to what extent a relationship existed among social
support, religiosity/spirituality, grief, and PTG for the participants in this study. Finally, the MEPSI was utilized as a predictor variable of PTG.

**Multidimensional Scale of Perceived Social Support**

The MSPSS was developed as a self-report measure to subjectively assess social support adequacy from three sources (i.e., family, friends, significant other; Zimet et al., 1988). Zimet et al. (1988) stated that the MSPSS was created to be self-explanatory, simple to use, and time conserving; hence, it is ideal when administration time is limited and/or a number of measures are being administered at the same time. Originally, the MSPSS was constructed with 24 items, but results of repeated factor analyses from the initial study of undergraduate students resulted in the final 12 items (Zimet et al., 1988). Each item was rated on a 5-point Likert-type scale, but a 7-point rating scale was implemented for the finalized measure to increase response variability ranging from *very strongly disagree* to *very strongly agree*. Each subscale (i.e., family, friends, significant other) consisted of 4 items with internal consistency (Cronbach's alpha) values of .87 for the family subscale, .85 for the friends subscale, and .91 for the significant other subscale, and test-retest reliability values were .85 for the family subscale, .75 for the friends subscale, and .72 for the significant other subscale. The internal consistency of the total scale was .88. Test-retest value for the total scale was .85. Factor analysis was used to validate that the different sources of support were distinct from one another. Moderate construct validity was demonstrated by correlations between subscales and measures of depression and anxiety, with high levels of perceived social support associated with low levels of depression and anxiety symptomology.
Zimet, Powell, Farley, Werkman, and Berkoff (1990) extended the initial findings by demonstrating internal reliability, factorial validity, and subscale validity of the MSPSS in various samples (e.g., pregnant women, adolescents living in Europe with their families, pediatric residents). They found good internal reliability across samples, and strong factorial validity to confirm the three-subcales. Across the samples, internal reliability values ranged from .81 to .90 for the family subscale, .90 to .94 for the friends subscale, and .83 to .98 for the significant other subscale. The internal reliability value for the whole scale ranged from .84 to .92 across the samples. Dahlem, Zimet, and Walker (1991) examined the psychometric properties of the MSPSS with a diverse group of students at an urban college. The MSPSS maintained internal reliability, and the factor analysis confirmed the subscale structure. Cronbach’s coefficient alpha values were .91 for the total scale, and .90, .94, and .95 for the family, friends, and significant other subscales, respectively.

In this study, participants were asked to complete the entire instrument. The total score was utilized to determine whether and to what extent a relationship existed between psychosocial development, grief, religiosity/spirituality, and PTG for the participants in this study. Furthermore, the MSPSS was utilized as a predictor variable of PTG.

**Assessment of Spirituality and Religious Sentiments**

The ASPIRES is a measure that is relevant for working with individuals across a wide range of faith and religious traditions as well as nonreligious or agnostic persons (Piedmont, 2012). The ASPIRES has a validated observer rating form for couples or in situations where self-report is not feasible. Additionally, a short form version is available. Piedmont (2012) created the ASPIRES to measure two major dimensions:
Religious Sentiments (RS) and Spiritual Transcendence (ST). The RS component has two subscales: Religious Involvement (i.e., religiosity; the extent to which one is involved in and committed to practices/rituals of one’s faith group) and Religious Crisis (the extent to which one feels isolated from and punished by the God of his/her understanding or faith community). The ST component reflects an individual’s effort to create a broad sense of meaning in life. Individuals that are high on transcendence find a larger sense of meaning and purpose to life, having a developed sense of transpersonalism and feeling an attachment to nature and communities; individuals low on transcendence have a more materialistic orientation to life that emphasizes the immediacy of life (Piedmont, 2012). The ST component has three subscales: Prayer Fulfillment (positive feelings and connection to a transcendent reality), Universality (a belief in a larger meaning and purpose to life), and Connectedness (a belief that one is part of and belongs to a larger reality). ST and its subscales have been validated to represent aspects of an individual independent of personality dimensions (i.e., Five-Factor Model; Piedmont, 1999, 2001). Moreover, scores on these subscales had predictive validity above and beyond the Five-Factor Model in explaining interpersonal style, well-being, psychological maturity, coping ability, and sexual attitudes (Piedmont, 2009). Piedmont et al. (2007) found that RS and ST, the two domains of ASPIRES, differentially predicted outcomes.

The ST component has 23 items. The alpha reliabilities for the self-report scales were .94 for Prayer fulfillment, .78 for Universality, .49 for Connectedness, and .89 for the Total Score (Piedmont, 2012). The three subscales (i.e., Prayer fulfillment, Universality, Connectedness) were affirmed by principal components analysis. Items are rated from 1 (strongly disagree) to 5 (strongly agree) and are counterbalanced to control
for the effects of acquiescence. The RS component has 12 items. The first eight items, affirmed by principal components analysis, constituted the dimension of Religious Involvement (i.e., religiosity). Religious Involvement had an alpha reliability of .89. The last four items of the component, also affirmed by principal components analysis, constitute the dimension of Religious Crisis. Religious Crisis had an alpha reliability of .75. These two subscales of RS were significantly correlated \( r = - .35 \); thus, those in spiritual crisis tended to have less religiosity (Piedmont, 2012). The scores of the four items in the Religious Crisis subscale are simply summed because all items have the same five-point response scale (Piedmont, 2012). On the other hand, the Religious Involvement subscale contained different response categories (items with more response options had larger variances); thus, scores on each of the items were first standardized and then aggregated to a total score (Piedmont, 2012).

All ASPIRES scales had good convergent validity as evidenced by convergence values significantly correlating across two information sources (e.g., self-report, observer report; Piedmont, 2012). The five scales of the ASPIRES also had good discriminant validity (Piedmont, 2012). Through factor analyzing self-reported scores of the ASPIRES with self-reported scores of the dimensions of the Five-Factor Model of personality (FFM), RI and ST appeared to capture aspects of an individual independent of personality (Piedmont, 2012). The ASPIRES scales were also tested for construct validity and the ability to predict psychosocial criteria (e.g., life satisfaction, well-being, psychological maturity); ASPIRES scales correlated significantly with these psychosocial criteria and accounted for a substantial amount of variance in those scales (Piedmont, 2012). Finally, the ASPIRES demonstrated incremental validity in predicting
psychosocial criteria above and beyond personality (Piedmont, 2012). Overall, the ASPIRES have been found reliable and valid across various cultures and traditions (Piedmont, 2012).

In this study, the participants were asked to complete the entire instrument. The instructions of the instrument were slightly adapted to accommodate its use online (“Answer each question on the scale provided by checking the box that best expresses your feelings [e.g., ✓ or ✗]” to “Answer each question on the scale provided by selecting the response that best expresses your feelings”). The Religious Involvement (RI) subscale and the total score of the Spiritual Transcendence (ST) component were utilized to determine whether and to what extent relationships existed between psychosocial development, grief, social support, and PTG for the participants in this study. Furthermore, the RI subscale and total score of ST were utilized as predictor variables of PTG.

**Texas Revised Inventory of Grief**

The TRIG is a two-scale Likert-type measure that assesses grief associated with a death of a loved one (Faschingbauer et al., 1987); it quantifies grief reactions following bereavement and can also identify complicated grief reactions (Faschingbauer, 1981). The TRIG (Faschingbauer et al., 1987) is an expanded version of the Texas Inventory of Grief (TIG), a 14-item, self-report questionnaire (Faschingbauer, Devaul, & Zisook, 1977) that takes approximately 10 minutes to complete. The TIG was first utilized for patients in a psychiatric outpatient clinic who had lost a loved one to death. Items were based on a 5-point Likert scale (*Completely True* to *Completely False*). The items were analyzed for internal consistency and two sets of items correlated more highly with their
total scores than they did with each other. Seven items that referred to present feelings made up the first set, and the four items referred to behaviors immediately after the death. Faschingbauer et al. (1987) revised the TIG and created the TRIG to have 13 items measuring present grief (the Present Emotion scale) and eight items assessing past disruption due to loss (the Past Life Disruption subscale), for a total of 21 items. Mean scores for each subscale range from 1 to 5. Higher scores indicate less intense responses. Additionally, demographic/psychographic data can be collected information such as the level of closeness the respondent was to the deceased, time since death, related factors (e.g., funeral attendance), and a space for the respondent to write any other comments.

The Past Life Disruption subscale consists of statements regarding feelings and actions at the time the person died. The alpha coefficient for these items is .77 and the split-half reliability is .74 (Faschingbauer et al., 1987). Construct validity was obtained by testing the hypotheses that the deaths of people who were actively involved in the lives of the bereaved would produce more intense responses than those less actively involved; that females experience more intense responses following the death of a male due to traditional beliefs about dependency; that older adults who were less actively involved in their families would experience less intense responses; and that those who did not attend funeral services would score more intense responses than those who attended. Each hypothesis achieved significance at the .02 or .05 levels, validating the TRIG as a measure of the initial grief reactions to death (Faschingbauer, 1981; Faschingbauer et al., 1987). Thus, the subscale is a reliable and valid measure of initial adjustment to the death of a loved one.
The Present Emotion scale consists of statements regarding current memories, thoughts, feelings, opinions, and attitudes of the bereaved regarding the deceased person. The coefficient alpha is .86, and split-half reliability is .88 (Faschingbauer et al., 1987). The slope of the normative data, which suggested that grief dissipates over time, established construct validity. Construct validity was also obtained by testing the hypotheses that females would score higher on this measure than males due to the social acceptance of expression of emotions in females, and that the degree of relatedness to the deceased would produce more intense responses for close relationships. Results for both hypotheses were significant at the .05 level, suggesting that grief is related to time, sex, and the degree of closeness to the bereaved (Faschingbauer, 1981; Faschingbauer et al., 1987). Thus, the subscale is a reliable and valid measure of present levels of grief.

Scores on the two subscales can be combined to categorize respondents into one of four grief reactions groups (i.e., absence of grief, delayed grief, prolonged grief, acute grief) that describe a respondent’s present emotional status regarding their grief process (Faschingbauer, 1981; Faschingbauer et al., 1987). Absence of grief describes respondents who report low levels of life disruption, somatic symptomatology, and feelings associated with grief both in the past and the present. Delayed grief describes respondents who report low-level grief feelings and behaviors in the past, but their present grief is high. Prolonged grief describes respondents who report high levels of grief in the past and the present. Acute grief describes respondents who had an intense reaction to the death in the past but currently exhibit low levels of grief. Delayed and prolonged reactions are indicative of unresolved grief and acute grief is indicative of the
highest level of grief. High and low scores were above and below the 50th percentile, respectively.

According to previous researchers who explored the reliability of the TRIG, the Cronbach’s alpha values for the Past Behaviors subscale ranged from .77 to 82 and for the Present Feelings subscale ranged from .82 to .91 (e.g., Boyer & Hoffman, 1993; Faschingbauer et al., 1987; Hayes, Yeh, & Eisenberg, 2007; Ringdal, Jordhoy, Ringdal, & Kaasa, 2001; Seecharan, Andresen, Norris, & Toce, 2004).

In this study, the loss group was asked to take both subscales. As noted, the item regarding the level of closeness to the deceased parent in the demographic questionnaire was taken from the TRIG as well. A minor revision was made to the instructions of the instrument to accommodate its use online, to clarify response choices, and to answer items based on the parental death (“Think back to the time *this person* died and answer all of these items about your feelings and actions at that time by indicating whether each item is Completely True, Mostly True, Both True and False, Mostly False, or Completely False as it applied to you after this person died. *Check* the best answer” was changed to “Think back to the time *your parent* died and answer all of these items about your feelings and actions at that time by indicating whether each item is Completely True, Mostly True, Both True and False [Neutral], Mostly False, or Completely False as it applied to you after this person died. *Select* the best answer”; “checking how you presently feel” was changed to “*selecting* how you presently feel”). The TRIG scores of each subscale were utilized to determine whether and to what extent relationships existed between psychosocial development, social support, religiosity/spirituality, and PTG for
the participants in this study. Furthermore, the TRIG subscales were utilized as predictor variables of PTG.

**Posttraumatic Growth Inventory Expanded**

The PTGI-X (Tedeschi et al., 2017) is an expanded version of the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), which has been the most widely used measure of the positive changes individuals report as they struggle with the aftermath of potentially traumatic and highly stressful events (Helgeson et al., 2006; Linley & Joseph, 2004). The PTGI items were based on interviews with individuals who suffered the death of a spouse in later life or physical disabilities in adulthood; the items created were tested in a large sample of college students who reported experiencing various traumatic events. Emerging from this work were 21 items, with a 5-factor structure comprising domains of Personal Strength, New Possibilities, Relating to Others, Appreciation of Life, and Spiritual Change (Tedeschi & Calhoun, 1996). Taku, Cann, Calhoun, and Tedeschi (2008) performed a subsequent confirmatory factor analysis that has provided further empirical support for the five factors. The PTGI has also demonstrated validity in a sample of undergraduate students, with students who experienced severe trauma obtaining higher scores than those who had not (Tedeschi & Calhoun, 1996). Concurrent validity for the PTGI has been shown through correlations with constructs of resilience, hardiness, and optimism (Tedeschi & Calhoun, 1996). The PTGI also demonstrated high internal consistency (.90) for the total score (Tedeschi & Calhoun, 1996). The PTGI-X was created to address the Spiritual Change (SC) factor, which only had two items. The PTGI-X includes existential concerns that are not necessarily tied to traditional religious beliefs. Thus, the PTGI-X added new items to the
SC factor for a broader and culturally inclusive assessment of spiritual and existential growth to create the Spiritual-Existential Change factor.

The PTGI-X (Tedeschi et al., 2017) is a 25-item inventory. Participants are asked to identify the degree to which they did or did not experience a particular change (0 = I did not experience this change as a result of my crisis to 5 = I experienced this change to a very great degree as a result of my crisis). The score range for the total PTGI is 0 to 125; higher scores indicate greater growth. Means (ranges from 0 to 5) can be reported for each domain since each domain has a different number of items. Sample items from the PTGI include: “I changed my priorities about what is important in life,” “I have a stronger religious faith,” and “I put more effort into my relationships.” The measure was originally tested in three separate samples of different nationalities; internal reliability values of the PTGI-X total scale were satisfactory across the three samples: .97 for the United States, .96 for Turkey, and .95 for Japan. The 6-item Spiritual-Existential Change factor resulted in improved internal reliability across all three samples as well. Using confirmatory factor analysis, the 5-factor structure of the original PTGI was maintained. The PTGI-X was also significantly associated with core-beliefs disruption and event-related deliberate rumination—but not with event-related intrusive rumination—which are known predictors of PTG (Cann et al., 2010; Cann et al., 2011). All responses are added to obtain a total score. To obtain a factor score, the responses designated to a corresponding factor are added.

In this study, the loss group was asked to take the entire instrument. Directions were changed as directed by the original scale (“Indicate for each of the statements below the degree to which this change occurred in your life as a result of your crisis” was
changed to “Indicate for each of the statements below the degree to which this change occurred in your life as a result of your parent’s death”). Accordingly, the scale was changed as well. For example, “0= I did not experience this change as a result of my crisis” was changed to “0= I did not experience this change as a result of my parent’s death.” The total score of the PTGI-X was used as the target variable with psychosocial development, social support, religiosity/spirituality, and grief as predictor variables. as well as to determine whether and to what extent a relationship existed between psychosocial development, religiosity/spirituality, grief, and social support for the participants in this study.

**Research Questions and Hypotheses**

The research questions investigated in the current study included: (a) What is the long-term psychosocial developmental impact of parental death during adolescence in young adults?; (b) How do demographic variables (e.g., gender, SES, ethnicity, age), type of parental death, gender of deceased parent, age when death occurred, and level of closeness to the deceased impact the psychosocial development of young adults who experienced a parental death during adolescence?; (c) What is the relationship between psychosocial development, social support, religiosity/spirituality, grief levels, and PTG in young adults who experienced a parental death during adolescence?; and (d) Do psychosocial development, social support, religiosity/spirituality, and grief levels predict PTG in young adults who experienced a parental death during adolescence?

The researcher posited the following hypotheses: (a) When compared to non-bereaved peers, young adults who experienced a parental death during adolescence will have lower psychosocial developmental strength; (b) Young adults of a lower
socioeconomic status, young adults who experienced a parental death at a younger age during adolescence, young adults who were closer to the deceased parent, and younger aged young adults will have lower levels of psychosocial developmental strength; (c) Psychosocial development will be positively correlated with social support and religiosity/spirituality, and negatively correlated with grief levels; and (d) Psychosocial development, social support, religiosity/spirituality, and grief levels will be predictive of PTG.

Young adults who experienced a parental death during adolescence are hypothesized to have lower psychosocial developmental strength when compared to their non-bereaved peers due to the developmental challenges experienced after a parental death; these challenges can remain throughout the lifespan (Balk, 1991; Biank & Werner-Lin, 2011; Brent et al., 2012; Clark et al., 1994; Dowdney, 2000; Edelman, 2006; Janowiak et al., 1995; Knox, 2007; Levin, 1966; Manning, 1998; Raza et al., 2008; Webb, 2003; Worden, 1996; Worden & Silverman, 1996). Young adults of a lower SES who experienced a parental death are hypothesized to have lower psychosocial developmental strength due to the established risk factor of SES in the adjustment to early parental death (Berg et al., 2014; Dowdney, 2000; Jacobs & Bovasso, 2009; Kaplow et al., 2010; Luecken & Roubinov, 2012; Stikkelbroek et al., 2016; Werner-Lin et al., 2010; Wolchik et al., 2008). Young adults who have experienced the death of a parent at a younger age are hypothesized to have lower psychosocial developmental strength due to the established risk factor of age in the adjustment to early parental death (Appel et al., 2013; Berg et al., 2016; Niederkrotenthaler et al., 2012; Rostila et al., 2016). Young adults who had a higher level of closeness to their deceased parent are
hypothesized to have lower psychosocial developmental strength due to the established risk factor of the level of closeness to the deceased parent in the adjustment to early parental death (e.g., Brent et al., 1993; Melhem et al., 2008). Younger aged young adults are hypothesized to have lower psychosocial developmental strength due to the conceptualization of Erikson’s (1963, 1968, 1980, 1982) psychosocial developmental theory, with psychosocial developmental strength increasing throughout the lifespan (Darling-Fisher & Kline Leidy, 1988). It should be noted Jacobs and Boavssso (2009) found that current age did not impact individuals’ ability to positively adapt to an early parental death.

Due to the mixed results of research investigating gender (e.g., Appel et al., 2013; Berg et al., 2016; Brent et al., 2009; Geulayov et al., 2012; Gray et al., 2011; Kendler et al., 2002; Rostila et al., 2016) and type of parental death (e.g., Berg et al., 2016; Krattenmacher et al., 2012) as risk factors in the adjustment to early parental death, this study explored the impact of these demographic variables on psychosocial development. Furthermore, ethnicity has not been investigated in relation to the adaptive functioning of early parental death; thus, this study explored the impact of this demographic variable on psychosocial development as well.

Psychosocial development is hypothesized to positively correlate with social support due to expressive coping being a protective factor of adaptive functioning (e.g., Howell et al., 2015; Saler & Skolnick, 1992). Similarly, psychosocial development is hypothesized positively correlate with religiosity/spirituality due to spiritual beliefs and religious practices being protective factors of adjustment (e.g., Andrews & Marotta, 2005; Howell et al., 2015). Psychosocial development is hypothesized to negatively
correlate with grief due to the negative consequences for adaptive functioning (Dowdney, 2000; Melhem et al., 2011) and development (Biank & Werner-Lin, 2011; Webb, 2003; Worden, 1996) associated with severe grief reactions.

Due to the proposed relationship between psychosocial development and PTG as discussed previously (Eve & Kangas, 2015), this study explored the type of relationship between psychosocial development and PTG. Due to the mixed results regarding the relationship between grief and PTG (e.g., Davis et al., 1998; Gamino et al., 2000; Talbot, 2002) and the potential for an inverted-U-shaped relationship (e.g., Taku et al., 2015), this study also explored the relationship between PTG. Psychosocial development, social support, religiosity/spirituality, and grief levels are hypothesized to be predictive of PTG in the PTG theoretical model (Calhoun et al., 2010; Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004b). This relationship has been validated by researchers investigating the correlates of PTG (e.g., Helgeson et al., 2006; Meyerson et al., 2011; Michael & Cooper, 2013; Prati & Pietrantoni, 2009; Shakespeare-Finch & Lurie-Beck, 2014; Stanton et al., 2006; Vishnevsky et al., 2010), who have noted that the (a) seismicity of the event, which induces cognitive processes; (b) sociocultural context (i.e., distal and proximate sociocultural influences); and (c) the characteristics of the individual are factors that play a role in determining the degree to which an individual experiences PTG as discussed previously.

**Research Design**

The research design was a descriptive and correlational quantitative cross-sectional study. Data collection relied on an electronic survey research methodology (Gay, Mills, & Airasian, 2011) via Qualtrics. The self-report instruments were used to
investigate the psychosocial developmental impact of early parental death during adolescence in young adults, and to examine potential relationships between PTG, psychosocial development, religiosity/spirituality, social support, and grief. This study also utilized a quantitative causal-comparative design, which explores the relationships among variables that cannot be actively manipulated or controlled by the researcher (Gay et al., 2011).

Data Analysis

The statistical software program, Statistical Package for the Social Sciences (SPSS, Version 21), was utilized to manage and analyze the data. The data were evaluated in light of missing variables/cases and tests for statistical assumptions. To begin, descriptive statistics were computed for all variables to examine overall and sub-sample measures of central tendency. Descriptive statistics were utilized to determine whether the sample produced normal distributions and to review the mean, median, mode, standard deviation, variance, kurtosis, and skewness of the data to establish sample distribution characteristics. Along with descriptive information, correlational analyses were utilized to examine the relationships among all variables and descriptive information in early diagnostics.

Research Question 1

A one-tailed, two-sample t-test was conducted to determine statistically significant differences in psychosocial development attributes/strength (dependent variable measured by the MEPSI) between young adults who experienced the death of a parent during adolescence (loss group) and their non-bereaved peers (non-loss group); the independent variable was the death of the parent during adolescence.
The first statistical assumption for a two-sample t-test is that the dependent variable should be measured on a continuous scale; psychosocial development attributes/strength was measured by the MEPSI, which uses a continuous scale. The second assumption is the independent variable should consist of independent/categorical groups; the independent variable was the death of the parent during adolescence and there were two categorical sub-groups (i.e., loss group; non-loss group). The third assumption is independence of observations (i.e., no relationship between the observations in each group or between the groups); different participants are in each group. The other assumptions include: (a) no significant outliers; (b) the dependent variable should be normally distributed for each independent variable group; and (c) homogeneity of variances.

**Research Question 2**

Among young adults who experienced parental death during adolescence, two-sample t-tests or one-way ANOVAs with Tukey’s post hoc analyses were utilized to examine if statistically significant differences in psychosocial developmental attributes/strength (dependent variable measured by the MEPSI) exist among sub-groups. These sub-groups were organized by the independent variables, including demographic variables (e.g., gender, SES, ethnicity, age), type of parental death, gender of deceased parent, age when death occurred, and level of closeness to the deceased. Independent variables were demographic variables or variables related to the parental death. Variables were chosen to explore the impact they have on developmental strength; some variables (e.g., SES, type of parental death, age when death occurred, level of closeness to the deceased) were also chosen due to previous research supporting their impact on
adaptation to a parental death. Other variables (e.g., gender, gender of deceased parent) were found to have inconclusive relationships with adaptation to parental death (see Chapter 2). Other variables have not been explored in previous research (e.g., ethnicity, age). When utilizing a Bonferroni per comparison $\alpha (.05/8 = .006)$, analyses were conducted at the one-tailed level alpha level set at .006.

The statistical assumptions for a two-sample $t$-test are described above. Psychosocial development attributes/strength was measured by the MEPSI is the dependent variable for Research Question 2 as well, which is on a continuous scale. The independent variables are independent/categorical groups with different participants in each group for each independent variable as well.

The first statistical assumption for one-way ANOVAs is that dependent variables should be measured on a continuous scale; as noted, psychosocial development attributes/strength as measured by the MEPSI is the dependent variable for this research. The second assumption is that independent variables should consist of two or more independent/categorical groups; the independent variables were independent/categorical groups. The third assumption is that there is independence of observations (i.e., no relationship between the observations in each group or between the groups); different participants were in each group for each independent variable. The other assumptions include: (a) no significant outliers, (b) the dependent variable should be normally distributed for each independent variable group, and (c) homogeneity of variances.

**Research Question 3**

Correlations at the bivariate level were conducted to determine the relationships between the constructs measured (e.g., psychosocial development, social support,
religiosity/spirituality, grief, PTG). Pearson-product moment coefficients were computed to determine whether statistically significant relationships existed between these constructs. Psychosocial development was measured by the MEPSI. Social support was measured by the MSPSS. Religiosity/spirituality was measured by the Religious Involvement subscale and the total score of the Spiritual Transcendence (ST) component of the ASPIRES. Grief was measured by the Present Emotion and the Past Life Disruption subscales of the TRIG. PTG was measured by the PTGI-X. When utilizing a Bonferroni per comparison α (.05/21 = .002), analysis was conducted at the one-tailed level with the alpha level set at .002.

The first statistical assumption of Pearson-product moment correlations is that the two variables should be measured on a continuous scale; all variables were measured on a continuous scale. The second assumption is that the two variables have a linear relationship; scatterplots indicated linear relationships between variables. The third assumption is that there are no significant outliers and variables are normally distributed.

**Research Question 4**

Sequential multiple regression analyses were conducted to develop a predictive model of PTG (target variable) using the five predictor variables (e.g., psychosocial development, social support, religiosity, spirituality, current grief levels) in block two and controlling for demographic variables (e.g., gender, ethnicity, age), along with past grief levels (measured by the Past Life Disruption subscale of the TRIG) and years since death in block one. Psychosocial development was measured by the MEPSI, social support was measured by the MSPSS, religiosity was measured by the Religious Involvement subscale of the ASPIRES, spirituality was measured by the Spiritual Transcendence (ST)
component of the ASPIRES, and current grief levels were measured by the Present Emotion scale of the TRIG.

Variables in block one addressed pre-existing conditions (i.e., demographics) and variables concerning the death of the parent, while variables in block two addressed current states of mind. Due to gender and ethnicity being nominal data, dummy coding was utilized for these variables. Variables in block one are established correlates of PTG (e.g., Helgeson et al., 2006; Meyerson et al., 2011; Michael & Cooper, 2013; Prati & Pietrantoni, 2009; Shakespeare-Finch & Lurie-Beck, 2014; Stanton et al., 2006; Vishnevsky et al., 2010). Variables in block two were examined to see if they were predictive of PTG above and beyond the variables in block one; these variables are based on the PTG theoretical model (Calhoun et al., 2010; Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004b), which has been supported by research on the correlates of PTG. The PTG model notes the factors that play a role in determining the degree to which an individual experiences PTG: (a) seismicity of the event, which induces cognitive processes; (b) sociocultural context (i.e., distal and proximate sociocultural influences); and (c) the characteristics of the individual. Examining the relationship between grief and PTG can capture the seismicity of an event and address the limited and conflicting literature that examines this relationship (e.g., Calhoun & Tedeschi, 2001; Davis et al., 1998; Gamino et al., 2000; Taku et al., 2015; Talbot, 2002). Investigating religiosity and spirituality, a known correlate of PTG (e.g., Meyerson et al., 2011; Michael & Cooper, 2013; Milam et al., 2004; Prati & Pietrantoni, 2009; Shaw et al., 2005), can capture cognitive processes utilized during the aftermath of trauma, along with distal sociocultural influences and individual characteristics. Examining social support, a well-
established correlate of PTG (e.g., Aguirre, 2008; Meyerson et al., 2011; Prati & Pietrantoni, 2009; Wolchik et al., 2009; Wolfe & Ray, 2015), can also capture proximate sociocultural influences. Finally, examining the relationship between psychosocial development and PTG can capture individual characteristics and the sociocultural context, and investigate the already hypothesized relationship (see Chapter 2; Eve & Kangas, 2015).

The first statistical assumption for multiple regression is that the dependent variable are measured on a continuous scale; PTG was measured on a continuous scale. The second assumption is that there are two or more independent variables, which can be continuous or categorical data; all predictor variables were continuous, and gender and ethnicity were categorical data. The third assumption is that there is independence of errors, which was checked using the Durbin-Watson statistic. The fourth assumption is a linear relationship between the dependent variable and all of the independent variables, and the dependent variable and the independent variables as a whole; scatterplots and regression variable plots were created to check this assumption. Other assumptions include homoscedasticity, rather than multicollinearity, of data, absence of significant outliers or high leverage points, and residuals that are approximately normally distributed; residuals and their histogram were plotted, Tolerance/VIF values were obtained, and Cook’s distance and leverage statistics were obtained to examine these assumptions.

**Ethical Considerations**

Several precautions were taken to maintain ethical standards of research practice. The proposal of this study was submitted to and approved by William & Mary’s
Institutional Review Board (IRB). Data were collected via Qualtrics, a secure online survey tool. Participants were also fully informed of the purpose of this study within the consent form. Additionally, participants acknowledged understanding of their rights, potential risks and benefits of the study, and methods to maintain confidentiality within the consent form. Identifying information was not collected; no information that could potentially link the participants to their responses was received. Participation was voluntary; in the consent form, participants were informed of their right to discontinue the survey at any time with no penalty. Participants were also provided with a resource for grief and loss counseling within the consent form in the event that they became interested in further exploring their loss.

**Limitations**

A limitation of the study is the research methodology. The causal comparative and correlational research design do not indicate causal relationships between the variables investigated. When utilizing the Bonferroni correction for the analyses of the study, the chance for a type I error to occur decreases, but power is impacted and the chance for a type II error increases. Additionally, if an even larger sample size were obtained, a smaller effect size would have been needed to detect a difference between means. Due to the use of an electronic survey via Qualtrics, the participants might not have been in a controlled environment, which is a threat to external validity. Moreover, the amount of time and number of items needed to complete the survey might have caused testing fatigue. Similarly, the Flesch-Kincaid readability level of 5.8 might have challenged participants who possessed a lower reading level. Utilizing Qualtrics Panels allows the specification of particular characteristics of a sample. However, the use of
Qualtrics Panels restricts a sample to individuals with computers and access to the Internet. In addition, Qualtrics Panels does not perfectly represent the general population, impacting the generalizability of the study. However, Dixon et al. (2016) asserted that although Qualtrics Panels does not provide a random sample, it does offer greater demographic variability when compared to a student sample typically used in social science research. Although Qualtrics Panels aims to yield nationally representative samples, self-selection of participants may occur. Furthermore, the study is a retrospective study, examining an event that happened in adolescence as a young adult, and thus, participants are prone to recall bias. Additionally, the study of early parental death is very complex, and not all variables (e.g., risk and protective factors of adaptation, correlates of PTG) could be investigated. Despite these limitations, the explorations of these variables addressed gaps in the literature and could provide a foundation for future longitudinal and intervention studies.

**Summary**

The researcher investigated the long-term psychosocial developmental impact (as measured by the MEPSI) of early parental death during adolescence in young adults. Moreover, the relationships between psychosocial development (as measured by the MEPSI), social support (as measured by the MSPSS), religiosity/spirituality (as measured by the ASPIRES), grief (as measured by the TRIG), and PTG (as measured by the PTGI-X) were investigated. The study was a descriptive quantitative cross-sectional study utilizing an electronic survey research methodology via Qualtrics. This causal-comparative design was statistically analyzed with descriptive statistics, chi-squares, $t$-tests, ANOVAs, and sequential multiple regression via SPSS. Ethical standards were
maintained throughout the data gathering and analysis, and limitations will inform future research. The study addressed the gaps in literature related to the lack of investigation of positive outcomes among individuals who experienced early parental death, and corresponding developmental implications, especially when the death occurs in adolescence. The results of the study could enrich current understanding and treatment modalities of grief and loss, provide valuable information to current professional counselors and supervisors working with individuals who have experienced early parental death during adolescence, and assist counselor educators preparing future professional counselors to work with clients who experience grief and loss. The next chapter will describe the results of the study.
CHAPTER FOUR: ANALYSIS & RESULTS

This chapter describes the results of the study. Descriptive statistics of the demographic information of the sample and the instruments used are reported. Additionally, correlations among the variables utilized in this study and the statistical analysis of each hypothesis are reported. Statistical analyses included correlations, chi-squares, two-sample $t$-tests, one-way ANOVAs, and sequential multiple linear regressions. The commonly used alpha level for educational and psychological research ($p < .05$; Gall et al., 2007) was utilized as the significance level for the study’s analyses prior to Bonferroni corrections. The total sample ($N = 256$) included 128 participants in the non-loss group (young adults [20-29 years of age] who have not experienced a parental death during their adolescence [13-19 years of age]) and 128 participants in the loss group (young adults [20-29 years of age] who experienced a parental death during their adolescence [13-19 years of age]). Qualtrics Panels deemed these 256 participants as quality responses. For the loss group, Qualtrics Panels eliminated 163 participants due to failing quality checks. For the non-loss group, Qualtrics Panels eliminated 253 participants due to failed quality checks.

**Demographic Information**

The demographic information collected in the survey for both the loss and non-loss groups included: (a) age, (b) gender, (c) ethnicity, and (d) socioeconomic status (SES). Additional information was obtained for the non-loss group: (a) gender of
deceased parent, (b) age when parent died, (c) years since parental death, (d) cause of parental death, and (e) level of closeness to deceased parent. Sub-demographic groups with fewer than 10 participants were not included in data analyses of the research questions due to the limitation of power and interpretation of groups with small sample sizes; these sub-demographic groups included: (a) transgender and queer participant groups; (b) Asian, American Indian or Alaskan Native, two or more races/multiracial, and unknown race/ethnicity participant groups; (c) undetermined/unknown cause of parental death participant group; and (d) the participant group who noted that their relationship with their deceased parent was not as close as most of their relationships.

Age

The age range criterion for participants was 20 to 29 years of age. Participants were asked to select their age from this range. For the total sample (N = 256), ages ranged from 20 to 29 with a mean age of 24.89 (SD = 2.78). The distribution of the total sample was negatively skewed with a skewness value of -.21 and a standard error of skewness of .15. The total sample was significantly platykurtic with a kurtosis value of -1.13 and a standard error of kurtosis of .30, indicating a non-normal distribution for age. A two-samples t-test was conducted to compare the mean age of the groups. With an alpha level of .05, the test indicated that the non-loss group mean (24.94) was non-significantly higher than the loss group mean (24.84), t(254) = 29, p = .77. Thus, the mean ages of the non-loss and loss groups were non-significantly different from each other. Table 2 illustrates the demographic information of the sample for age.
Table 2

Demographic Information for Age

<table>
<thead>
<tr>
<th>Group</th>
<th>M(SD)</th>
<th>Skewness(SE_s)</th>
<th>Kurtosis(SE_k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>24.89(2.78)</td>
<td>-.21(.15)</td>
<td>-1.13(.30)*</td>
</tr>
<tr>
<td>Non-Loss</td>
<td>24.94(2.79)</td>
<td>-.24(.21)</td>
<td>-1.15(.43)*</td>
</tr>
<tr>
<td>Loss</td>
<td>24.84(2.79)</td>
<td>-.17(.21)</td>
<td>-1.11(.43)*</td>
</tr>
</tbody>
</table>

*indicates significant skewness or kurtosis

Note. M = Mean, SD = Standard Deviation, SE_s = Standard Error of Skewness, SE_k = Standard Error of Kurtosis

**Non-loss group.** For the non-loss group (n = 128), participants’ ages ranged from 20 to 29 with a mean age of 24.94 (SD = 2.79). The distribution for the non-loss group was negatively skewed with a skewness value of -.24 and a standard error of skewness of .21. The non-loss group was significantly platykurtic with a kurtosis value of -1.15 and a standard error of kurtosis of .43, indicating a non-normal distribution for age.

**Loss group.** For the loss group (n = 128), the ages ranged from 20 to 29 with a mean age of 24.84 (SD = 2.79). The distribution for the non-loss group was negatively skewed with a skewness value of -.17 and a standard error of skewness of .21. The non-loss group was significantly platykurtic with a kurtosis value of -1.11 and a standard error of kurtosis of .43, indicating a non-normal distribution for age.

**Gender**

Participants were asked to select their gender with the following options: (a) male, (b) female, (c) transgender, or (d) other (with text entry). For the total sample (N = 256), 47 participants (18.4%) identified as males, 205 participants (80.1%) identified as females, three participants (1.2%) identified as transgender, and one participant (.4%) identified as queer by selecting the other option. A chi-square test of homogeneity was conducted to determine whether the gender distribution of the non-loss and loss groups
was significantly different. With an alpha equal to .05, the chi-square of these frequencies was statistically non-significant, $\chi^2(3) = 4.93, p = .18$. Thus, the gender distributions of the non-loss and loss groups were non-significantly different. Table 3 illustrates the demographic information of the sample for gender.

Table 3

<table>
<thead>
<tr>
<th>Demographic Information for Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td><strong>Total Sample</strong></td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Transgender</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td><strong>Non-Loss</strong></td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td><strong>Loss</strong></td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Transgender</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

Note. n = sample size; participant who selected the other option identified as queer

**Non-loss group.** For the non-loss group (n = 128), participants only identified as either male or female. Twenty-one participants (16.4%) identified as male, and 107 participants (83.6%) identified as female.

**Loss group.** For the loss group (n = 128), 26 participants (20.3%) identified as males, 98 participants (76.6%) identified as females, three participants (2.3%) identified as transgender, and one participant identified as queer (.8%). As discussed above, when examining gender, the sub-demographic groups of transgender and queer were not included in data analyses of the research questions.
Race/Ethnicity

Participants were asked to select their race/ethnicity with the following options:
(a) White; (b) Hispanic, Latino, or Spanish; (c) Black or African American; (d) Asian; (e) American Indian or Alaskan Native; (f) Middle Eastern or North African; (g) Native Hawaiian or Other Pacific Islander; (h) two or more races/multiracial; (i) race/ethnicity unknown; and (h) other (with text entry). For the total sample (N = 256), 162 participants (63.3%) identified as White; 23 participants (9%) identified as Hispanic, Latino, or Spanish; 35 participants (13.7%) identified as Black or African American; 11 participants (4.3%) identified as Asian; 9 participants (3.5%) identified as American Indian or Alaskan Native; 15 participants (5.9%) identified as two or more races/multiracial; and one participant (.4%) selected unknown race/ethnicity. Chi-square test of homogeneity was conducted to determine whether the race/ethnicity distribution of the non-loss and loss groups were significantly different. With an alpha equal to .05, the chi-square of these frequencies was statistically non-significant, $\chi^2(6) = 7.51, p = .28$. Thus, the race/ethnicity distributions of the non-loss and loss groups were non-significantly different. Table 4 illustrates the demographic information of the sample for race/ethnicity.
Table 4

**Demographic Information for Race/Ethnicity**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Sample</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>162</td>
<td>63.3</td>
</tr>
<tr>
<td>Hispanic, Latino, or Spanish</td>
<td>23</td>
<td>9.0</td>
</tr>
<tr>
<td>Black or African American</td>
<td>35</td>
<td>13.7</td>
</tr>
<tr>
<td>Asian</td>
<td>11</td>
<td>4.3</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>9</td>
<td>3.5</td>
</tr>
<tr>
<td>Two or more races/multiracial</td>
<td>15</td>
<td>5.9</td>
</tr>
<tr>
<td>Unknown race/ethnicity</td>
<td>1</td>
<td>.4</td>
</tr>
<tr>
<td><strong>Non-Loss</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>84</td>
<td>65.6</td>
</tr>
<tr>
<td>Hispanic, Latino, or Spanish</td>
<td>8</td>
<td>6.3</td>
</tr>
<tr>
<td>Black or African American</td>
<td>14</td>
<td>10.9</td>
</tr>
<tr>
<td>Asian</td>
<td>6</td>
<td>4.7</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>6</td>
<td>4.7</td>
</tr>
<tr>
<td>Two or more races/multiracial</td>
<td>10</td>
<td>7.8</td>
</tr>
<tr>
<td><strong>Loss</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>78</td>
<td>60.9</td>
</tr>
<tr>
<td>Hispanic, Latino, or Spanish</td>
<td>15</td>
<td>11.7</td>
</tr>
<tr>
<td>Black or African American</td>
<td>21</td>
<td>16.4</td>
</tr>
<tr>
<td>Asian</td>
<td>5</td>
<td>3.9</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>Two or more races/multiracial</td>
<td>5</td>
<td>3.9</td>
</tr>
<tr>
<td>Unknown race/ethnicity</td>
<td>1</td>
<td>.8</td>
</tr>
</tbody>
</table>

*Note.* n = sample size

**Non-loss group.** For the non-loss group (n = 128), 84 participants (65.6%) identified as White; eight participants (6.3%) identified as Hispanic, Latino, or Spanish; 14 participants (10.9%) identified as Black or African American; six participants (4.7%) identified as Asian; six participants (4.7%) identified as American Indian or Alaskan Native; and 10 participants (7.8%) identified as two or more races/multiracial.

**Loss group.** For the loss group (n = 128), 78 participants (60.9%) identified as White; 15 participants (11.7%) identified as Hispanic, Latino, or Spanish; 21 participants (16.4%) identified as Black or African American; five participants (3.9%) identified as Asian; three participants (2.3%) identified as American Indian or Alaskan Native; five
participants (3.9%) identified as two or more races/multiracial; and one participant (.8%) selected unknown race/ethnicity. As discussed previously, when examining ethnicity, the sub-demographic groups of Asian, American Indian or Alaskan Native, two or more races/multiracial, and unknown race/ethnicity were not included in data analyses of the research questions.

**SES**

Participants were asked to select their SES with the following options: (a) don’t meet basic expenses; (b) just meet basic expenses; (c) meet needs with a little left; and (d) live comfortably. For the total sample (N = 256), 36 participants (14.1%) identified not meeting basic expenses, 93 participants (36.3%) identified just meeting basic expenses, 84 participants (32.8%) identified meeting basic expenses with a little left, and 43 participants (16.8%) identified as living comfortably. Chi-square test of homogeneity was conducted to determine whether the SES distribution of the non-loss and loss groups were significantly different. With an alpha equal to .05, the chi-square of these frequencies was statistically non-significant, $\chi^2(3) = .17, p = .67$. Thus, the SES distribution from the non-loss and loss groups was non-significantly different. Table 5 illustrates the demographic information of the sample for SES.
Table 5

Demographic Information for SES

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Sample</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t meet basic expenses</td>
<td>36</td>
<td>14.1</td>
</tr>
<tr>
<td>Just meet basic expenses</td>
<td>93</td>
<td>36.3</td>
</tr>
<tr>
<td>Meet needs with a little left</td>
<td>84</td>
<td>32.8</td>
</tr>
<tr>
<td>Live comfortably</td>
<td>43</td>
<td>16.8</td>
</tr>
<tr>
<td><strong>Non-Loss</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t meet basic expenses</td>
<td>12</td>
<td>9.4</td>
</tr>
<tr>
<td>Just meet basic expenses</td>
<td>45</td>
<td>35.2</td>
</tr>
<tr>
<td>Meet needs with a little left</td>
<td>50</td>
<td>39.1</td>
</tr>
<tr>
<td>Live comfortably</td>
<td>21</td>
<td>16.4</td>
</tr>
<tr>
<td><strong>Loss</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don’t meet basic expenses</td>
<td>24</td>
<td>18.8</td>
</tr>
<tr>
<td>Just meet basic expenses</td>
<td>48</td>
<td>37.5</td>
</tr>
<tr>
<td>Meet needs with a little left</td>
<td>34</td>
<td>26.6</td>
</tr>
<tr>
<td>Live comfortably</td>
<td>22</td>
<td>17.2</td>
</tr>
</tbody>
</table>

*Note.* SES = Socioeconomic Status, n = sample size

**Non-loss group.** For the non-loss group (n = 128), 12 participants (9.4%) identified not meeting basic expenses, 45 participants (35.2%) identified just meeting basic expenses, 50 participants (39.1%) identified meeting basic expenses with a little left, and 21 participants (16.4%) identified as living comfortably.

**Loss group.** For the loss group (n = 128), 24 participants (18.8%) identified not meeting basic expenses, 48 participants (37.5%) identified just meeting basic expenses, 34 participants (26.6%) identified meeting basic expenses with a little left, and 22 participants (17.2%) identified as living comfortably.

**Other Loss group Demographic Information**

Additional information was obtained for the loss group (n = 128). The information included: (a) gender of deceased parent, (b) age when parent died, (c) years since the parental death, (d) cause of parental death, and (e) level of closeness to deceased parent.
**Gender of deceased parent.** Participants were asked to select which parent died from the following options: (a) biological father and (b) biological mother. Eighty-eight participants (68.8%) selected that their biological father died. Forty participants (31.3%) selected that their biological mother died. Table 6 illustrates demographic information of the loss group for gender of deceased parent.

Table 6

<table>
<thead>
<tr>
<th>Deceased Parent</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological father</td>
<td>88</td>
<td>68.8</td>
</tr>
<tr>
<td>Biological mother</td>
<td>40</td>
<td>31.3</td>
</tr>
</tbody>
</table>

*Note. n = sample size*

**Age when parent died.** The age range criterion for when the parental death occurred was 13 to 19 years of age. Participants were asked to indicate their age when at the time their parent died. Ages ranged from 13 to 19, with a mean age of 15.63 (SD = 2.17). The distribution was positively skewed with a skewness value of .38 and a standard error of skewness of .21. Additionally, the distribution was significantly platykurtic, with a kurtosis value of -1.29 and a standard error of kurtosis of .43, indicating a non-normal distribution for age. Table 7 illustrates demographic information of the loss group for age when parent died and years since parental death.

Table 7

<table>
<thead>
<tr>
<th>Category</th>
<th>M(SD)</th>
<th>Skewness(SEₜ)</th>
<th>Kurtosis(SEₖ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age when parent died</td>
<td>15.63(2.17)</td>
<td>.38(.21)</td>
<td>-1.29(.43)*</td>
</tr>
<tr>
<td>Years since parental death</td>
<td>9.21(3.14)</td>
<td>.07(.21)</td>
<td>-.76(.43)</td>
</tr>
</tbody>
</table>

*Note. M = Mean, SD = Standard Deviation, SEₜ = Standard Error of Skewness, SEₖ = Standard Error of Kurtosis, * indicates significant skewness or kurtosis*
**Years since parental death.** Utilizing the current age of participants and the age when the parental death occurred, the number of years since the parental death was calculated. Years ranged from 2 to 16, with a mean of 9.21 years ($SD = 3.14$). The distribution was positively skewed with a skewness value of .07 and a standard error of skewness of .21. Additionally, the distribution was platykurtic with a kurtosis value of -.76 and a standard error of kurtosis of .43. Neither the skewness nor kurtosis were significant, indicating a normal distribution for years since parental death. Table 7 illustrates demographic information of the loss group for years since parental death.

**Cause of parental death.** Participants were asked to select the cause of their parent’s death from the following options: (a) expected natural cause (cancer, old age, etc.); (b) unexpected natural cause (sudden cardiac arrest, disease, etc.); (c) accident (car accident, drug overdose, etc.); (d) homicide (e.g., murder, manslaughter); (e) suicide; (f) undetermined/unknown; and (g) other (with text entry). Twenty-two participants (17.2%) selected expected natural cause, 39 participants (30.5%) selected unexpected natural cause, 32 participants (25%) selected accident, 10 participants (7.8%) selected homicide, 16 participants (12.5%) selected suicide, and nine participants (7%) selected undetermined/unknown. As discussed previously, when examining the cause of parental death, the sub-demographic group of those whose parental death was undetermined/unknown was not included in data analyses. Table 8 illustrates demographic information of the loss group for cause of parental death.
Table 8

Demographic Information for Cause of Parental Death

<table>
<thead>
<tr>
<th>Cause of Parental Death</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected natural cause (cancer, old age, etc.)</td>
<td>22</td>
<td>17.2</td>
</tr>
<tr>
<td>Unexpected natural cause (sudden cardiac arrest, disease, etc.)</td>
<td>39</td>
<td>30.5</td>
</tr>
<tr>
<td>Accident (car accident, drug overdose, etc.)</td>
<td>32</td>
<td>25.0</td>
</tr>
<tr>
<td>Homicide (e.g., murder, manslaughter)</td>
<td>10</td>
<td>7.8</td>
</tr>
<tr>
<td>Suicide</td>
<td>16</td>
<td>12.5</td>
</tr>
<tr>
<td>Undetermined/unknown</td>
<td>9</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Note. n = sample size

Level of closeness to deceased parent. Participants were asked to select the level of closeness they had with their deceased parent from the following options: (a) closer than any relationship I've ever had before or since, (b) closer than most relationships I've had with other people, (c) about as close as most of my relationships with others, (d) not as close as most of my relationships, or (e) not very close at all. Forty-four participants (34.4%) selected closer than any relationships I've had with other people, 50 participants (39.1%) selected closer than most relationships I've had with other people, 15 participants (11.7%) selected about as close as most of my relationships with others, eight participants (6.3%) selected not as close as most of my relationships, and 11 participants (8.6%) selected not very close at all. As discussed previously, when examining the level of closeness to deceased parent, the sub-demographic group of those who selected not as close as most of my relationships was not included in data analyses. Table 9 illustrates demographic information of the loss group for level of closeness to deceased parent.
Table 9

**Demographic Information for Level of Closeness to Deceased Parent**

<table>
<thead>
<tr>
<th>Level of closeness to deceased parent</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closer than any relationship I've ever had before or since</td>
<td>44</td>
<td>34.4</td>
</tr>
<tr>
<td>Closer than most relationships I've had with other people</td>
<td>50</td>
<td>39.1</td>
</tr>
<tr>
<td>About as close as most of my relationships with others</td>
<td>15</td>
<td>11.7</td>
</tr>
<tr>
<td>Not as close as most of my relationships</td>
<td>8</td>
<td>6.3</td>
</tr>
<tr>
<td>Not very close at all</td>
<td>11</td>
<td>8.6</td>
</tr>
</tbody>
</table>

*Note. n = sample size*

**Instrument Descriptive Statistics**

Instruments utilized in the study included the following: (a) Modified Erikson Psychosocial Stage Inventory (MEPSI; Darling-Fisher & Kline Leidy, 1988); (b) Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988); (c) Assessment of Spirituality and Religious Sentiments (ASPIRES; Piedmont, 2012); (d) Texas Revised Inventory of Grief (TRIG; Faschingbauer et al., 1987); and (e) Posttraumatic Growth Inventory Expanded (PTGI-expanded [PTGI-X]; Tedeschi et al., 2017). Both loss- and non-loss groups took the MEPSI, MSPSS, and ASPIRES instruments. Additionally, the loss group took the TRIG and PTGI-X instruments. Table 10 illustrates the descriptive statistics and alpha reliabilities for the instruments utilized in this study.
Table 10

Descriptive Statistics and Reliability Coefficients for the MEPSI, MSPSS, ASPIRES, TRIG, and PTGI-X

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Total Sample</th>
<th>Non-Loss Group</th>
<th>Loss Group</th>
<th>Total Sample</th>
<th>Non-Loss Group</th>
<th>Loss Group</th>
<th>Total Sample</th>
<th>Non-Loss Group</th>
<th>Loss Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEPSI (global scale)</strong></td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>3.39(.63)</td>
<td>-.04(.15)</td>
<td>-.46(.30)</td>
<td>.96</td>
<td>3.54(.61)</td>
<td>-.21(.21)</td>
<td>-.58(.43)</td>
<td>.96</td>
<td>3.24(.61)</td>
</tr>
<tr>
<td>Non-Loss Group</td>
<td>3.54(.61)</td>
<td>-.21(.21)</td>
<td>-.58(.43)</td>
<td>.96</td>
<td>3.51(1.32)</td>
<td>-.92(.21)</td>
<td>.45(.43)</td>
<td>.91</td>
<td>4.98 (1.25)</td>
</tr>
<tr>
<td>Loss Group</td>
<td>3.24(.61)</td>
<td>.12(.21)</td>
<td>-.08(.43)</td>
<td>.96</td>
<td>3.31(1.29)</td>
<td>-.81(.15)*</td>
<td>.33(.30)</td>
<td>.90</td>
<td>4.98 (1.25)</td>
</tr>
<tr>
<td><strong>MSPSS (total score)</strong></td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>5.15(1.29)</td>
<td>-.81(.15)*</td>
<td>.33(.30)</td>
<td>.90</td>
<td>5.31(1.32)</td>
<td>-.92(.21)*</td>
<td>.45(.43)</td>
<td>.91</td>
<td>4.98 (1.25)</td>
</tr>
<tr>
<td>Non-Loss Group</td>
<td>5.31(1.32)</td>
<td>-.92(.21)*</td>
<td>.45(.43)</td>
<td>.91</td>
<td>4.98 (1.25)</td>
<td>-.78(.21)*</td>
<td>.42(.43)</td>
<td>.89</td>
<td>4.98 (1.25)</td>
</tr>
<tr>
<td>Loss Group</td>
<td>4.98 (1.25)</td>
<td>-.78(.21)*</td>
<td>.42(.43)</td>
<td>.89</td>
<td>4.98 (1.25)</td>
<td>-.78(.21)*</td>
<td>.42(.43)</td>
<td>.89</td>
<td>4.98 (1.25)</td>
</tr>
<tr>
<td><strong>ASPIRES – RI</strong></td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>25.32(11.79)</td>
<td>.23(.15)</td>
<td>-1.20(.30)*</td>
<td>.92</td>
<td>26.58(11.40)</td>
<td>.11(.21)</td>
<td>-1.23(.43)*</td>
<td>.91</td>
<td>24.06(12.10)</td>
</tr>
<tr>
<td>Non-Loss Group</td>
<td>26.58(11.40)</td>
<td>.11(.21)</td>
<td>-1.23(.43)*</td>
<td>.91</td>
<td>27.89(17.13)</td>
<td>-.96(.21)*</td>
<td>.79(.43)</td>
<td>.83</td>
<td>27.89(6.95)</td>
</tr>
<tr>
<td>Loss Group</td>
<td>24.06(12.10)</td>
<td>.38(.21)</td>
<td>-1.12(.43)*</td>
<td>.93</td>
<td>27.89(6.95)</td>
<td>-.96(.21)*</td>
<td>.79(.43)</td>
<td>.83</td>
<td>27.89(6.95)</td>
</tr>
<tr>
<td><strong>ASPIRES – ST</strong></td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>75.84(17.58)</td>
<td>-.46(.15)*</td>
<td>-.35(.30)</td>
<td>.92</td>
<td>78.30(16.37)</td>
<td>-.62(.21)*</td>
<td>-.13(.43)</td>
<td>.92</td>
<td>73.38(17.58)</td>
</tr>
<tr>
<td>Non-Loss Group</td>
<td>78.30(16.37)</td>
<td>-.62(.21)*</td>
<td>-.13(.43)</td>
<td>.92</td>
<td>75.84(17.58)</td>
<td>-.46(.15)*</td>
<td>-.35(.30)</td>
<td>.92</td>
<td>75.84(17.58)</td>
</tr>
<tr>
<td>Loss Group</td>
<td>73.38(17.58)</td>
<td>-.30(.21)</td>
<td>-.43(.43)</td>
<td>.92</td>
<td>75.84(17.58)</td>
<td>-.46(.15)*</td>
<td>-.35(.30)</td>
<td>.92</td>
<td>75.84(17.58)</td>
</tr>
<tr>
<td><strong>TRIG – Past Disruption</strong></td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
</tr>
<tr>
<td>Loss Group</td>
<td>27.89(6.95)</td>
<td>-.96(.21)*</td>
<td>.79(.43)</td>
<td>.83</td>
<td>73.38(17.58)</td>
<td>-.30(.21)</td>
<td>-.43(.43)</td>
<td>.92</td>
<td>73.38(17.58)</td>
</tr>
<tr>
<td><strong>TRIG – Present Emotion</strong></td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
</tr>
<tr>
<td>Loss Group</td>
<td>46.90(10.08)</td>
<td>-.70(.21)*</td>
<td>.49(.43)</td>
<td>.88</td>
<td>75.84(17.58)</td>
<td>-.46(.15)*</td>
<td>-.35(.30)</td>
<td>.92</td>
<td>75.84(17.58)</td>
</tr>
<tr>
<td><strong>PTGI-X (total score)</strong></td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
<td>Skewness(SEₘ)</td>
<td>Kurtosis(SEₖ)</td>
<td>α</td>
<td>M(SD)</td>
</tr>
<tr>
<td>Loss Group</td>
<td>67.84(27.54)</td>
<td>-.18(.21)</td>
<td>-.47(.43)</td>
<td>.94</td>
<td>73.38(17.58)</td>
<td>-.30(.21)</td>
<td>-.43(.43)</td>
<td>.92</td>
<td>73.38(17.58)</td>
</tr>
</tbody>
</table>

Note. MEPSI = Modified Erikson Psychosocial Stage Inventory, MSPSS = Multidimensional Scale of Perceived Social Support, ASPIRES – RI = Assessment of Spirituality and Religious – Religious Involvement, ASPIRES – ST Total = Assessment of Spirituality and Religious Sentiments – Spiritual Transcendence Total, TRIG = Texas Revised Inventory of Grief, PTGI-X = Posttraumatic Growth Inventory – Expanded, M = Mean, SD = Standard Deviation, SEₘ = Standard Error of Skewness, SEₖ = Standard Error of Kurtosis, α = Cronbach’s alpha reliability coefficient

*indicates significant skewness or kurtosis

MEPSI

The MEPSI is an 80-item instrument with eight subscales and was used to measure the strength of psychosocial developmental attributes that arise from progression through Erikson’s (1982) eight stages of development (Darling-Fisher & Kline Leidy, 1988). The statements were randomly ordered and utilized a 5-point Likert scale (Almost
Always True to Hardly Ever True). A high score (4-5) reflects a predominance of positive attributes, and a low score (1-2) reflects a predominance of negative attributes (i.e., the higher the score, the stronger the positive attributes). For the total sample (N = 256), the Cronbach’s alpha reliability coefficient for the MEPSI as a global scale was .96. Coefficients for the eight subscales, which correspond to the eight stages of development, were as follows: (a) .82 for the trust subscale; (b) .82 for the autonomy subscale; (c) .76 for the initiative subscale; (d) .87 for the industry subscale; (e) .86 for the identity subscale; (f) .71 for the intimacy subscale; (g) .69 for the generativity subscale; (h) and .70 for the ego integrity subscale.

The total score of the instrument (global scale) was utilized for this study. For the total sample (N = 256), the total scores ranged from 1.73 to 4.79 with a mean of 3.39 (SD = .63); higher scores represent higher levels of psychosocial developmental strength, and lower scores represent lower levels of psychosocial developmental strength. The distribution was negatively skewed with a skewness value of -.04 and standard error of skewness of .15. Additionally, the distribution was platykurtic with a kurtosis value of -.46 and standard error of kurtosis of .30. Neither the skewness nor kurtosis were significant, indicating a normal distribution for the MEPSI global scale score.

Non-loss group. For the non-loss group (n = 128), the Cronbach’s alpha reliability coefficient for the MEPSI as a global scale was .96. The total scores ranged from 1.89 to 4.78 with a mean of 3.54 (SD = .61). The distribution was negatively skewed with a skewness value of -.21 and standard error of skewness of .21. Additionally, the distribution was platykurtic with a kurtosis value of -.58 and standard
error of kurtosis of .43. Neither the skewness nor kurtosis were significant, indicating a normal distribution for the total score.

**Loss group.** For the loss group (n = 128), the Cronbach’s alpha reliability coefficient for the MEPSI as a global scale was .96. The total scores ranged from 1.73 to 4.79 with a mean of 3.24 (SD = .61). The distribution was positively skewed with a skewness value of .12 and standard error of skewness of .21. Additionally, the distribution was platykurtic with a kurtosis value of -.08 and standard error of kurtosis of .43. Neither the skewness nor kurtosis were significant, indicating a normal distribution for the total score.

**MSPSS**

The MSPSS is a 12-item instrument used to measure social support (Zimet et al., 1988). Each item is rated on a 7-point Likert-type scale, ranging from *very strongly disagree* to *very strongly agree*. The instrument has three subscales (i.e., family, friends, significant other) consisting of four items in each subscale. For the total sample (N = 256), the Cronbach’s alpha reliability coefficient for the MSPSS total scale was .90. Coefficients for the three subscales were as follows: (a) .93 for the family subscale; (b) .96 for the friends subscale; and (c) .94 for the significant other subscale.

The total score of the instrument was utilized for this study. For the total sample (N = 256), the total scores ranged from 1 to 7 with a mean of 5.15 (SD = 1.29); higher scores represent higher levels of social support, and lower scores represent lower levels of social support. The distribution was negatively skewed with a skewness value of -.81 and standard error of skewness of .15. Additionally, the distribution was leptokurtic with
a kurtosis value of .33 and standard error of kurtosis of .30. The skewness was significant, indicating a non-normal distribution for the total score of the MSPSS.

**Non-loss group.** For the non-loss group (n = 128), the Cronbach’s alpha reliability coefficient for the total score of the MSPSS was .91. The total scores ranged from 1 to 7 with a mean of 5.31 (SD = 1.32). The distribution was negatively skewed with a skewness value of -.92 and standard error of skewness of .21. Additionally, the distribution was leptokurtic with a kurtosis value of .45 and standard error of kurtosis of .43. The skewness was significant, indicating a non-normal distribution for the total score of the MSPSS.

**Loss group.** For the loss group (n = 128), the Cronbach’s alpha reliability coefficient for the total score of the MSPSS was .89. The total scores ranged from 1.5 to 7 with a mean of 4.98 (SD = 1.25). The distribution was negatively skewed with a skewness value of -.78 and standard error of skewness of .21. Additionally, the distribution was leptokurtic with a kurtosis value of .42 and standard error of kurtosis of .43. The skewness was significant, indicating a non-normal distribution for the total score of the MSPSS.

**ASPIRES**

The ASPIRES (Piedmont, 2012) was used to measure spirituality/religiosity (Religious Involvement [RI] subscale and the Total Score of the Spiritual Transcendence [ST] component). The RI subscale has eight items and contained different response categories (items with more response options had larger variances); thus, scores on each of the items were first standardized and then aggregated to a total score (Piedmont, 2012). The RI subscale is part of the Religious Sentiments component of the ASPIRES, which
also has a Religious Crisis subscale (i.e., the last four items of the component). The ST component has 23 items and items are rated from 1 (*strongly disagree*) to 5 (*strongly agree*) with three sub-components (i.e., Prayer fulfillment, Universality, Connectedness). The RI subscale had a Cronbach’s alpha reliability of .92. The Religious Crisis subscale had an alpha reliability of .82. The alpha reliabilities for the ST sub-components included .95 for Prayer fulfillment, .79 for Universality, .38 for Connectedness, and .92 for the Total Score.

The RI subscale and the Total Score of the ST component were utilized for this study. For the total sample (N = 256), the total scores of RI ranged from 8 to 49 with a mean of 25.32 (SD = 11.79); higher scores represent higher levels of religiosity or religious involvement and lower scores represent lower levels of religiosity or religious involvement. The distribution was positively skewed with a skewness value of .23 and standard error of skewness of .15. Additionally, the distribution was platykurtic with a kurtosis value of -1.20 and standard error of kurtosis of .30. The kurtosis was significant, indicating a non-normal distribution for the total score of RI.

The Total Score of ST ranged from 29 to 109 with a mean of 75.84 (SD = 17.13); higher scores represent higher levels of spirituality or spiritual transcendence and lower scores represent lower levels of spirituality or spiritual transcendence. The distribution was negatively skewed with a skewness value of -.46 and standard error of skewness of .15. Additionally, the distribution was platykurtic with a kurtosis value of -.35 and standard error of kurtosis of .30. The skewness was significant, indicating a non-normal distribution for the total score of ST.
Non-loss group. For the non-loss group (n = 128), Religious Involvement had a Cronbach’s alpha reliability of .91. The alpha reliability for the Total Score of ST was .92. The total scores of RI ranged from 8 to 49 with a mean of 26.58 (SD = 11.40). The distribution was positively skewed with a skewness value of .11 and standard error of skewness of .21. Additionally, the distribution was platykurtic with a kurtosis value of -1.23 and standard error of kurtosis of .43. The kurtosis was significant, indicating a non-normal distribution for the total score of RI.

The Total Score of ST ranged from 34 to 108 with a mean of 78.30 (SD = 16.37). The distribution was negatively skewed with a skewness value of -.62 and standard error of skewness of .21. Additionally, the distribution was platykurtic with a kurtosis value of -.13 and standard error of kurtosis of .43. The skewness was significant, indicating a non-normal distribution for the total score of ST.

Loss group. For the loss group (n = 128), Religious Involvement had a Cronbach’s alpha reliability of .93. The alpha reliability for the Total Score of ST was .92. The total scores of RI ranged from 8 to 49 with a mean of 24.06 (SD = 12.10). The distribution was positively skewed with a skewness value of .38 and standard error of skewness of .21. Additionally, the distribution was platykurtic with a kurtosis value of -1.12 and standard error of kurtosis of .43. The kurtosis was significant, indicating a non-normal distribution for the total score of RI.

The Total Score of ST ranged from 29 to 109 with a mean of 73.38 (SD = 17.58). The distribution was negatively skewed with a skewness value of -.30 and standard error of skewness of .21. Additionally, the distribution was platykurtic with a kurtosis value of
-.43 and standard error of kurtosis of .43. Neither the skewness nor kurtosis was significant, indicating a normal distribution for the total score of ST.

**TRIG**

The TRIG (Faschingbauer et al., 1987), a 21-item, two-scale, Likert-type measure, was used to measure grief levels (Past Life Disruption subscale; Present Emotion scale). Items were based on a 5-point Likert scale (*Completely True* to *Completely False*), with 13 items measuring present grief (the Present Emotion scale) and eight items measuring past disruption due to loss (the Past Life Disruption subscale). Mean scores for each subscale ranged from 1 to 5; higher scores indicate less intense grief responses. The Past Life Disruption subscale had a Cronbach’s alpha coefficient alpha of .83. The Present Emotion scale had a coefficient alpha of .88.

Only the loss group (n = 128) took the TRIG. The Past Life Disruption subscale and the Present Emotion scale were utilized for this study. The total scores of the Past Life Disruption subscale ranged from 8 to 40 with a mean of 27.89 ($SD = 6.95$); higher scores represent lower levels of grief symptoms, and lower scores represent higher levels of grief symptoms. The distribution was negatively skewed with a skewness value of - .96 and standard error of skewness of .21. Additionally, the distribution was leptokurtic with a kurtosis value of .79 and standard error of kurtosis of .43. The skewness was significant, indicating a non-normal distribution for the total score of the Past Life Disruption subscale.

The total scores of the Present Emotion scale ranged from 16 to 65 with a mean of 46.90 ($SD = 10.08$); higher scores represent lower levels of grief symptoms, and lower scores represent higher levels of grief symptoms. The distribution was negatively
skewed with a skewness value of -.70 and standard error of skewness of .21. Additionally, the distribution was leptokurtic with a kurtosis value of .49 and standard error of kurtosis of .43. The skewness was significant, indicating a non-normal distribution for the total score of the Present Emotion scale.

**PTGI-X**

The PTGI-X (Tedeschi et al., 2017) is a 25-item inventory used to measure posttraumatic growth (PTG). Items are on a Likert-scale (0 = *I did not experience this change as a result of my parent’s death* to 5 = *I experienced this change to a very great degree as a result of my parent’s death*). The score range for the total PTGI-X is 0 to 105, and higher scores indicate greater growth. Means (ranges from 0 to 5) can be reported for each domain since each domain has a different number of items. The Cronbach’s alpha reliability coefficient for the PTGI-X total score was .94. Coefficients for the five domains were as follows: (a) .88 for Relating to Others; (b) .78 for New Possibilities; (c) .76 for Personal Strength; (d) .86 for Spiritual-Existential Change; and (e) .64 Appreciation of Life.

Only the loss group (n = 128) took the PTGI-X. The total score was utilized in this study. The total scores ranged from 0 to 125 with a mean of 67.84 (SD = 27.54); higher scores represent higher levels of PTG and lower scores represent lower levels of PTG. The distribution was negatively skewed with a skewness value of -.18 and standard error of skewness of .21. Additionally, the distribution was platykurtic with a kurtosis value of -.47 and standard error of kurtosis of .43. Neither the skewness nor kurtosis was significant, indicating a normal distribution the total score of the PTGI-X.
Statistical Analyses of Research Questions

The research questions investigated in this current study were:

1. What is the long-term psychosocial developmental impact of parental death during adolescence in young adults?

2. How do demographic variables (e.g., gender, SES, ethnicity, age), type of parental death, gender of deceased parent, age when death occurred, and level of closeness to the deceased impact the psychosocial development of young adults who experienced a parental death during adolescence?

3. What is the relationship between psychosocial development, social support, religiosity/spirituality, grief levels, and PTG in young adults who experienced a parental death during adolescence?

4. Does psychosocial development, social support, religiosity/spirituality, and grief levels predict PTG in young adults who experienced a parental death during adolescence?

The researcher posited the following hypotheses: (a) when compared to non-bereaved peers, young adults who experienced a parental death during adolescence will have lower psychosocial developmental strength (Research Question 1); (b) young adults of a lower socioeconomic status, young adults who experienced a parental death at a younger age during adolescence, young adults who were closer to the deceased parent, and younger aged young adults will have lower levels of psychosocial developmental strength (Research Question 2); (c) psychosocial development will be positively correlated with social support and religiosity/spirituality, and negatively correlated with
grief levels (Research Question 3); and (d) psychosocial development, social support, religiosity/spirituality, and grief levels will be predictive of PTG (Research Question 4).

**Research Question 1**

To examine the psychosocial development attributes/strength (dependent variable measured by the global scale of the MEPSI) between young adults who experienced the death of a parent during adolescence (loss group) and their non-bereaved peers (non-loss group), a one-tailed two-sample *t*-test was conducted to determine statistically significant differences; the independent variable was the death of a parent during adolescence. As stated previously, analysis was conducted at the one-tailed level with the alpha level set at .05. None of the statistical assumptions (as described in Chapter 3) were violated.

The researcher hypothesized that, when compared to their non-bereaved peers, young adults who experienced a parental death during adolescence would have lower psychosocial developmental strength. Findings affirmed the hypothesis: the non-loss group mean (3.54) was significantly higher than the loss group mean (3.24), *t*(254) = 3.97, *p* < .001, with a medium effect size (Cohen’s *d* = 0.50; Cohen, 1988) and Levene’s test indicating equal variance (*F* = .20, *p* = .66). Thus, the psychosocial developmental strength of the non-loss was significantly higher than the psychosocial developmental strength of the loss group. Table 11 illustrates the two-sample *t*-test conducted.
*Table 11*

**Two-sample t-test Between Non-loss Group MEPSI Global Scale and Loss Group MEPSI Global Scale**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>M(SD)</th>
<th>t</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEPSI Global Scale</td>
<td>3.53(.61)</td>
<td>3.24(.61)</td>
<td>3.97</td>
<td>254</td>
</tr>
<tr>
<td></td>
<td>3.97</td>
<td></td>
<td></td>
<td>.000*</td>
</tr>
</tbody>
</table>

*Note.* Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, \( M \) = Mean, \( SD \) = Standard Deviation, \( t \) = t-value, \( df \) = degrees of freedom, \( p \) = p-value, \( *p < .05, Cohen's d = 0.50 \)

**Research Question 2**

Among the loss group, two-sample \( t \)-tests and one-way ANOVAs with Tukey’s post hoc analyses were utilized to examine whether statistically significant differences in psychosocial developmental attributes/strength (dependent variable measured by the MEPSI global scale) existed among sub-groups. Analyses were organized according to the independent variables, which included the following: (a) demographic variables (e.g., gender, SES, ethnicity, age); (b) cause of parental death; (d) gender of deceased parent; (e) age when death occurred; (f) and level of closeness to the deceased. Utilizing a Bonferroni per comparison \( \alpha (.05/8 = .006) \), analysis was conducted at the one-tailed level with alpha levels set at .006. Due to each variable being independent theoretically, variables were not grouped. None of the statistical assumptions (as described in Chapter 3) for the data analyses utilized for this research question were violated.

**Gender.** The mean score of the MEPSI global scale for males (3.50) was non-significantly higher than the mean score for females (3.20), \( t(122) = 2.36, p = .02 \), and Levene’s test indicating equal variance \( (F = 1.27, p = .26) \). Thus, the mean scores of the MEPSI global scale for males and females were non-significantly different from each other. Table 12 illustrates the two-sample \( t \)-test conducted.
Table 12

Two-sample t-test Between MEPSI Global Scale for Males and Females

<table>
<thead>
<tr>
<th>Instrument</th>
<th>M(SD)</th>
<th>t</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEPSI Global Scale</td>
<td>3.50(.52)</td>
<td>3.20(.60)</td>
<td>2.36</td>
<td>122</td>
</tr>
</tbody>
</table>

*Note.* Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, M = Mean, SD = Standard Deviation, t = t-value, df = degrees of freedom, p = p-value, Cohen's d = 0.54

Race/Ethnicity. There was not a statistically significant difference between race/ethnicity groups as determined by one-way ANOVA, F(2, 111) = .11, p = .899, and Levene’s test indicating equal variance, F(2, 111) = 2.41, p = .095. Thus, the mean scores of the MEPSI global scale between White, Hispanic/Latino/Spanish, and Black/African American participants were non-significantly different from each other. Table 13 illustrates the one-way ANOVA test conducted.

Table 13

One-way ANOVA Test for MEPSI Global Scale Between Race/Ethnicity Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>M(SD)</th>
<th>F</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>3.23(.69)</td>
<td>3.30(.42)</td>
<td>3.28(.49)</td>
<td>.11</td>
</tr>
</tbody>
</table>

*Note.* Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, M = Mean, SD = Standard Deviation, F = F-ratio, df = degrees of freedom, p = p-value, Eta-squared = .00

SES. The researcher hypothesized that young adults of a lower SES would have lower levels of psychosocial developmental strength. Although mean scores of the MEPSI global scale for participants of a lower SES—participants who indicated that they do not meet basic expenses (2.97) or just meet basic expenses (3.16)—were lower than participants of a higher SES—participants who indicated that they meet needs with a little left (3.42) or live comfortably (3.41)—there was not a statistically significant
difference between these SES groups as determined by one-way ANOVA, $F(3, 124) = 3.67, p = .01$, and Levene’s test indicating equal variance, $F(3, 124) = .84, p = .473$. Thus, the mean scores of the MEPSI global scale between SES groups were non-significantly different from each other. Table 14 illustrates the one-way ANOVA test conducted.

Table 14

<table>
<thead>
<tr>
<th>Variable</th>
<th>SES1</th>
<th>SES2</th>
<th>SES3</th>
<th>SES4</th>
<th>$F$</th>
<th>$df$</th>
<th>$p$ (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES</td>
<td>2.97(0.66)</td>
<td>3.16(0.61)</td>
<td>3.42(0.49)</td>
<td>3.41(0.62)</td>
<td>3.67</td>
<td>3</td>
<td>.014</td>
</tr>
</tbody>
</table>

*Note.* Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, SES1 = Don’t meet basic expenses, SES2 = Just meet basic expenses, SES3 = Meet needs with a little left, SES4 = Live comfortably, $M =$ Mean, $SD =$ Standard Deviation, $F =$ F-ratio, $df =$ degrees of freedom, $p =$ p-value, Eta-squared = .08

**Age.** The researcher hypothesized that younger aged young adults would have lower levels of psychosocial developmental strength. Although the 28 and 29 years old age group had the highest mean scores of the MEPSI global scale (3.43) compared to the other age groups, there was not a statistically significant difference between the age groups as determined by one-way ANOVA, $F(4, 123) = .93, p = .45$, and Levene’s test indicating equal variance $F(4,123) = 1.06, p = .38$. Due to one age group (22 years old) having fewer than 10 participants, age groups were created as follows: (a) 20 and 21 years old; (b) 22 and 23 years old; (c) 24 and 25 years old; (d) 26 and 27 years old; and (e) 28 and 29 years old. Thus, mean scores of the MEPSI global scale between these age groups were non-significantly different from each other. Table 15 illustrates the one-way ANOVA test conducted.
Table 15

*One-way ANOVA Test for MEPSI Global Scale Between Age Groups*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M(SD)</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>20/21</td>
<td>3.25(.51)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22/23</td>
<td>3.22(.53)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/25</td>
<td>3.18(.55)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/27</td>
<td>3.13(.69)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28/29</td>
<td>3.43(.71)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, 20/21 = Age group 1 (20 and 21 years old), 22/23 = Age group 2 (22 and 23 years old), 24/25 = Age group 3 (24 and 25 years old), 26/27 = Age group 4 (26 and 27 years old), 28/29 = Age group 5 (28 and 29 years old), M = Mean, SD = Standard Deviation, F = F-ratio, df = degrees of freedom, p = p-value (one-tailed), Eta-squared = .03

**Cause of parental death.** There was not a statistically significant difference between groups that reported different causes of parental death as determined by one-way ANOVA, $F(4, 114) = 1.59$, $p = .18$, and Levene’s test indicating equal variance $F(4,114), p = .18$. Thus, the mean scores of the MEPSI global scale for the different causes of parental death were non-significantly different from each other. Table 16 illustrates the one-way ANOVA test conducted.

Table 16

*One-way ANOVA Test for MEPSI Global Scale Between Causes of Parental Death*

<table>
<thead>
<tr>
<th>Variable</th>
<th>ENC</th>
<th>UNC</th>
<th>A</th>
<th>H</th>
<th>S</th>
<th>F</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causes of parental death</td>
<td>3.33(.55)</td>
<td>3.32(.65)</td>
<td>3.27(.56)</td>
<td>2.83(.62)</td>
<td>3.13(.66)</td>
<td>1.59</td>
<td>4</td>
<td>.181</td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, ENC = expected natural cause (cancer, old age, etc.), UNC = unexpected natural cause (sudden cardiac arrest, disease, etc.), A = accident (car accident, drug overdose, etc.), H = homicide (e.g., murder, manslaughter), S = suicide, M = Mean, SD = Standard Deviation, F = F-ratio, df = degrees of freedom, p = p-value, Eta-squared = .05

**Gender of deceased parent.** The mean score of the MEPSI global scale for those who lost a biological father (3.21) was non-significantly lower than the mean score
for those who lost a biological mother (3.30), $t(126) = -0.78, p = .44$, and Levene’s test indicating equal variance ($F = 1.18, p = .23$). Thus, the mean scores of the MEPSI global scale for the gender of the deceased parent were non-significantly different from each other. Table 17 illustrates the two-sample $t$-test conducted.

Table 17

<table>
<thead>
<tr>
<th>Variable</th>
<th>Biological father M(SD)</th>
<th>Biological mother M(SD)</th>
<th>$t$</th>
<th>$df$</th>
<th>$p$ (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender of deceased parent</td>
<td>3.21 (.59)</td>
<td>3.30 (.68)</td>
<td>-0.78</td>
<td>126</td>
<td>.436</td>
</tr>
</tbody>
</table>

*Note.* Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, $M = $ Mean, $SD = $ Standard Deviation, $t = t$-value, $df = $ degrees of freedom, $p = p$-value, Cohen’s $d = 0.15$

**Age when parental death occurred.** The researcher hypothesized that young adults who experienced a parental death at a younger age during adolescence would have lower levels of psychosocial developmental strength. Although the 13 years old group (3.16) and the 14-15 years old group (3.12) had lower mean scores of the MEPSI global scale than the 16-17 years old group (3.40) and the 18-19 years old group (3.36), there was not a statistically significant difference between the age groups as determined by one-way ANOVA, $F(3, 124) = 1.81, p = .15$, and Levene’s test indicating equal variance, $F(3, 124) = 1.43, p = .24$. Due to one age group (17 years old) having fewer than 10 participants, age groups were created as the following: (a) 13 years old; (b) 14-15 years old; (c) 16-17 years old; and (d) 18-19 years old. Additionally, the 13 years old age group represents pre-high school age and the 18-19 years old age group represents age of legal majority and post-high school age. Thus, mean scores of the MEPSI global scale between these age groups were non-significantly different from each other. Table 18 illustrates the one-way ANOVA test conducted.
Table 18

One-way ANOVA Test for MEPSI Global Scale Between Age Groups of When Parental Death Occurred

<table>
<thead>
<tr>
<th>Variable</th>
<th>M(SD)</th>
<th>F</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age when parental death occurred</td>
<td>3.16(.53)</td>
<td>3.12(.60)</td>
<td>3.40(.52)</td>
<td>3.36(.70)</td>
</tr>
<tr>
<td></td>
<td>3.16</td>
<td>3.12</td>
<td>3.40</td>
<td>3.36</td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, 13 = Age group 1 (13 years old), 14/15 = Age group 2 (14 and 15 years old), 16/17 = Age group 3 (16 and 17 years old), 18/19 = Age group 4 (18 and 19 years old), M = Mean, SD = Standard Deviation, F = F-ratio, df = degrees of freedom, p = p-value, Eta-squared = .04

**Level of closeness to the deceased parent.** The researcher hypothesized that young adults who were closer to the deceased parent would have lower levels of psychosocial developmental strength. Contrary to the hypothesis, participants who were closer to the deceased parent had higher levels of psychosocial developmental strength; however, the difference was not statistically significant as determined by one-way ANOVA, \( F(3,116) = 2.02, p = .12, \) and Levene’s test indicating equal variance, \( F(3,116) = 1.88, p = .14. \) Thus, mean scores of the MEPSI global score between the levels of closeness to the deceased parent were non-significantly different from each other. Table 19 illustrates the one-way ANOVA test conducted.
Table 19

One-way ANOVA Test for MEPSI Global Scale Between Levels of Closeness to the Deceased Parent

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M(SD)$</th>
<th>$F$</th>
<th>$df$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of closeness to the deceased parent</td>
<td>C1</td>
<td>C2</td>
<td>C3</td>
<td>C4</td>
</tr>
<tr>
<td>3.36(.57)</td>
<td>3.25(.68)</td>
<td>3.14(.40)</td>
<td>2.88(.65)</td>
<td>2.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed, MEPSI = Modified Erikson Psychosocial Stage Inventory, C1 = Closer than any relationship I’ve ever had before or since, C2 = Closer than most relationships I’ve had with other people, C3 = About as close as most of my relationships with others, C4 = Not very close at all, $M$ = Mean, $SD$ = Standard Deviation, $F$ = $F$-ratio, $df$ = degrees of freedom, $p$ = $p$-value (one-tailed), Eta-squared = .05

Research Question 3

Analyses of correlations were conducted to determine the relationships between the constructs measured (e.g., psychosocial development, social support, religiosity/spirituality, grief, PTG). Pearson’s product-moment coefficients were computed to determine whether statistically significant relationships existed between these constructs. Psychosocial development was measured by the MEPSI. Social support was measured by the MSPSS. Religiosity/spirituality was measured by the Religious Involvement (RI) subscale and the Total Score of the Spiritual Transcendence (ST) component of the ASPIRES. Grief was measured by the Present Emotion and the Past Life Disruption subscales of the TRIG. PTG was measured by the PTGI-X. Utilizing a Bonferroni per comparison $\alpha$ (.05/21= .002), analysis was conducted at the one-tailed level alpha level set at .002. None of the statistical assumptions (as described in Chapter 3) for the data analysis were violated.

The researcher hypothesized that psychosocial development would be positively correlated with social support and religiosity/spirituality, and negatively correlated with grief levels; findings affirmed that psychosocial development as measured by the MEPSI
(global scale) was positively correlated with social support as measured by the MSPSS (total score; $r = .442, p < .001$), religiosity as measured by the ASPIRES (RI subscale; $r = .317, p < .001$), and spirituality as measured by the ASPIRES (Total Score of ST; $r = .398, p < .001$). Although psychosocial development as measured by the MEPSI (global scale) was negatively correlated with grief levels as measured by the TRIG (Past Disruption scale; $r = -.262, p = .003$) and the TRIG (Present Emotions; $r = -.023, p = .798$), higher scores on the TRIG indicate lower levels of grief; thus, higher levels of psychosocial developmental strength were related to higher levels of grief. All of these correlations were statistically significant ($p < .002$) except for the TRIG scales. Table 20 illustrates Pearson-product moment coefficients that were obtained.
Table 20

Pearson’s Product-moment Correlations for MEPSI, MSPSS, ASPIRES, TRIG, and PTGI-X

<table>
<thead>
<tr>
<th></th>
<th>MEPSI (global scale)</th>
<th>MSPSS (total score)</th>
<th>ASPIRES – RI</th>
<th>ASPIRES – ST</th>
<th>TRIG – PD</th>
<th>TRIG – PE</th>
<th>PTGI-X (total score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEPSI (global scale)</td>
<td>1</td>
<td>.442*</td>
<td>.317*</td>
<td>.398*</td>
<td>-.262</td>
<td>-.023</td>
<td>.532*</td>
</tr>
<tr>
<td>MSPSS (total score)</td>
<td>.442*</td>
<td>1</td>
<td>.360*</td>
<td>.440*</td>
<td>.008</td>
<td>.117</td>
<td>.489*</td>
</tr>
<tr>
<td>ASPIRES – RI</td>
<td>.317*</td>
<td>.360*</td>
<td>1</td>
<td>.716*</td>
<td>.102</td>
<td>.138</td>
<td>.479*</td>
</tr>
<tr>
<td>ASPIRES – ST</td>
<td>.398*</td>
<td>.440*</td>
<td>.716*</td>
<td>1</td>
<td>.108</td>
<td>.199</td>
<td>.555*</td>
</tr>
<tr>
<td>TRIG – PD</td>
<td>-.262</td>
<td>.008</td>
<td>.102</td>
<td>.108</td>
<td>1</td>
<td>.464*</td>
<td>.128</td>
</tr>
<tr>
<td>TRIG – PE</td>
<td>-.023</td>
<td>.117</td>
<td>.138</td>
<td>.199</td>
<td>.464*</td>
<td>1</td>
<td>.209</td>
</tr>
<tr>
<td>PTGI-X</td>
<td>.532*</td>
<td>.489*</td>
<td>.479*</td>
<td>.555*</td>
<td>.128</td>
<td>.209</td>
<td>1</td>
</tr>
</tbody>
</table>


* *p < .002

**MEPSI.** A Pearson product-moment correlation was calculated to determine the relationship between the MEPSI and the other constructs measured. There was a positive correlation between the MEPSI (global scale) and the MSPSS (total score), which was statistically significant ($r = .442, p < .001$) with a medium-large effect size. There was a positive correlation between the MEPSI (global scale) and the ASPIRES (RI subscale),
which was statistically significant ($r = .317, p < .001$) with a medium effect size. There was a positive correlation between the MEPSI (global scale) and the ASPIRES (Total Score of ST), which was statistically significant ($r = .398, p = .003$) with a medium-large effect size. There was a negative correlation between the MEPSI (global scale) and the TRIG (Past Disruption scale), which was not statistically significant ($r = -.262, p = .003$).

There was a negative correlation between the MEPSI (global scale) and the TRIG (Present Emotion scale), which was not statistically significant ($r = -.023, p = .798$).

There was a positive correlation between the MEPSI (global scale) and the PTGI-X (total score), which was statistically significant ($r = .532, p < .001$) with a large effect size.

**MSPSS.** A Pearson product-moment correlation was calculated to determine the relationship between the MSPSS and the other constructs measured. There was a positive correlation between the MSPSS (total score) and the MEPSI (global scale), which was statistically significant ($r = .442, p < .001$) with a medium-large effect size. There was a positive correlation between the MSPSS (total score) and the ASPIRES (Religious Involvement subscale), which was statistically significant ($r = .360, p < .001$) with a medium effect size. There was a positive correlation between the MSPSS (total score) and the ASPIRES (Total Score of ST), which was statistically significant ($r = .440, p < .001$) with a medium-large effect size. There was a positive correlation between the MSPSS (total score) and the TRIG (Past Disruption scale), which was not statistically significant ($r = .008, p = .929$). There was a positive correlation between the MSPSS (total score) and the TRIG (Present Emotion scale), which was not statistically significant ($r = .117, p = .188$). There was a positive correlation between the MSPSS (total score)
and the PTGI-X (total score), which was statistically significant \(r = .489, p < .001\) with a large effect size.

**ASPIRES – Religious Involvement.** A Pearson product-moment correlation was calculated to determine the relationship between the ASPIRES (RI subscale) and the other constructs measured. There was a positive correlation between the ASPIRES (RI subscale) and the MEPSI (global scale), which was statistically significant \(r = .317, p < .001\) with a medium effect size. There was a positive correlation between the ASPIRES (RI subscale) and the MSPSS (total score), which was statistically significant \(r = .360, p < .001\) with a medium effect size. There was a positive correlation between the ASPIRES (RI subscale) and the ASPIRES (Total Score of ST), which was statistically significant \(r = .716, p < .001\) with a large effect size. There was a positive correlation between the ASPIRES (RI subscale) and the TRIG (Past Disruption scale), which was not statistically significant \(r = .102, p = .251\). There was a positive correlation between the ASPIRES (RI subscale) and the TRIG (Present Emotion scale), which was not statistically significant \(r = .138, p = .120\). There was a positive correlation between the ASPIRES (RI subscale) and the PTGI-X (total score), which was statistically significant \(r = .479, p < .001\) and with a large effect size.

**ASPIRES – Spiritual Transcendence.** A Pearson product-moment correlation was calculated to determine the relationship between the ASPIRES (Total Score of ST) and the other constructs measured. There was a positive correlation between the ASPIRES (Total Score of ST) and the MEPSI (global scale), which was statistically significant \(r = .398, p < .001\) with a medium-large effect size. There was a positive correlation between the ASPIRES (Total Score of ST) and the MSPSS (total score),
which was statistically significant ($r = .440, p < .001$) with a medium-large effect size.

There was a positive correlation between the ASPIRES (Total Score of ST) and the ASPIRES (RI subscale), which was statistically significant ($r = .716, p < .001$) with a large effect size. There was a positive correlation between the ASPIRES (Total Score of ST) and the TRIG (Past Disruption scale), which was not statistically significant ($r = .108, p = .224$). There was a positive correlation between the ASPIRES (Total Score of ST) and the TRIG (Present Emotion scale), which was not statistically significant ($r = .199, p = .024$). There was a positive correlation between the ASPIRES (Total Score of ST) and the PTGI-X (total score), which was statistically significant ($r = .555, p < .001$) with a large effect size.

**TRIG – Past Disruption.** A Pearson product-moment correlation was calculated to determine the relationship between the TRIG (Past Disruption scale) and the other constructs measured. There was a negative correlation between the TRIG (Past Disruption scale) and the MEPSI (global scale), which was not statistically significant ($r = -.262, p = .003$). There was a positive correlation between the TRIG (Past Disruption scale) and the MSPSS (total score), which was not statistically significant ($r = .008, p = .929$). There was a positive correlation between the TRIG (Past Disruption scale) and the ASPIRES (RI subscale), which was not statistically significant ($r = .102, p = .251$). There was a positive correlation between the TRIG (Past Disruption scale) and the ASPIRES (Total Score of ST), which was not statistically significant ($r = .108, p = .224$). There was a positive correlation between the TRIG (Past Disruption scale) and the TRIG (Present Emotion scale), which was statistically significant ($r = .464, p < .001$).
was a positive correlation between the TRIG (Past Disruption scale) and the PTGI-X (total score), which was not statistically significant ($r = .128, p = .151$).

**TRIG – Present Emotion.** A Pearson product-moment correlation was calculated to determine the relationship between the TRIG (Present Emotion scale) and the other constructs measured. There was a negative correlation between the TRIG (Present Emotion scale) and the MEPSI (global scale), which was not statistically significant ($r = -.023, p = .798$). There was a positive correlation between the TRIG (Present Emotion scale) and the MSPSS (total score), which was not statistically significant ($r = .117, p = .118$). There was a positive correlation between the TRIG (Present Emotion scale) and the ASPIRES (RI subscale), which was not statistically significant ($r = .138, p = .120$). There was a positive correlation between the TRIG (Present Emotion scale) and the ASPIRES (Total Score of ST), which was not statistically significant ($r = .199, p = .024$). There was a positive correlation between the TRIG (Present Emotion scale) and the TRIG (Past Disruption scale), which was statistically significant ($r = .464, p < .001$). There was a positive correlation between the TRIG (Present Emotion scale) and the PTGI-X (total score), which was not statistically significant ($r = .209, p = .018$).

**PTGI-X.** A Pearson product-moment correlation was run to determine the relationship between the PTGI-X (total score) and the other constructs measured. There was a positive correlation between the PTGI-X (total score) and the MEPSI (global scale), which was statistically significant ($r = .532, p < .001$) with a large effect size. There was a positive correlation between the PTGI-X (total score) and the MSPSS (total score), which was statistically significant ($r = .489, p < .001$) with a large effect size.
There was a positive correlation between the PTGI-X (total score) and the ASPIRES (RI subscale), which was statistically significant ($r = .479, p < .001$) with a large effect size.

There was a positive correlation between the PTGI-X (total score) and the ASPIRES (Total Score of ST), which was statistically significant ($r = .555, p < .001$) with a large effect size. There was a positive correlation between the PTGI-X (total score) and the TRIG (Past Disruption scale), which was not statistically significant ($r = .128, p = .151$).

There was a positive correlation between the PTGI-X (total score) and the TRIG (Present Emotion scale), which was not statistically significant ($r = .209, p = .018$).

**Research Question 4**

Sequential multiple regression analysis was conducted to develop a predictive model of PTG (target variable) using the five predictor variables (e.g., psychosocial development, social support, religiosity, spirituality, current grief levels) in block two after controlling for six demographic variables (e.g., gender, ethnicity, age), past grief levels (measured by the Past Life Disruption scale of the TRIG), and years since death in block one. Due to gender and ethnicity being nominal data, gender was represented as one dummy variable for male gender, with female gender serving as the reference group; race/ethnicity was represented as two dummy variables, with White race/ethnicity serving as the reference group to Hispanic/Latino/Spanish race/ethnicity and Black/African American race/ethnicity. Thus, the model determined whether psychosocial development, social support, religiosity, spirituality, and current grief levels predict PTG above and beyond the variables in block one. Psychosocial development was measured by the MEPSI global score, social support was measured by the MSPSS total score, religiosity was measured by the RI subscale of the ASPIRES, spirituality was measured
by the Total Score of the ST component of the ASPIRES, and current grief levels were measured by the Present Emotion scale of the TRIG. Variables in block one address pre-existing conditions (i.e., demographics) and variables concerning the death of the parent, while variables in block two address current states of mind. Analysis was conducted at the one-tailed level alpha level set at .05. None of the statistical assumptions (as described in Chapter 3) for the data analysis were violated.

A sequential regression was calculated to predict PTG from psychosocial development, social support, religiosity, spirituality, and current grief levels. For the first model, the predictor variables of gender (e.g., male, female), ethnicity (e.g., White; Hispanic, Latino, or Spanish; Black or African American), age, past grief levels, and years since death significantly predicted PTG, $F(6, 104) = 3.43, p = .004, R^2 = .17$. Male gender ($\beta = .270, p = .006$), with female gender serving as the reference group; Hispanic/Latino/Spanish race/ethnicity ($\beta = .183, p = .049$), with White race/ethnicity serving as the reference group; Black/African American race/ethnicity ($\beta = .227, p = .018$), with White race/ethnicity serving as the reference group, age ($\beta = .297, p = .034$); and years since death ($\beta = -.361, p = .012$) added significantly to the prediction. On the other hand, present grief levels ($\beta = .173, p = .069$) did not significantly add to the prediction. The model accounted for 17% of the variance (small effect size). The standardized coefficients refer to how many standard deviations of the dependent variable (PTG) will change per standard deviation increase of the predictor variable.

For the second model, where the predictors in the first block are controlled for, the predictor variables psychosocial development, social support, religiosity, spirituality, and current grief level significantly predicted PTG, $F(11, 99) = 10.45, p = .00, R^2 = .54$;
there was a .37 $R^2$ change and 15.93 $F$ change, which was significant ($p < .001$).

Psychosocial development ($\beta = .323, p < .001$), social support ($\beta = .180, p = .030$), spirituality ($\beta = .247, p = .027$), past levels of grief ($\beta = .194, p = .023$), and male gender ($\beta = .163, p = .034$), with female gender serving as the reference group, added significantly to the prediction. The Hispanic/Latino/Spanish race/ethnicity ($\beta = .116, p = .111$), with White race/ethnicity serving as the reference group; Black/African American race/ethnicity ($\beta = .112, p = .140$), with White race/ethnicity serving as the reference group; age ($\beta = .171, p = .127$); years since death ($\beta = -.168, p = .134$); current grief levels ($\beta = .026, p = .749$); and religiosity ($\beta = .066, p = .520$) did not significantly add to the model. The model accounted for 54% of the variance (large effect size), a 37% significant change ($p < .001$) from the first model.

The error variable appeared to be normally distributed as evidenced by the histogram of the residuals. The error variance appeared constant as evidenced by plot of residuals versus $\hat{y}$. The Durbin-Watson statistic was obtained (1.88) and indicated that the errors were independent. The Leverage statistic was less than .5, and Cook’s distance was less than 1, indicating that there were no problems with outliers. Collinearity statistics were conducted; tolerance values were not less than .2, and variance inflation factors (VIF) values were not more than 5, indicating no problems with multicollinearity. Table 21 illustrates the sequential regression analysis conducted and Table 22 illustrates the coefficients of the predictor variables of this sequential regression analysis.
Table 21

Summary of Sequential Regression Analysis for Posttraumatic Growth

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>R² Change</th>
<th>F Change</th>
<th>df</th>
<th>p for F Change</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>.406</td>
<td>.165</td>
<td>3.427</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>.004*</td>
</tr>
<tr>
<td>2b</td>
<td>.733</td>
<td>.537</td>
<td>10.450</td>
<td>.372</td>
<td>15.927</td>
<td>11</td>
<td>.000*</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Note. R = multiple correlation coefficient, R² = coefficient of determination, F = F-ratio, df = degrees of freedom, p = p-value

aPredictors: male gender, Hispanic/Latino/Spanish race/ethnicity, Black/African-American race/ethnicity, age, years since death, present grief levels
bPredictors: current grief levels, religiosity, spirituality, social support, psychosocial development

*p < .05 (one-tailed)

Table 22

Predictor Variables of the Sequential Regression Analyses for Posttraumatic Growth

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1a</th>
<th></th>
<th></th>
<th>Model 2b</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>B</td>
<td>SE B</td>
<td>β</td>
<td>t</td>
<td>p</td>
<td>B</td>
<td>SE B</td>
<td>β</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>Male</td>
<td>18.183</td>
<td>6.511</td>
<td>.270</td>
<td>2.793</td>
<td>.006*</td>
<td>10.962</td>
<td>5.094</td>
<td>.163</td>
<td>2.152</td>
<td>.034*</td>
</tr>
<tr>
<td>R/E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B/AA</td>
<td>16.060</td>
<td>6.700</td>
<td>.227</td>
<td>2.397</td>
<td>.018*</td>
<td>7.944</td>
<td>5.345</td>
<td>.112</td>
<td>1.486</td>
<td>.140</td>
</tr>
<tr>
<td>Age</td>
<td>2.929</td>
<td>1.366</td>
<td>.227</td>
<td>2.145</td>
<td>.034*</td>
<td>1.690</td>
<td>1.097</td>
<td>.171</td>
<td>1.540</td>
<td>.127</td>
</tr>
<tr>
<td>YSD</td>
<td>-3.165</td>
<td>1.232</td>
<td>-.361</td>
<td>-2.569</td>
<td>.012*</td>
<td>-1.478</td>
<td>.978</td>
<td>-.168</td>
<td>-1.511</td>
<td>.134</td>
</tr>
<tr>
<td>PGL</td>
<td>.687</td>
<td>.375</td>
<td>.173</td>
<td>1.835</td>
<td>.069</td>
<td>.768</td>
<td>.332</td>
<td>.194</td>
<td>2.315</td>
<td>.023*</td>
</tr>
<tr>
<td>CGL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>.150</td>
<td>.232</td>
<td>.066</td>
<td>.645</td>
<td>.520</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spirituality</td>
<td>.386</td>
<td>.172</td>
<td>.247</td>
<td>2.250</td>
<td>.027*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>3.962</td>
<td>1.795</td>
<td>.180</td>
<td>2.207</td>
<td>.030*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PD</td>
<td>14.599</td>
<td>3.957</td>
<td>.323</td>
<td>3.690</td>
<td>.000*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. R/E = race/ethnicity, race/ethnicity was represented as three dummy variables with White race/ethnicity serving as the reference group, H/L/S = Hispanic/Latino/Spanish race/ethnicity, B/AA = Black/African-American race/ethnicity, YSD = years since death, PGL = present grief levels; CGL = current grief levels, SS = social support, PD = psychosocial development, B = unstandardized coefficient, SE B = coefficient standard error, β = standardized coefficient beta, t = t-value, p = p-value

aPredictors: male gender, Hispanic/Latino/Spanish race/ethnicity, Black/African-American race/ethnicity, age, years since death, present grief levels
bPredictors: current grief levels, religiosity, spirituality, social support, psychosocial development; gender was represented as two dummy variables with female serving as the reference group

*p < .05 (one-tailed)
Exploratory Data Analysis

This section includes the results of pertinent exploratory data analysis that will be utilized in the next chapter (discussion of the results). Regarding the MSPSS, the non-loss group mean for the family subscale (5.29) was significantly higher than the loss group mean (4.63) at the .01 alpha level, \(t(254) = 3.22, p = .001\), with a small-medium effect size (Cohen’s \(d = 0.40\); Cohen, 1988) and Levene’s test indicating equal variance (\(F = .20, p = .66\)). Thus, individuals in the loss group had significantly less family support than the non-loss group. Table 23 illustrates the two-sample t-test conducted during exploratory data analysis for the MSPSS family subscale between the non-loss and loss groups.

Table 23

<table>
<thead>
<tr>
<th>Instrument</th>
<th>M(SD) Non-loss group</th>
<th>M(SD) Loss group</th>
<th>t</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSPSS family subscale</td>
<td>5.29(1.62)</td>
<td>4.63(1.66)</td>
<td>3.22</td>
<td>254</td>
<td>.001*</td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed, MSPSS = Multidimensional Scale of Perceived Social Support, \(M =\) Mean, \(SD = \) Standard Deviation, \(t = \) t-value, \(df = \) degrees of freedom, \(p = p\)-value

*\(p < .01\), Cohen's \(d = 0.40\)

The non-loss group mean for the total score of the MSPSS total (5.31) was higher than the loss group mean (4.98); this was a significant difference at a .05 alpha level, \(t(254) = 2.06, p = .04\), with a small effect size (Cohen's \(d = 0.26\); Cohen, 1988) and Levene’s test indicating equal variance (\(F = .68, p = .41\)). Thus, individuals in the loss group had less social support when compared to the non-loss group. Table 24 summarizes the two-sample t-test conducted during exploratory analysis for the MSPSS total score between the non-loss and loss groups.
Table 24

Two-sample t-test Between Non-loss Group MSPSS Total Score Total and Loss Group MSPSS Total Score

<table>
<thead>
<tr>
<th>Instrument</th>
<th>M(SD)</th>
<th>t</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-loss group</td>
<td>Loss group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSPSS</td>
<td>5.29(1.62)</td>
<td>4.63(1.66)</td>
<td>3.22</td>
<td>254</td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed, MSPSS = Multidimensional Scale of Perceived Social Support, M = Mean, SD = Standard Deviation, t = t-value, df = degrees of freedom, p = p-value
*p < .01, Cohen's d = 0.26

Regarding the ASPIRES scale, the non-loss group mean for the Total Score of ST component (78.30) was significantly higher than the loss group mean (73.38) at the .05 alpha level, t(254) = 2.70, p = .021, with a small effect size (Cohen's d = 0.29; Cohen, 1988) and Levene’s test indicating equal variance (F = .67, p = .414). Thus, the loss group had lower levels of spirituality when compared to the non-loss group. Table 25 illustrates the two-sample t-test conducted during exploratory data analysis for the ASPIRES (Total Score of ST) between the non-loss and loss groups.

Table 25

Two-sample t-tests Between Non-loss Group ASPIRES – ST and Loss Group ASPIRES – ST

<table>
<thead>
<tr>
<th>Instrument</th>
<th>M(SD)</th>
<th>t</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-loss group</td>
<td>Loss group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASPIRES – ST</td>
<td>78.30(16.37)</td>
<td>73.38(17.58)</td>
<td>2.31</td>
<td>254</td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed for all subscales, ASPIRES – ST = Assessment of Spirituality and Religious Sentiments – Spiritual Transcendence, M = Mean, SD = Standard Deviation, t = t-value, df = degrees of freedom, p = p-value
*p < .01, Cohen’s d = .29

Exploratory data analysis also found that the non-loss group mean score for the prayer fulfillment subscale of the ST component (34.44) was significantly higher than the loss group mean (30.60) at the .01 level, t(254) = 2.70, p = .007, with a small-medium effect size (Cohen's d = 0.34; Cohen, 1988) and Levene’s test indicating equal variance.
(F = .85, p = .36). Similarly, exploratory data analysis found that the non-loss mean score for the universality subscale of the ST component (23.59) was significantly higher than the loss group mean (21.73) at the .01 level, t(254) = 2.73, p = .007, with a small-medium effect size (Cohen's d = 0.34; Cohen, 1988) and Levene’s test indicating equal variance (F = .04, p = .85). Thus, the loss group had lower levels of spirituality related to prayer fulfillment and universality when compared to the non-loss group. Table 26 summarizes the two-sample t-tests conducted during exploratory analysis for the ASPIRES – ST subscales between the non-loss and loss groups.

Table 26

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M(SD)</th>
<th>t</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prayer fulfillment</td>
<td>34.44(10.97)</td>
<td>30.60(11.72)</td>
<td>2.70</td>
<td>254</td>
</tr>
<tr>
<td>Universality</td>
<td>23.59(5.21)</td>
<td>21.73(5.67)</td>
<td>2.73</td>
<td>254</td>
</tr>
<tr>
<td>Connectedness</td>
<td>20.27(3.22)</td>
<td>21.05(3.38)</td>
<td>-1.89</td>
<td>254</td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed for all subscales, ASPIRES – ST = Assessment of Spirituality and Religious Sentiments – Spiritual Transcendence, M = Mean, SD = Standard Deviation, t = t-value, df = degrees of freedom, p = p-value
*p < .01

The non-loss mean score for the Religious Crisis subscale (8.13) was significantly lower than the loss group mean (9.41) at the .01 level, t(254.16) = -2.59, p = .010, with a small-medium effect size (Cohen's d = 0.32; Cohen, 1988) and Levene’s test indicating that equal variance was not assumed (F = 4.43, p = .036). Thus, individuals in the loss group had higher levels of religious crisis when compared to the non-loss group. Table 27 summarizes in exploratory analysis the two-sample t-test conducted for the MSPSS total score between the non-loss and loss groups.
Table 27

Two-sample t-test Between Non-loss Group ASPIRES – RC Subscale and Loss Group ASPIRES – RC Subscale

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M(SD) Non-loss group</th>
<th>M(SD) Loss group</th>
<th>t</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious Crisis subscale</td>
<td>8.13(3.61)</td>
<td>9.41(4.27)</td>
<td>-2.59</td>
<td>254</td>
<td>.010*</td>
</tr>
</tbody>
</table>

*Note. Equal Variance was assumed, ASPIRES – RC = Assessment of Spirituality and Religious Sentiments – Religious Crisis, M = Mean, SD = Standard Deviation, t = t-value, df = degrees of freedom, p = p-value
*p < .01, Cohen's d = 0.32

The means of the subscales of the MEPSI for the loss group were significantly lower than the means of the non-loss group at the .05 alpha level, with small to medium effect sizes (equal variance assumed for all subscales). For the Trust subscale, the non-loss group mean (3.18) was higher than the loss group (2.75), t(254) = 4.50, p < .001, with a medium effect size (Cohen's d = 0.56; Cohen, 1988) and Levene’s test indicating that equal variance was assumed (F = .00, p = .977). For the Autonomy subscale, the non-loss group mean (3.58) was higher than the loss group (3.26), t(254) = 3.52, p = .001, with a small-medium effect size (Cohen's d = 0.44; Cohen, 1988) and Levene’s test indicating that equal variance was assumed (F = .00, p = .971). For the Initiative subscale, the non-loss group mean (3.65) was higher than the loss group (3.44), t(254) = 2.56, p = .011, with a small-medium effect size (Cohen's d = 0.32; Cohen, 1988) and Levene’s test indicating that equal variance was assumed (F = .26, p = .610). For the Industry subscale, the non-loss group mean (3.87) was higher than the loss group (3.68), t(254) = 1.97, p = .050, with a small effect size (Cohen's d = 0.25; Cohen, 1988) and Levene’s test indicating that equal variance was assumed (F = .94, p = .333). For the Identity subscale, the non-loss group mean (3.52) was higher than the loss group (3.20), t(254) = 3.01, p = .003, with a small-medium effect size (Cohen's d = 0.38; Cohen, 1988)
and Levene’s test indicating that equal variance was assumed \( (F = 1.28, p = .260) \). For the Intimacy subscale, the non-loss group mean (3.55) was higher than the loss group (3.23), \( t(254) = 3.96, p < .001 \), with a medium effect size (Cohen's \( d = 0.49 \); Cohen, 1988) and Levene’s test indicating that equal variance was assumed \( (F = .65, p = .421) \). For the Generativity subscale, the non-loss group mean (3.47) was higher than the loss group (3.20), \( t(254) = 3.40, p = .001 \), with a small-medium effect size (Cohen's \( d = 0.42 \); Cohen, 1988) and Levene’s test indicating that equal variance was assumed \( (F = 3.12, p = .079) \). For the Ego Integrity subscale, the non-loss group mean (3.49) was higher than the loss group (3.13), \( t(254) = 4.23, p < .001 \), with a medium effect size (Cohen's \( d = 0.53 \); Cohen, 1988) and Levene’s test indicating that equal variance was assumed \( (F = .53, p = .468) \). Table 28 summarizes the two-sample \( t \)-tests conducted during exploratory analysis for the subscales of the MEPSI between the non-loss and loss groups.

Table 28

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M(SD) Non-loss group</th>
<th>M(SD) Loss group</th>
<th>( t )</th>
<th>df</th>
<th>( p ) (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>3.18(.76)</td>
<td>2.75(.78)</td>
<td>4.50</td>
<td>254</td>
<td>.000**</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.58(.72)</td>
<td>3.26(.69)</td>
<td>3.52</td>
<td>254</td>
<td>.001**</td>
</tr>
<tr>
<td>Initiative</td>
<td>3.65(.69)</td>
<td>3.44(.66)</td>
<td>2.56</td>
<td>254</td>
<td>.011*</td>
</tr>
<tr>
<td>Industry</td>
<td>3.87(.78)</td>
<td>3.68(.80)</td>
<td>1.97</td>
<td>254</td>
<td>.050*</td>
</tr>
<tr>
<td>Identity</td>
<td>3.52(.87)</td>
<td>3.20(.82)</td>
<td>3.01</td>
<td>254</td>
<td>.003**</td>
</tr>
<tr>
<td>Intimacy</td>
<td>3.55(.62)</td>
<td>3.23(.67)</td>
<td>3.96</td>
<td>254</td>
<td>.000**</td>
</tr>
<tr>
<td>Generativity</td>
<td>3.47(.65)</td>
<td>3.20(.61)</td>
<td>3.40</td>
<td>254</td>
<td>.001**</td>
</tr>
<tr>
<td>Ego Integrity</td>
<td>3.49(.69)</td>
<td>3.13(.65)</td>
<td>4.23</td>
<td>254</td>
<td>.000**</td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed for all subscales, MEPSI = Modified Erikson Psychosocial Stage Inventory, \( M = \) Mean, \( SD = \) Standard Deviation, \( t = \) \( t \)-value, \( df = \) degrees of freedom, \( p = \) \( p \)-value

\*\( p < .05 \), **\( p < .01 \) Cohen's \( d = 0.50 \), \( F = \) \( F \)-value for the Levene’s test for equality of variances, small = small effect size, s-m = small to medium effect size, med. = medium effect size
There was a statistically significant difference in posttraumatic growth between levels of closeness at the .01 alpha level as determined by a one-way ANOVA, $F(3, 116) = 5.59, p = .001$, with a small effect size ($\text{Eta-squared} = .13$) and Levene’s test indicating equal variance, $F(3, 116) = 1.69, p = .173$; Tukey’s post hoc test indicated a significant difference ($p = .001$) in means for PTGI-X between participants who selected *Closer than any relationship I’ve ever had before or since* to describe their level of closeness to their deceased parent (77.73) and participants who selected the *Not very close at all* option (42.27), $t(53) = 4.034, p < .001$, with a very large effect size (Cohen’s $d = 1.38$; Sawilowsky, 2009) and Levene’s test indicating that equal variance was assumed ($F = .01, p = .931$). Thus, participants with closer relationships with the deceased parent had higher levels of PTG. Table 29 summarizes the one-way ANOVA conducted during exploratory analysis for PTGI-X between levels of closeness. Table 30 summarizes the two-sample $t$-tests conducted during exploratory analysis for the PTGI-X between participants who selected *Closer than any relationship I’ve ever had before or since* to describe their level of closeness and participants who selected *Not very close at all.*
Table 29

One-way ANOVA Test for PTGI-X Total Score Between Levels of Closeness to the Deceased Parent

<table>
<thead>
<tr>
<th>Variable</th>
<th>M(SD)</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>77.73(26.29)</td>
<td>5.59</td>
<td>3</td>
<td>.001*</td>
</tr>
<tr>
<td>C2</td>
<td>65.26(28.64)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>67.33(20.08)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C4</td>
<td>42.27(25.14)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed, PTGI-X = Posttraumatic Growth Inventory Expanded, C1 = Closer than any relationship I’ve ever had before or since, C2 = Closer than most relationships I’ve had with other people, C3 = About as close as most of my relationships with others, C4 = Not very close at all, M = Mean, SD = Standard Deviation, F = F-ratio, df = degrees of freedom, p = p-value (one-tailed), Eta-squared = .13, p < .01

Table 30

Two-sample t-test Between Participants Who Selected “Closer than any relationship I’ve ever had before or since” and “Not very close at all”

<table>
<thead>
<tr>
<th>Instrument</th>
<th>M(SD)</th>
<th>t</th>
<th>df</th>
<th>p (one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTGI-X</td>
<td>77.73(26.29)</td>
<td>4.034</td>
<td>53</td>
<td>.000*</td>
</tr>
<tr>
<td>C1</td>
<td>42.27(25.14)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Equal Variance was assumed, PTGI-X = Posttraumatic Growth Inventory Expanded, C1 = Closer than any relationship I’ve ever had before or since, C2 = Not very close at all, M = Mean, SD = Standard Deviation, t = t-value, df = degrees of freedom, p = p-value

*p < .01, Cohen's d = 1.38

When exploring the subscales of MSPSS, significant relationships at the .01 alpha level were found with PTGI-X. The family subscale had a positive relationship with PTG ($r = .405, p < .001$; medium-large effect size). The friends subscale also had a positive relationship with PTG ($r = .374, p < .001$; medium effect size). The significant other subscale had a positive relationship with PTG ($r = .305, p < .001$; medium effect size). Table 31 summarizes the correlation coefficients obtained during exploratory analysis for the MSPSS subscales and PTG as measured by the PTGI-X.

169
Summary

Descriptive statistics of the demographic information of the sample and the instruments used were provided. Moreover, correlations among the variables utilized in this study and the statistical analysis of each hypothesis were reported. The purpose of this study was to investigate the long-term psychosocial developmental impact of parental death during adolescence in young adults. The researcher posited that, when compared to non-bereaved peers, young adults who experienced a parental death during adolescence would have lower psychosocial developmental strength; this was affirmed by this research study. Another research question of the study was how demographic variables (e.g., gender, SES, ethnicity, age), type of parental death, gender of deceased parent, age when death occurred, and level of closeness to the deceased impact the psychosocial development of young adults who experienced a parental death during adolescence; none of the analyses to investigate this found statistically significant differences in psychosocial development regarding these variables.
The relationships between psychosocial development, social support, religiosity/spirituality, grief levels, and PTG in young adults who experienced a parental death during adolescence were also investigated. Affirming the researcher’s hypothesis, psychosocial development was positively correlated with social support, and religiosity/spirituality. Contrary to the researcher’s hypothesis, psychosocial development also had a positive relationship with grief levels. The final research question led to an investigation of whether psychosocial development, social support, religiosity/spirituality, and grief levels predicted PTG in young adults who experienced a parental death during adolescence; these predictors were found to be predictive of PTG, with psychosocial development adding significantly to the prediction. Exploratory data analysis was also reported. The next chapter will discuss these results and connect them to the relevant literature.
CHAPTER FIVE: DISCUSSION & CONCLUSION

This chapter presents the results of the research study, connecting the results to relevant literature and noting the contributions to the current body of literature. This chapter discusses the demographics of the sample, the instruments utilized, and the various findings from the statistical analyses of the research questions. Furthermore, limitations are discussed, along with implications for the profession of counseling.

Review of Research Purpose and Questions

Impacting over 2.5 million youth (U.S. Bureau of the Census, 2001), early parental death can be a very stressful and traumatic event (Berg et al., 2016; Berg et al., 2014; Rostila & Saarela, 2011); hence, it is an important, yet complex, topic to investigate. This study addressed the deficits in current approaches to counseling individuals who experienced early parental death and the counselor education and training in grief and loss; deficits include a lack in: (a) a developmental perspective, and (b) an emphasis on promoting the potential of positive outcomes. Thus, the purpose of this study was to examine the psychosocial developmental impact of early parental death during adolescence in young adults, and to develop a predictive model of posttraumatic growth (PTG) using psychosocial development, religiosity/spirituality, social support, and grief for young adults who experienced a parental death during adolescence.

The current study investigated the following research questions: (a) What is the long-term psychosocial developmental impact of parental death during adolescence in
young adults?; (b) How do demographic variables (e.g., gender, socioeconomic status [SES], ethnicity, age), type of parental death, gender of deceased parent, age when death occurred, and level of closeness to the deceased impact the psychosocial development of young adults who experienced a parental death during adolescence?; (c) What is the relationship between psychosocial development, social support, religiosity/spirituality, grief levels, and PTG in young adults who experienced a parental death during adolescence?; and (d) Do psychosocial development, social support, religiosity/spirituality, and grief levels predict PTG in young adults who experienced a parental death during adolescence?

Discussion

Demographics

Although the age and age when parent died variables had significant kurtosis, kurtosis values were less than -1.3; George and Mallery (2010) asserted that values for kurtosis between -2 and 2 are acceptable to demonstrate normal univariate distribution. Additionally, chi-square tests of homogeneity were conducted to determine whether the demographic distributions of the non-loss and loss groups were significantly different; the demographics collected for both the loss and non-loss groups included gender, ethnicity, and SES. None of the demographic distributions between the non-loss and loss groups were significantly different, further validating the use of the non-loss group as a comparison group for this causal comparative study. The gender distribution, ethnic distribution, and other demographic distributions of this study cannot be compared to the population of individuals who have lost a parent during adolescence in the U.S. due to a lack of demographic information for this population. Furthermore, some research
utilizing Qualtrics Panels solicit more females compared to men (e.g., Soucy & Hadjistavropoulos, 2017), which could explain the number of females (n = 205) obtained in the sample for this study compared to males (n = 47). Interpretation of results and generalizability towards males need to be carefully considered due to the underrepresentation of male participants in this study.

A subjective measure was used to examine SES in this study. Although objective information about household income, education level, or occupational status (typical indicators of SES) was not utilized, researchers have validated the utility of subjective measures of SES independent of the conventional objectives of SES (Phelan et al., 2010). Researchers have also asserted that subjective SES measures capture subtle aspects of SES more accurately than conventional objective measures of SES (Karvonen & Rahkonen, 2011; Operario et al., 2004). Subjective measures of SES are particularly important for research involving young adults due to the evolving nature of income and education during the developmental period of young adulthood; thus, objective measures of SES may not be valid indicators of SES with young adults (Williams et al., 2017).

This study utilized the subjective financial situation (SFS) measure of SES, which Williams et al. (2017) found to be associated with other commonly used measures of SES measures, further validating its use as a robust measure of SES amongst young adults.

**Instruments**

Instruments utilized in the study included the following: (a) Modified Erikson Psychosocial Stage Inventory (MEPSI; Darling-Fisher & Kline Leidy, 1988); (b) Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988); (c) Assessment of Spirituality and Religious Sentiments (ASPIRES; Piedmont, 2012); (d)
Texas Revised Inventory of Grief (TRIG; Faschingbauer et al., 1987); and (e) Posttraumatic Growth Inventory Expanded (PTGI-X; Tedeschi et al., 2017). Future research could include further investigation of these instruments (e.g., utilizing confirmatory factor analysis to further validate these measures for use with young adults who have experienced parental death). Although exploratory data analyses were utilized with some of the subscales of these instruments, future studies could further explore the use of the subscales and their corresponding constructs.

The descriptive statistics of the instruments utilized in the study revealed significant skewness and kurtosis for some instruments; however, skewness and kurtosis values were less than -1.3, which falls within acceptable limits (George & Mallery, 2010). Additionally, Cronbach’s alpha reliability coefficient for the measures used in the study ranged from .83 to .96, demonstrating good to excellent internal consistency for the instruments utilized.

MEPSI. For the MEPSI, the Cronbach’s alpha reliability coefficients were excellent and the same value (.96) for the total sample, non-loss group, and loss group. However, the subscale coefficients of the MEPSI for the total sample ranged from acceptable to good (.69 to .87). Hence, this study affirms the use of the MEPSI global scale, and further investigation is needed to validate the subscales of the MEPSI. Although not utilized in this study, a dichotomy (e.g., low, high) of scores can also be created with scores ≤3.9 classified as low, and scores ≥4 classified as high. Future research utilizing the MEPSI can utilize this dichotomy to explore group differences between individuals classified under the low scores of psychosocial developmental strength and high scores of psychosocial developmental strength.
**MSPSS.** For the MSPSS, the Cronbach’s alpha reliability coefficients were excellent for the total sample (.90), non-loss group (.91), and loss group (.89). The subscales of the MSPSS for the total sample were excellent as well: (a) .93 for the family subscale; (b) .96 for the friends subscale; and (c) .94 for the significant other subscale. This endorses the utilization of the subscales in future investigations. For example, in exploratory analysis, the non-loss group mean for the family subscale was significantly higher than the loss group mean at the .01 alpha level with a medium effect size. Thus, individuals in the loss group had significantly less family support than the non-loss group; this finding affirms previous findings related to the impact early parental death has on a family system (e.g., Jacobs & Bovasso, 2009; Wolchik et al., 2008) and thus the social support received from family.

The descriptive analysis of the instruments also revealed that the non-loss group mean for the total score of the MSPSS total (5.31) was higher than the loss group mean (4.98); in exploratory analyses, this was a significant difference at a .05 alpha level with a small effect size. Thus, individuals in the loss group had less social support when compared to the non-loss group. This general lack of social support aligns with past research that connects early parental death to the inability to sustain intimacy or avoidance of and hesitancy about intimacy (e.g., Hepworth et al., 1984; Jacobson & Ryder, 1969). The findings also affirm previous research that relates early parent death with social withdrawal and social skills deficits (e.g., Worden, 1996). Since the study examined young adults, it is also important to note Worden’s (1996) research, which explained that in the year immediately following the death, family and community supports tended to reinforce family resources and coping, but this support diminished in
the second year and led to feelings of isolation. Further investigation about the social support impact parental death has on an individual is warranted.

**ASPIRES.** For the ASPIRES, the Religious Involvement (RI) subscale and the Total Score of the Spiritual Transcendence (ST) components were utilized. Both the RI and the Total Score of ST had excellent Cronbach’s alpha reliability coefficients (.91 to .93). The RI subscale had .92 for the total sample, .91 for the non-loss group, and .93 for the loss group. The Total Score of ST had .92 for the total sample, non-loss group, and the loss group. Unfortunately, the subscales of the ST component for the total sample had unacceptable to excellent internal consistency; the coefficient alpha reliabilities for the ST subscales included .95 for Prayer fulfillment, .79 for Universality, and .38 for Connectedness. Hence, this study affirms the use of the Total Score of ST and how the ST component measures general spiritual transcendence; further investigation is needed to validate the subscales of the ST component of the ASPIRES, especially in light of the low reliability value obtained for the Connectedness subscale.

Additionally, further examination of the impact of early parental death on one’s spirituality is warranted. Exploratory data analysis found that the non-loss group mean for the total score of the ST component of the ASPIRES was significantly higher than the loss group mean at the .05 alpha level, with a medium effect. The non-loss mean score for the Prayer fulfillment subscale was significantly higher than the loss group mean at the .01 level, with a small-medium effect size. Similarly, exploratory data analysis found that the non-loss mean score for the Universality subscale was significantly higher than the loss group mean at the .01 level, with a small-medium effect size. Thus, the loss group had lower levels of spirituality, in general, and for Prayer fulfillment and
Universality specifically, when compared to the non-loss group. There was no statistically significant difference with the Connectedness subscale; as mentioned above, the Connectedness subscale has a very low reliability and may need to be validated through further investigation (e.g., confirmatory factor analysis).

For this current study, the Religious Crisis subscale, which had an alpha reliability of .82 for the total sample, was not used in the data analysis of the research questions. However, further investigation of the relationship between early parental death and religious crisis is warranted as exploratory data analysis found that that the non-loss mean score for the Religious Crisis subscale was significantly lower than the loss group mean at the .01 level, with a small-medium effect size. Thus, individuals in the loss group had higher levels of religious crisis when compared to the non-loss group.

TRIG. For the TRIG, the Cronbach’s alpha reliability coefficients were good for both the Past Disruption scale (.83) and Present Emotion scale (.88). Although not utilized in this current study, scores on the two scales can be combined to categorize respondents in to one of four grief reactions groups (i.e., absence of grief, delayed grief, prolonged grief, acute grief) that describe a respondent’s present emotional status regarding their grief process (Faschingbauer, 1981; Faschingbauer et al., 1987). Future research could classify participants into the four grief reaction groups to explore group differences.

PTGI-X. For the PTGI-X, the Cronbach’s alpha reliability coefficient for the total score was excellent (.94). However, the reliability coefficients for the domains of PTGI-X were mostly acceptable (e.g., .78 for New Possibilities; .76 for Personal Strength) or good (e.g., .88 for Relating to Others; .86 for Spiritual-Existential Change),
with one domain having questionable internal consistency (i.e., .64 Appreciation of Life). Hence, this study affirms the use of the PTGI-X total score; further investigation is needed to validate the subscales of the PTGI-X. The five domains could also be utilized in future research to provide a deeper exploration of the PTG construct.

**Research Questions**

**Research question 1.** The psychosocial developmental strength of the non-loss group was significantly higher than the psychosocial developmental strength of the loss group, affirming the researcher’s hypothesis. Thus, early parental death may have a negative impact on an individual’s psychosocial development throughout the lifespan. This finding supports previous research that notes the developmental challenges and lowered developmental competence experienced due to a parental death can be present throughout the lifespan (e.g., Balk, 1991; Biank & Werner-Lin, 2011; Clark et al., 1994; Dowdney, 2000; Edelman, 2006; Janowiak et al., 1995; Knox, 2007; Levin, 1966; Manning, 1998; Raza et al., 2008; Webb, 2003; Worden, 1996; Worden & Silverman, 1996).

Exploratory data analysis also revealed that the means of all of the subscales of the MEPSI for the loss group were significantly lower than the means of the non-loss group at the .05 alpha level, with small to medium effect sizes. Thus, individuals in the loss group had lower levels of psychosocial developmental strength in all stages of Erikson’s (1963) psychosocial development. This finding is congruent with Erikson’s (1963) theory that asserted if an individual successfully masters the crisis of a stage, the individual emerges from the stage with the corresponding virtue, which enhances the transition to the next stage. On the other hand, failure to resolve the crisis successfully
can lead to continued challenges related to that stage, despite the individual moving on chronologically to face the crises of the future stages. Furthermore, Erikson (1963) stated that at each stage, challenges of future stages are present in a prefiguring form as well. Hence, individuals who have experienced an early parental death may be at a psychosocial developmental disadvantage throughout the lifespan.

**Research question 2.** To address the second research question, the researcher examined whether statistically significant differences in psychosocial developmental strength existed among sub-group variables, which included the following: (a) demographic variables (e.g., gender, SES, ethnicity, age); (b) cause of parental death, (d) gender of deceased parent; (e) age when death occurred; (f) and level of closeness to the deceased. Due to the utilization of a Bonferroni per comparison α (.05/8 = .006), analysis was conducted at the one-tailed level with alpha levels set at .006, and no statistically significant differences were found for any of the sub-group variables.

**Gender.** The mean score of the MEPSI global scale for males was non-significantly higher than the mean score for females at the .006 alpha level set for this research question (p = .020). However, gender might have an impact on the levels of psychosocial development in individuals who experienced an early parental death, and more research is needed to investigate this; this might be particularly relevant since Erikson (1963, 1982) emphasized an individual’s environment and culture influence psychosocial development. In other words, the sociocultural forces around gender might impact psychosocial development. However, in light of the relationship between psychosocial development and positive mental health adaptation (e.g., Erikson, 1963; Malone et al., 2016; Pynoss et al., 1995; Starks et al., 2017; Whitbourne et al., 2009; Wilt
et al., 2010), the non-significant result between genders is comparable to the mixed results of the research investigating gender as a risk factor in the adjustment to early parental death (e.g., Appel et al., 2013; Berg et al., 2016; Brent et al., 2009; Geulayov et al., 2012; Gray et al., 2011; Kendler et al., 2002; Rostila et al., 2016).

Race/Ethnicity. There was not a statistically significant difference between race/ethnicity groups of White, Hispanic/Latino/Spanish, and Black/African American. Thus, early parental death might have a similar impact across race/ethnic groups, speaking to the universality of psychosocial development across cultures. Again, considering the relationship between psychosocial development and positive mental health adaptation, it is important to note that ethnicity has not been investigated in connection with the adaptive functioning of early parental death. However, more research is needed to explore the impact of race/ethnicity on psychosocial development, especially since Erikson (1963, 1982) emphasized the role of sociocultural influences on psychosocial development. In other words, sociocultural factors related to race and ethnicity might impact psychosocial development.

SES. Although mean scores of the MEPSI global scale for participants of a lower SES were lower than those for participants of a higher SES (see Table 32), the difference was not statistically significant at the .006 alpha level ($p = .014$). However, SES may have an impact on the levels of psychosocial development in individuals who have experienced an early parental death; more research is needed to explore this. Considering the relationship between psychosocial development and positive mental health adaptation as discussed previously, the non-significant trend of individuals of a lower SES having lower levels of psychosocial developmental strength might not be surprising considering
that lower SES is an established risk factor for successful adaptation to early parental death (e.g., Berg et al., 2014; Dowdney, 2000; Jacobs & Bovasso, 2009; Kaplow et al., 2010; Luecken & Roubinov, 2012; Stikkelbroek et al., 2016; Werner-Lin et al., 2010; Wolchik et al., 2008). Thus, more research is needed to investigate the impact of SES on psychosocial development, especially since sociocultural factors related to SES might impact psychosocial development (Erikson, 1963, 1982).

**Age.** The 28 and 29 years old age group had the highest mean scores of the MEPSI global scale compared to the other age groups; the difference was not statistically significant. Thus, early parental death might have a similar impact across young adulthood. Conversely, age differences might not have been detectable since a single age group, young adulthood (20-29 years old), was a criterion of the study. Future research could explore ages across the lifespan to examine the psychosocial developmental strength differences between age groups. However, the non-significant trend for older young adults having higher psychosocial developmental strength in this study is congruent with Erikson’s (1963, 1968, 1980, 1982) conceptualization that psychosocial developmental strength generally increases throughout the lifespan (Darling-Fisher & Kline Leidy, 1988). Nevertheless, in light of the relationship between psychosocial development and positive mental health adaptation as discussed previously, the results of this study affirm Jacobs and Boavsso’s (2009) findings that an individual’s current age does not impact the ability to positively adapt to early parental death.

**Cause of parental death.** Among participants in this study, there was not a statistically significant difference between the causes of parental death. Thus, early parental death might have a similar impact across different causes of parental death. This
phenomenon might be explained by psychosocial development’s relationship with positive mental health adaptation as already discussed. For instance, some researchers have asserted that external causes (e.g., accident, homicide, suicide), substance abuse related causes, and other sudden or unexpected causes of parental death could lead to greater maladaptation than anticipated deaths, natural deaths, or deaths causes by disease (e.g., Appel et al., 2013; Berg et al., 2016; Eth & Pynoos, 1994; Kaplow et al. 2014; Melhem et al., 2008; Merlevede et al., 2004; Nyhlen et al., 2011; Parkes, 1998; Pynoos; Rostila & Saarela, 2011; Rostila et al., 2016; Wahlbeck et al., 2011; Wilcox et al., 2010), while other researchers have asserted that disease or natural causes of parental death could lead to lower levels of adaptation compared to other types of parental death (e.g., Cerel et al., 2006; Kaplow et al., 2014; Krattenmacher et al., 2012; Siegel et al., 1996). Thus, the non-significant differences between the types of parental death might be associated with other factors such as the circumstances around the death rather than the death itself (Cerel et al., 2006; Kaplow et al., 2014) or exposure to familial risk factors such as negative parenting and home environments (e.g., Berg et al., 2016; Rostila et al., 2016). Regardless, future research could investigate the unique impact of specific types of parental death.

*Gender of deceased parent.* There was not a statistically significant difference between the genders of the deceased parent (e.g., biological father; biological mother). Thus, early parental death may have a similar psychosocial developmental impact despite the different genders of the deceased parents. In light of psychosocial development’s relationship with positive mental health adaptation as previously noted, the non-significant result is comparable to the mixed results of previous research investigating
gender of the deceased parent as a risk factor in the adjustment to early parental death (e.g., Appel et al., 2013; Berg et al., 2016; Brent et al., 2009; Geulayov et al., 2012; Gray et al., 2011; Kendler et al., 2002; Rostila et al., 2016). However, the non-significant difference of individuals who experienced the death of a biological father having lower levels of psychosocial developmental strength compared to individuals who experienced the death of a biological mother affirmed Jacobs and Bovasso (2009) finding that the death of a father increases the risk for maladjustment. Nevertheless, the quality of parental relationships, a factor in the adjustment to parental death (e.g., Clark et al., 1994; Dowdney, 2000; Howell et al., 2015; K. K. Lin et al., 2004; Luecken & Roubinov, 2012; Melhem et al., 2008; Sandler et al., 2003; Wolchik et al., 2008), might be more influential than the gender of the surviving parent.

*Age when parental death occurred.* Although analysis affirmed the researcher’s hypothesis, finding that the 13 to 15 years old group had lower MEPSI global scale scores compared to the 16 to 19 years old group, the difference was not statistically significant. Thus, early parental death might have a similar impact despite the age when the parental death occurred. However, age differences might not have been detectable because of the criterion of the parental death occurring in only adolescence. The non-significant trend for individuals who experienced a parental death at a younger age having less psychosocial developmental strength might be explained by the relationship between psychosocial development and positive mental health adaptation, as previously discussed. For example, parental death occurring at younger ages is a risk factor for affective disorders and self-inflicted injuries throughout the lifespan (e.g., Appel et al., 2013; Berg et al., 2016; Niederkrotenthaler et al., 2012; Rostila et al., 2016). Future
research could explore the ages before adolescence to examine the psychosocial developmental strength differences across a broader range of ages when the parental death occurred.

*Level of closeness to the deceased parent.* Among the parentally bereaved, the level of closeness to the deceased parent is a risk factor for maladjustment, with the closer the relationship to the deceased, the higher the risk (e.g., Brent et al., 1993; Melhem et al., 2008). Thus, in light of psychosocial development’s relationship with positive mental health adaptation, as previously discussed, the researcher hypothesized that young adults who had a closer relationship with their deceased parent would have lower psychosocial developmental strength. Contrary to this hypothesis, participants who were closer to the deceased parent had higher levels of psychosocial developmental strengths; however, this difference was not statistically significant. Thus, early parental death might have a similar psychosocial developmental impact across levels of closeness to the deceased parent.

Psychosocial development and adaptive functioning are related but separate constructs. The differences between the constructs might explain the study’s failure to affirm the researcher’s hypothesis. More research is needed to explore the relationship between these constructs, which could help explain the potential for the closeness level to a deceased parent to promote psychosocial developmental strength, but still create challenges to adaptive functioning. In addition, future research could also utilize a more objective measure of closeness.

The relationship between psychosocial development and posttraumatic growth might also explain this finding of the study. First, the MEPSI (global scale) and the
PTGI-X (total score) had a positive correlation, which was statistically significant \((r = .532, p < .001)\), with a large effect size. This affirms the theorization that there is a relationship between psychosocial development and PTG and that the processes of psychosocial development and PTG are similar (see Chapter 2; Eve & Kangas, 2015). Secondly, there was a statistically significant difference in PTG between levels of closeness at the .006 alpha level, with a small effect size; Tukey’s post hoc test indicated a significant difference with a very large effect size in the means for PTGI-X between participants who selected *Closer than any relationship I’ve ever had before or since* to describe their level of closeness to their deceased parent and participants who selected the *Not very close at all* option. Hence, participants with closer relationships with the deceased parent had higher levels of PTG. This may be connected to the research that emphasized that the severity of the stressor leads to greater levels of PTG (e.g., Barakat et al., 2006; Ickovics et al., 2006); in other words, deaths of closer relationships can lead to greater levels of distress. Perhaps the closeness of the relationship with the deceased parent causes developmental strength in a similar fashion to PTG. Thus, more research is needed to explore the relationship between PTG and psychosocial development, along with the impact of the level of closeness to a deceased parent on psychosocial development in parentally bereaved individuals.

**Research question 3.** The results of the study affirmed the researcher’s hypothesis that psychosocial development would be positively correlated with social support, which was a statistically significant relationship \((r = .442, p < .001; \text{medium-large effect size})\); this affirms Erikson’s (1963, 1982) psychosocial theory that an individual’s environment, including social relationships, influences psychosocial
development. Furthermore, the relationship between psychosocial development and positive mental health adaptation, as discussed previously, parallels the research that has established social support—manifested as expressive coping and speaking openly about the parental death—as protective factors for adaptive functioning for individuals who have experienced a parental death (e.g., Howell et al., 2015; Saler & Skolnick, 1992; Shapiro et al., 2012).

Similarly, the results of the study affirmed the researcher’s hypothesis that psychosocial development would be positively correlated to religiosity, which had a statistically significant relationship \((r = .317, p < .001; \text{medium effect size})\), and spirituality, which also had a statistically significant relationship \((r = .398, p < .001; \text{medium-large effect size})\). Like social support, spiritual beliefs and religious practices (e.g., church attendance) are protective factors of adjustment to a parental death (e.g., Andrews & Marotta, 2005; Howell et al., 2015). Likewise, religiosity and spirituality can be a part of an individual’s social environment and culture, which are forces that influence psychosocial development (Erikson 1963, 1982).

Psychosocial development was positively correlated to PTG, with a statistically significant relationship \((r = .532, p < .001; \text{large effect size})\). This supports Eve & Kangas’s (2015) assertion that there is a relationship between psychosocial development and PTG (see Chapter 2). Similar to Erikson’s (1963, 1982) theory that an individual’s environment and culture influence psychosocial development, the sociocultural context surrounding an individual influences the development of PTG as well (Calhoun et al., 2010).
Social support was positively correlated to religiosity \((r = .360, p < .001; \text{medium effect size})\) and spirituality \((r = .440, p < .001; \text{medium-large effect size})\), which were both statistically significant relationships. Religiosity could be evidenced by regular attendance at religious services. Spirituality could involve a spiritual community as well; for example, supportive relationships with caring adults can provide spiritual comfort to bereaved children (Andrews & Marotta, 2005). Thus, these manifestations of religion and spirituality could promote a sense of community or social support and connection (Howell et al., 2015).

Social support was also positively correlated to PTG, which was a statistically significant relationship \((r = .489, p < .001; \text{large effect size})\). This is congruent with research that states social support plays as an important role in the process of PTG (e.g., Aguirre, 2008; Meyerson et al., 2011; Michael & Cooper, 2013; Wolchik et al., 2009; Wolfe & Ray, 2015). The process of PTG involves self-analysis and self-disclosure in a social context, and the amount of PTG is related to the amount of support provided and having positive models of change (Calhoun et al., 2010; Calhoun & Tedeschi, 1998b; Tedeschi & Calhoun, 2004b). When exploring the subscales of MSPSS (e.g., family, friends, significant other) during exploratory data analysis, significant relationships at the .01 alpha level were found with PTGI-X. The family subscale had a positive relationship with PTG \((r = .405, p < .001; \text{medium-large effect size})\). The friends subscale also had a positive relationship with PTG \((r = .374, p < .001; \text{medium effect size})\). The significant other subscale had a positive relationship with PTG \((r = .305, p < .001; \text{medium effect size})\). Family social support had the strongest relationship with PTG, with a medium to large effect size. This is congruent with Wolchik et al.’s (2009) finding that parental
support for bereaved adolescents was significantly correlated with PTG when compared to other types of social support.

Religiosity as measured by the Religious Involvement subscale of the ASPIRES was positively correlated with spirituality as measured by the Total Score of the Spiritual Transcendence component ($r = .716, p < .001$; large effect size). This finding speaks to the relationship between religiosity and spirituality. Although separate constructs (spirituality often refers to an individualistic and open-ended quest and religiosity refers to doctrinal, institutional, ritual, and authoritarian aspects of a specific creed; Koenig, McCullough & Larson, 2001), Yonker, Schnabelrauch, and DeHaan (2012) concluded that empirical research reveals areas of both uniqueness and cohesion between spirituality and religiosity (Zinnbauer et al., 1997). Furthermore, research on the religious faith of American adolescents and young adulthoods found that non-religious spirituality was rare (e.g., C. Smith, 2003; Yonker et al., 2012).

Religiosity and spirituality were both related to PTG. PTG had a positive relationship with religiosity ($r = .479, p < .001$; large effect size) and spirituality ($r = .555, p < .001$; large effect size), which were both statistically significant relationships. These findings support the existing literature. First, traumatic experiences such as early parental death can lead to a deepening of religion and/or spirituality (Milam et al., 2004; Shaw et al., 2005), which is related to the spiritual development domain of PTG. Other researchers have affirmed the relationship between PTG and spirituality (e.g., Meyerson et al., 2011; Michael & Cooper, 2013; Prati & Pietrantoni, 2009). Furthermore, positive religious coping, religious participation, religious openness, and intrinsic religiousness have been associated with PTG (e.g., Milam et al., 2004; Shaw et al., 2005).
Finally, the two scales of the TRIG (i.e., Past Disruption; Present Emotion) had a positive relationship \( (r = .464, p < .001; \text{medium-large effect size}) \) with each other, which was statistically significant. Generally, low levels of past grief can be related to low levels of grief in the present, and vice versa. These relationships speak to the absence of grief, which describes individuals who report low levels of life disruption, somatic symptomatology, and feelings associated with grief both in the past and the present, and prolonged grief, which describes respondents who report high levels of grief in the past and the present (Faschingbauer, 1981; Faschingbauer et al., 1987). Additionally, individuals could experience delayed grief or acute grief; delayed grief describes individuals who report low-level grief feelings and behaviors in the past, but their present grief is high; acute grief describes respondents who had an intense reaction to the death in the past but currently exhibit low levels of grief (Faschingbauer, 1981; Faschingbauer et al., 1987). More research is needed to explore the factors that contribute to an individual’s grief categorization regarding early parent death.

Non-significant relationships existed between: (a) psychosocial development and past \( (r = -.262, p = .003) \) and present \( (r = -.023, p = .798) \) grief levels, (b) social support and past \( (r = .008, p = .929) \) and present \( (r = .117, p = .118) \) grief levels, (c) past levels of grief and religiosity \( (r = .102, p = .251) \) and spirituality \( (r = .102, p = .151) \), (d) present levels of grief and religiosity \( (r = .138, p = .120) \) and spirituality \( (r = .199, p = .024) \), and (e) PTG and past \( (r = .128, p = .151) \) and present \( (r = .209, p = .018) \) levels of grief. Regarding grief levels and psychosocial development, this finding is contrary to previous research that discusses how severe grief reactions after a parental death can lead to negative adaptive functioning (e.g., Dowdney, 2000; Melhem et al., 2011) and
development (Biank & Werner-Lin, 2011; Webb, 2003; Worden, 1996), especially when considering the relationship between psychosocial development and mental health adaptation as previously noted. However, the positive relationship between psychosocial development and grief symptoms or levels may speak to how the developmental tasks of adolescence and the tasks of mourning are similar from a psychodynamic perspective (Freud, 1958; Lampl-deGroot, 1960).

Both past and present levels of grief appear to be non-significantly related to the other variables. However, it is important to note that grief is a very complex experience that varies depending on developmental level, culture, spiritual or religious beliefs, and prior life experiences (Kaplow et al., 2012). Furthermore, youth are highly dependent on their immediate caretaking environment to facilitate their grief and mourning (Shapiro et al., 2014), and to make meaning of their loss (Kaplow et al., 2012); the immediate caretaking environment was not examined in this study. Moreover, the findings are congruent with literature that presents mixed results regarding the relationship between grief and PTG (e.g., Calhoun & Tedeschi, 2001; Davis et al., 1998; Gamino et al., 2000; Taku et al., 2015; Talbot, 2002) and the potential for an inverted-U-shaped relationship between grief and PTG (e.g., Taku et al., 2015). Thus, deeper investigation of grief levels and PTG is warranted. Finally, since children can use spirituality to give meaning to their grieving process, a child’s perception of an ongoing and personal relationship with the deceased within a spiritual context could be a primary component to effective coping (Andrews & Marotta, 2005). Considering the relationship between social support and religiosity (Howell et al., 2015), more research is needed to explore the relationship between grief and religiosity/spirituality.
Research question 4. As hypothesized, variables in block two (e.g., psychosocial development, social support, religiosity/spirituality, current grief levels) predicted about 37% of the variance of PTG, above and beyond the variables in block one (e.g., gender, ethnicity, age, past grief levels, years since death), which significantly predicted 17% of the variance. Both blocks accounted for a total of 54% of the variance, which is a large effect size.

For both models of the sequential regression, gender added significantly to the prediction of PTG with males adding more than females. This is contrary to some previous research, which states that women tend to experience more PTG than men (e.g., Helgeson et al., 2006; Meyerson et al., 2011; Vishnevsky et al., 2010; Weiss, 2014). However, it is important to note that gender is not theoretically linked to PTG (Calhoun et al., 2010; Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004b) and some research that examined the relationship between PTG and gender in bereaved adolescent samples found non-significant correlations (e.g., Ickovics et al., 2006; Milam et al., 2004; Oltjenbruns, 1991; Polatinsky & Esprey, 2000; Wolchik et al., 2009). Thus, the literature on PTG and bereavement is inconclusive regarding gender; more research is needed to explore the complexity of gender or other variables that account for gender differences.

Model 1. For the first model, ethnicity, age, and years since death also added significantly to the prediction of PTG. The predictive nature of ethnicity is contradictory to bereavement studies that have examined the relationship between PTG and ethnicity in adolescent samples and found non-significant correlations (Milam et al., 2004; Oltjenbruns, 1991). However, this result is congruent with general meta-analyses on PTG of youth and adults who experienced a wide variety of stressors/events (including
bereavement) that found minorities reported greater growth than non-minorities (e.g., Helgeson et al., 2006; Meyerson et al., 2011). Furthermore, Sinha and Verma (1994) asserted that allocentrism—a characteristic of collectivist cultures where the self is defined as more interdependent than independent—is related to social support, which is an established correlate of PTG (e.g., Aguirre, 2008; Meyerson et al., 2011; Michael & Cooper, 2013; Wolchik et al., 2009; Wolfe & Ray, 2015).

Although age is not theoretically linked to PTG (Calhoun et al., 2010; Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004b), Milam et al. (2004) found that age was positively associated with PTG. Thus, this study’s finding confirmed the research stating that age and PTG were positively correlated. Eve and Kangas (2015) have noted the relationship between PTG and cognitive development, asserting that older individuals have greater levels of cognitive development and are thus able to think complexly about their loss, which could facilitate more PTG. Findings in this study were also congruent with Wolchik et al. (2009), who found that the time since death was negatively related to PTG and Meyerson et al. (2011), who found that PTG in youth might decay over time more quickly when compared to adults.

*Model 2.* For the second model, past levels of grief, spirituality, social support, and psychosocial development also added significantly to the prediction of PTG. Researchers have found a positive relationship between PTG and subjective psychological distress, such as grief (Meyerson et al., 2011), which is incongruent with this study’s findings. However, bereavement studies specifically have found a negative relationship between distress/grief and PTG (e.g., Davis et al., 1998; Gamino et al., 2000), which is congruent with this study’s findings. Although Calhoun and Tedeschi
(2001) suggested that some distress or grief might be a necessary for PTG to occur, Talbot (2002) suggested that significant distress or grief could inhibit PTG.

As noted, research has shown that traumatic experiences such as early parental death could lead to a deepening of spirituality (Milam et al., 2004; Shaw et al., 2005), which is a domain of PTG. Various studies and meta-analyses also document a positive relationship between PTG and spirituality (e.g., Meyerson et al., 2011; Michael & Cooper, 2013; Prati & Pietrantoni, 2009). It is interesting to note that spirituality was significantly predictive of PTG and religiosity was not, especially in light of the statistically significant correlation between PTG and religiosity in this study and previous research. Although spirituality and religiosity are related, this affirms that they are separate constructs with unique characteristics (Koenig et al., 2001; Yonker et al., 2012; Zinnbauer et al., 1997). The results also showed a positive relationship between PTG and social support, which confirms previous research (e.g., Aguirre, 2008; Meyerson et al., 2011; Michael & Cooper, 2013; Wolchik et al., 2009; Wolfe & Ray, 2015). Although religiosity did not contribute significantly to the prediction of PTG like some researchers have found (e.g., Helgeson et al., 2006; Milam et al., 2004; Prati & Pietrantoni, 2009; Shaw et al., 2005), religiosity or religious involvement might be accounted for as social support (e.g., Andrews & Marotta, 2005; Howell et al., 2015; Meyerson et al., 2011).

For participants in this study, psychosocial development was the largest predictor of PTG. This is a novel finding because an explicit developmental perspective, specifically psychosocial and cognitive development, is missing from the theoretical conceptualization of PTG (e.g., Aldwin & Levenson, 2004; Eve & Kangas, 2015). Specifically, literature considering the PTG phenomenon in relation to psychosocial and
cognitive developmental is scarce (Eve & Kangas, 2015). The relationship is affirmed by the theoretical literature proposed by Joseph and Linley (2008c) that PTG might be a continuation or amplification of life span developmental trajectories, and PTG would promote the actualization of human potential to move toward self-transcendence as a developmental trajectory. The movement towards self-transcendence also affirms the significantly correlated relationship between PTG and spirituality found in this study. Furthermore, Erikson’s (1982) theory on the process of developmental growth throughout the lifespan (i.e., the reconciliation of two conflicting forces during a stage, the mastery of the challenge of the stage, and the emergence from the stage with the corresponding virtue) is similar to PTG in that the reevaluation of schemata following a traumatic event could result in positive growth (e.g., Calhoun et al., 2010; Eve & Kangas, 2015). Finally, the positive changes associated with PTG are often inherent in key phases of psychosocial development; PTG might represent an accelerated form of cognitive maturation within psychosocial development (Eve & Kangas, 2015).

**Limitations**

The causal comparative and correlational research design does not indicate causal relationships between the variables investigated. Future investigations could utilize more rigorous research methods (e.g., experimental, longitudinal) to explore these variables. Furthermore, this study is retrospective, examining an event that happened in adolescence from the perspective of a young adult; thus, participants might have been prone to recall bias. Future research could investigate the experience of adolescents shortly after they experience a parental death. Longitudinal studies could capture changes throughout the lifespan more effectively. Future research could also utilize larger sample sizes to
produce greater power to detect differences between means. Relatedly, sub-demographic groups of this study with fewer than 10 participants were not included in data analyses due to the limitation of power and interpretation of groups with small sample sizes and a desire to avoid type I error. Future studies could utilize larger sample sizes that obtain sufficient sub-demographic group sizes for inclusion in data analyses. In addition, this study utilized Bonferroni corrections for the analyses of the study; the chances for a type I error to occur decreased, but power was impacted, and the chance for a type II error increased.

Due to the use of electronic survey via Qualtrics, the participants might not have been in a controlled environment, which is a threat to external validity. Future research should take this into consideration. Moreover, the Flesch-Kincaid Readability Grade Level of 5.8 might not be conducive to participants who possess a lower reading level. Relatedly, the amount of time and number of items needed to complete the survey might have contributed to testing fatigue in the participants, especially for those who had lower reading levels. In addition, due to the length of the survey, demographic information obtained was limited. Future research could gather more demographic data (e.g., religious affiliation, education levels, geographic location) to investigate more demographic differences of the variables utilized in this study.

Utilizing Qualtrics Panels allows the specification of particular characteristics of a sample. However, the use of Qualtrics Panels restricts a sample to individuals with computers and access to the Internet. In addition, Qualtrics online panels do not perfectly represent the general population, impacting the generalizability of the study. However, Dixon et al. (2016) asserted that using Qualtrics Panels, while not a random sample,
provides greater demographic variability when compared to a student sample typically used in social science research. This tool also gives access to a more representative national sample than is typically available through local recruitment (Soucy & Hadjistavropoulos, 2017). Although Qualtrics Panels aims to yield nationally representative samples, self-selection of participants can occur as well. Qualtrics Panels have successfully obtained samples that closely mirror target populations or samples that are deemed to be representative based on available research of the populations under investigation or (e.g., Dixon et al., 2016; Soucy & Hadjistavropoulos, 2017). Further, many researchers (e.g., Bertrand et al., 2014; Cheng, 2014; Rolison et al., 2012) have published research utilizing Qualtrics Panels in reputable journals, and Qualtrics Panels has become a prevalent recruitment method (e.g., Bertrand et al., 2014; Rolison et al., 2012; Soucy & Hadjistavropoulos, 2017; van Wagenen et al., 2015).

Early parental death is very complex, and not all variables (e.g., risk and protective factors of adaptation, correlates of PTG) were investigated due to the length of the survey. Since children highly depend on their immediate caretaking environment to facilitate their grief and mourning (Shapiro et al., 2014), and to make meaning of their loss (Kaplow et al., 2012), future research could focus on parental relationships. For example, previous researchers have emphasized that parenting and the quality of the relationship between the surviving caregiver and bereaved child is a well established factor in successful adaptation (e.g., Clark et al., 1994; Dowdney, 2000; Howell et al., 2015; K. K. Lin et al., 2004; Luecken & Roubinov, 2012; Lutz et al., 2007; Melhem et al., 2008; Saldinger et al., 2004; Sandler et al., 2003; Sandler et al., 1988; Shapiro et al., 2014; Wolchik et al., 2006).
This study also focused on biological fathers or mothers. Future directions for research could include the investigation of other types of parental figures or caregivers. In addition, youth could experience other types of parental loss such as divorce, separation, and military deployment that could be investigated in future research. This research also focused specifically on young adults and adolescents. Other developmental stages could be investigated to provide an even more robust lifespan perspective.

Despite these limitations, the explorations of these variables address gaps in the literature and develop a foundation for future studies. For instance, by studying the PTG of young adults who experienced early parental death during adolescence, the study contributes to the limited literature on the role of time in PTG, and the long-term trajectory and process of PTG. Furthermore, few studies (e.g., Brewer & Sparkes, 2011; Hirooka et al., 2017) exist on PTG exclusively in early parental death and fewer investigate when the death occurred specifically in the developmental period of adolescence; this study addresses the unique implications of parental death during adolescence.

**Implications**

Presently, the risk and protective factors of early parental death inform the current approaches to providing support to parentally bereaved youth (e.g., the Family Bereavement Program; Lutzke et al., 1997; Sandler et al., 2016). Other approaches include the application of attachment theory and cognitive behavioral theory; these approaches seek to augment parent-child relationships positively and enhance coping skills of parentally bereaved youth (e.g., Haine et al., 2003; Sandler et al., 2010; Wolchik et al., 2008). Moreover, supporting surviving caregivers in their grief and adaptation is
paramount to promote effective parenting (e.g., effective communication about the
death), which reduces mental health problems of bereaved children (e.g., Howell et al.,
2015; Lutzke et al., 1997; Saldinger et al., 2004; Shapiro et al., 2014). This effective
parenting includes the surviving caregiver fulfilling his or her critical role in facilitating
grief and mourning in their bereaved children by promoting coping skills (e.g.,
expressive communication), self-esteem, and accessing support systems (e.g.,
bereavement youth camps, support groups; Kaplow et al., 2012; Shapiro et al., 2012).
The implications of this study are relevant to various types of counselors. Clinical mental
health counselors and college counselors could benefit from the findings of this study to
their direct work with individuals who have experienced an early parental death.
Similarly, family counselors who are working with families impacted by early parental
death, group counselors, and facilitators for grief support groups could benefit from the
information. School counselors could also benefit since they encounter students who
have experienced early parental death.

The results of this study build upon the current approaches by emphasizing
positive outcomes (i.e., PTG) and a developmental perspective. Although current
approaches utilize protective factors to promote resilience and successful adaptation to
early parental death, consideration of the possible positive changes and personal growth
of individuals following the death of a parent was lacking. Having an understanding of
how to facilitate personal growth or PTG from adverse experiences such as early parental
death equips counselors to support bereaved individuals effectively and shape current
approaches to grief and loss at large. Thus, counselors can learn not only to assess and
promote the resiliency and protective factors of individuals who have experienced the
death of a parent, but also to facilitate the personal growth that can come from this experience. This is imperative because individuals who experience PTG also experience lower levels of these negative and maladaptive symptoms (e.g., Gamino & Sewell, 2004; Ickovics et al., 2006; Meyerson et al., 2011; Michael & Cooper, 2013; Milam et al., 2004; Milam et al., 2005; Wolchik et al., 2009). Assessing for and normalizing positive outcomes without implying that there is anything inherently positive about the loss, which could minimize the pain and suffering an individual might experience from a loss, is critical (e.g., Michael & Cooper, 2013; Tedeschi, Calhoun, & Grolleau, 2015). Instead, counselors could simply recognize, reflect, and highlight the themes of PTG in the client’s narrative (Tedeschi et al., 2015). It is also important that counselors do not initiate the cognitive processes of PTG or conversations about PTG soon after the death of a parent when a client is still emotionally dysregulated unless the client initiates the discussion; similarly, counselors should not suggest that individuals must experience positive growth; though common, PTG it is not a universal experience or a necessary outcome for full trauma recovery (Tedeschi et al., 2015).

This study found that social support might be imperative in facilitating PTG. This is essential since the loss of a social relationship (such as the relationship with a parent) could lead not only to less contact with friends or relatives, but also to negative changes in the relationship with the surviving caregiver (i.e., surviving caregiver being less emotionally available), which can threaten a child’s sense of social relatedness (Wolchik et al., 2008). This could also lead to a parentally bereaved child’s reluctance to seek support, which might hinder the ability to integrate the parental death into one’s current life and to manage high levels of grief (Wolchik et al., 2008). Thus, it is imperative to
assess for and promote social support with parentally bereaved individuals, which could include peer (Dopp & Cain, 2012) and family support, along with organized social activities (e.g., youth camps) that focus on supporting grieving children (Howell et al., 2015). The availability of support groups throughout the ongoing nature of childhood grief process to normalize the experience is also important (Biank & Werner-Lin, 2011). Counselors should consider that the process of PTG involves self-analysis and self-disclosure in a social context, which could be within the context of therapeutic relationship, and that the amount of PTG obtained is related to the amount of support provided and the availability of positive models of change (Calhoun et al., 2010; Calhoun & Tedeschi, 1998b; Tedeschi & Calhoun, 2004b).

This study also found that spirituality might be important in facilitating PTG. This is especially important since assisting children and families identify belief systems could help them make meaning of their loss and maintain a feeling of connectedness to the deceased (Howell et al., 2015). Furthermore, spirituality could be used to give meaning to the grieving process, and the perception of an ongoing and personal relationship with the deceased could be a primary component to effective and healthy coping (Andrews & Marotta, 2005). Counselors need to have competence in spiritual issues when working with parentally bereaved individuals, especially since grief varies depending on developmental level, culture, and spiritual or religious beliefs (Kaplow et al., 2012). In other words, counselors should be prepared working with clients who raise spiritual and existential issues after the loss (Michael & Cooper, 2013).

Finally, this study found that psychosocial development might be especially imperative in facilitating PTG in young adults who experienced an early parent death.
during adolescence. Not only does this study support the theoretical relationship between psychosocial development and PTG (Eve & Kangas, 2015), it also promotes approaches that focus on the attainment of developmental tasks and competence, or the lifelong life long process of grief (i.e., youth grow in their understanding of their loss and experience grief resurgence during different developmental transitions and stages; Blank & Werner-Lin, 2011). Brent et al. (2012) also suggested that it is important to consider assessment and intervention focused on the attainment of developmental competency among clients who have experienced early parental death. A focus on coping efficacy and re-engagement of the mastery or enhancement of developmental tasks disrupted by death could reduce the intensity of grief as well (Wolchik et al., 2008). Focus on the developmental tasks of adolescence when the death occurred (e.g., identity) and tasks of young adulthood (e.g., intimacy) may be particularly important to investigate in counseling. Furthermore, psychosocial development can subsume the importance of social support and spirituality considering the link between the inner and outer reality of an individual within Erikson’s theory (Marcia & Josselson, 2013) and how an individual’s sociocultural influences impact psychosocial development (Erikson, 1963). In addition, promoting psychosocial development in bereaved individuals is especially important because culture also plays a primary role in the process of grief (e.g., how the loss is mourned; what is perceived as a loss; Prieto, 2011). This study’s findings suggest that psychosocial development is negatively impacted by early parental death during adolescence.

Similarly, by studying the PTG of young adults who experienced early parental death during adolescence, the finding informed how to sustain PTG throughout the
lifespan, especially in light of the potential of PTG to decay over time (Meyerson et al., 2011; Wolchik et al., 2009). This is important because young adults are vulnerable to regressing to the developmental period during which their loss occurred (Levin, 1966), experiencing resurgences of grief (Knox, 2007). Therefore, services should not only address needs immediately after the parental death, but also be available to youth and their families throughout the lifespan to support the youth as they grow in their understanding of their loss, especially during different developmental transitions and stages when grief resurgences can occur (Biank & Werner-Lin, 2011).

**Counselor Education**

Although this study specifically explored early parental death, it is important to note that grief and loss are ubiquitous in nature because they encompass various aspects of the human experience besides death (e.g., normative life-cycle transitions, career change, illness, divorce, substance abuse and recovery, trauma; Horn et al., 2013). Thus, this study could inform general grief and loss education provided to counselors by counselor educators and supervisors. This is especially important because not all counselors are sufficiently trained to provide grief counseling or feel comfortable doing so (Ober et al., 2012), especially to individuals experiencing early parental death. Furthermore, grief and loss topics are not found in the Council for Accreditation of Counseling and Related Educational Programs (CACREP) standards for accreditation (CACREP, 2016); thus, counselors might not receive formal training in grief and loss at all. Moreover, counselors who do provide grief counseling report that they are unfamiliar with current and empirically supported theories of grief counseling (Ober et al., 2012), often citing familiarity with only Kubler-Ross’s (1969) stage theory of grief, which has
shaped popular thinking on grief (Crunk et al., 2017) but has not been empirically supported (Maciejewski et al., 2007). Thus, counselors may even be trained in or utilize invalidated theories (Ober et al., 2012). This study helps align grief and loss education for counselors with contemporary empirical research, which has moved away from stage models (e.g., Kubler-Ross) and a linear, uniform process, to a more idiosyncratic and complex experience impacted by an individual’s personality, experiences, and cultural context (e.g., Center for the Advancement of Health, 2004; Crunk et al., 2017; Doughty, 2009; Horn et al., 2012; Horwitz & Wakefield, 2007; Humphrey, 2009; Prieto, 2011). More research is needed to understand new models of grief and loss and how to integrate modern grief and loss education into counselor education, better preparing counselors to obtain the crucial skill of supporting the clients adjusting to loss (Horn et al., 2012).

**Conclusion**

This study contributed to the limited literature on PTG and early parental death, especially when the death occurred specifically during the developmental period of adolescence. Examining young adults who have experienced an early parental death during adolescence, this study brought more insight into the long-term impact early parental death has on development throughout the lifespan. Furthermore, this investigation contributed to the limited literature on the long-term trajectory of PTG in individuals who experienced early parental death and sustaining PTG throughout the lifespan.

The purpose of this study was to investigate the long-term psychosocial developmental impact of parental death during adolescence in young adults. When compared to their non-bereaved peers, young adults in this study who experienced a
parental death during adolescence have lower psychosocial developmental strength. This psychosocial developmental impact on early parental death did not vary due to demographic variables (e.g., gender, SES, ethnicity, age), type of parental death, gender of deceased parent, age when death occurred, or level of closeness to the deceased. Findings also affirmed the relationship between psychosocial development, social support, religiosity/spirituality, and PTG, emphasizing social support, spirituality, and psychosocial development as being significant predictive of PTG in young adults who experienced a parental death during adolescence. These findings contribute to how counselors can not only support parentally bereaved individuals throughout the lifespan, but also how to sustain personal growth (i.e., PTG) from adverse situations throughout the lifespan and buffer against maladjustment.
APPENDIX A

Informed Consent

William & Mary
Research Participation Consent Form

You have been invited to participate in a research study being conducted by Victor Tuazon, a doctoral candidate (PhD in Counselor Education & Supervision) at William & Mary.

**Purpose:** The purpose of this study is to explore positive outcomes of young adults who experienced a parental death during adolescence, and how this event impacts their psychosocial development when compared to their non-bereaved peers.

**Confidentiality:** The survey is anonymous and your participation is confidential.

**Duration of Participation:** The survey will take approximately 15-20 minutes to complete.

**Voluntary Participation:** Your participation in the research is voluntary. You may stop at any time.

**Incentive for Participation:** Participants will receive an incentive via Qualtrics Panels partners for successful completion of the survey.

**Discomforts and Risks:** There are no known risks associated with this study. If any strong feelings of grief come up during the survey, we encourage you to reach out to a mental health professional. You can visit this site for resources: https://complicatedgrief.columbia.edu

If you have any questions regarding this study, you can contact Victor Tuazon at vetuazon@email.wm.edu. If you have additional questions or concerns regarding your rights as a participant, you may contact Dr. Thomas Ward, chair of the Education Internal Review Committee at William & Mary, at EDIRC-L@wm.edu or by telephone (757-221-2358).

This project was found to comply with appropriate ethical standards and was exempted from the need for formal review by the College of William & Mary Protection of Human Subjects Committee (phone 757-221-3966) on 2017-11-14 and expires on 2018-11-14.

Do you agree to participate in the study?
APPENDIX B

Demographic Questionnaire

What is your age?
• 20 years old
• 21 years old
• 22 years old
• 23 years old
• 24 years old
• 25 years old
• 26 years old
• 27 years old
• 28 years old
• 29 years old

What is your gender?
• Male
• Female
• Transgender
• Other: ________________________________________________

What is your race/ethnicity?
• White
• Hispanic, Latino, or Spanish
• Black or African American
• Asian
• American Indian or Alaska Native
• Middle Eastern or North African
• Native Hawaiian or Other Pacific Islander
• 2 or more races/multiracial
• Race/ethnicity unknown
• Other: ________________________________________________

Considering your own income and the income from any other people who help you, how would you describe your overall personal financial situation?
• Don't meet basic expenses
• Just meet basic expenses
• Meet needs with a little left
• Live comfortably

The person who died was my: (not taken by non-loss group)
• Biological father
• Biological mother
What was your age when your parent died? (not taken by non-loss group)
• 13 years old
• 14 years old
• 15 years old
• 16 years old
• 17 years old
• 18 years old
• 19 years old

What was the cause of your parent's death? (not taken by non-loss group)
• Expected natural cause (cancer, old age, etc.)
• Unexpected natural cause (sudden cardiac arrest, disease, etc.)
• Accident (car accident, drug overdose, etc.)
• Homicide (e.g., murder, manslaughter)
• Suicide
• Undetermined/unknown
• Other: __________________________________________

Looking back, I would guess that my relationship with this person was: (not taken by non-loss group)
• Closer than any relationship I've ever had before or since.
• Closer than most relationships I've had with other people.
• About as close as most of my relationships with others.
• Not as close as most of my relationships
• Not very close at all.
REFERENCES


program on depression 6 years after implementation among at-risk adolescents: A randomized clinical trial. *JAMA Psychiatry, 72*(11), 1110-1118.


disruption in the assumptive world. *Anxiety, Stress, & Coping*, 23, 19-34.
doi:10.1080/10615800802573013

doi:10.1080/10615806.2010.529901


doi:10.1080/07481189308252605


doi:10.1002/jcad.12134


doi:10.1080/07481187.2011.573175


from the national longitudinal survey of adolescent to adult health. _Death Studies, 41_(3), 133-143.


international handbook of suicide bereavement support (pp. 50-59). Boston, MA: Hogrefe.


Qualtrics. (2014). *ESOMAR: 28 questions to help research buyers of online samples.* Published digitally: Author.


doi:10.1097/NMD.0000000000000549


VITAE
Victor Eleazar Tuazon
vetuazon@email.wm.edu

EDUCATION

Doctor of Philosophy (Ph.D.) in Counselor Education & Supervision

WILLIAM & MARY (CACREP accredited)
School of Education: School Psychology & Counselor Education
Williamsburg, VA
Cognate: Addictions & Family Counseling
Advisor and Dissertation Committee Chair: Dr. Charles F. Gressard

2018

Master of Arts (M.A.) in Counseling

REGENT UNIVERSITY (CACREP accredited)
School of Psychology & Counseling
Virginia Beach, VA
Community Counseling & School Counseling dual track

2013

Bachelor of Science (B.S.) in Psychology

JAMES MADISON UNIVERSITY
College of Health and Behavioral Studies
Harrisonburg, VA
Minor: Family Studies

2011

CERTIFICATION & LICENSURE

NCC
National Certified Counselor (#329174)
National Board of Certified Counselors (January 2014 – present)

LPC
Licensed Professional Counselor (Virginia; #0701007502)
Virginia Board of Counseling (February 2018 – present)

CURRENT PROFESSIONAL POSITIONS/HONORS

NEW LEAF CLINIC
Doctoral Student Director

NEW HORIZONS FAMILY COUNSELING CENTER
Doctoral Intern

WILLIAM & MARY: SCHOOL OF EDUCATION
Graduate Assistant & AACTE Holmes Scholar

COUNCIL FOR ACCREDITATION OF COUNSELING & RELATED EDUCATIONAL PROGRAMS (CACREP)
Initial Reader/Consultant

NATIONAL BOARD FOR CERTIFIED COUNSELORS (NBCC)
2017-2018 NBCC Doctoral Minority Fellow

PROFESSIONAL PUBLICATIONS


