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The Roles of Gender and Ethnicity in College Student Bereavement

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THE ROLES OF GENDER AND ETHNICITY IN COLLEGE STUDENT BEREAVEMENT

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at Virginia Commonwealth University

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Abstract

THE ROLES OF GENDER AND ETHNICITY IN COLLEGE STUDENT BEREAVEMENT

By: Rachel Weiskittle, B.A.

A thesis submitted in partial fulfillment of the requirements for the Masters of Science Degree at Virginia Commonwealth University.

Virginia Commonwealth University, 2015.

Major Director: Sandra E. Gramling, Ph.D.
Associate Professor
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The developmental stage of emerging adulthood often poses substantial challenges that negatively impact bereavement experiences (Schultz, 2007; Tanner & Arnett, 2009). Some emerging adults may be even more at risk for adverse grief outcomes due to individual differences such as gender and ethnicity, but very few studies have investigated these variables within the population. We addressed this gap in the literature by investigating the influence of gender and ethnicity on college students’ bereavement experiences using the Hogan Grief Reaction Checklist (HGRC; Hogan, Greenfield, & Schmidt, 2001) Results indicates a significant relationship between ethnicity and levels of personal growth, use of religious coping, and type of loss. The present study found no clinically significant differences in male and female college student bereavement characteristics.
The Roles of Gender and Ethnicity in College Student Bereavement

Bereavement is a wide reaching and sometimes debilitating experience. Bereavement and related grief symptoms can result in adverse physical symptoms alongside severe emotional distress, and sometimes increases risk of suicide and mortality (Stroebe, Schut, & Stroebe, 2007). Certain individual differences of those bereaved can greatly influence their grief outcomes. In particular, ethnicity, gender, and age have been shown to impact the manner in which individuals experience grief. Assessing these variables can result in identifying especially high-risk groups of thebereaved and lead to an increased understanding of the experience of those who have been left behind.

Bereaved emerging adults are especially vulnerable to negative health and grief outcomes (Neimeyer, Laurie, Mehta, Hardison, & Currier, 2008), with some researchers even identifying the high rates of bereavement-related issues within emerging adults as a “silent epidemic” (Neimeyer et al., 2008). Recent studies have revealed the substantial influence of gender and ethnicity on adult grief (e.g., Chiu et al., 2011; Sharpe, Osteen, Frey, & Michalopoulos, 2014), but the field of bereavement research is currently lacking empirical studies examining how these variables influence emerging adult grief. In the following literature review, recent research in the area of bereavement will be reviewed, followed by a review of literature detailing the influence of gender and ethnicity on adults’ grief outcomes. An increasingly studied component of grief is the growth related to the loss experience; thus, the nascent research surrounding the construct of Personal Growth will be detailed. The review will then describe the developmental stage of emerging adulthood, leading to a summary of the research regarding bereavement within this group. The role of ethnicity and
gender in grief within the emerging adulthood population is also reviewed, followed by a
review of studies investigating personal growth within bereaved emerging adults.

The current study aims to examine the influence of ethnicity and gender on emerging adults’ bereavement outcomes. The outcomes in consideration include grief intensity and personal growth. Grief intensity, which includes symptoms of despair, blame, and anger, disorganization, detachment, and panic behavior, is a measure of the negative outcomes associated with bereavement, whereas personal growth reflects positive outcomes. Additionally, the study will contribute to the limited literature on bereaved emerging adults by providing a characterization of this population based on loss characteristics; namely, type of loss (violent vs. non-violent) and the extent to which this sample used religious coping skills to manage their loss.

**Review of the Literature**

**Bereavement**

Coping with the death of a loved one is a challenging experience that can produce a myriad of functional complications and distress. Along with emotional pain and longing for the deceased, bereavement can spur major internal disruption such as a reevaluation of self-identity (Nerken, 1993), a shattering of world assumptions (Janoff-Bulman, 1992), purposeful withdrawal from social supports (Utz, Carr, Nesse, & Wortman, 2002), and feelings of vulnerability and helplessness (Hogan, 1987). Those bereaved may also experience physical manifestations of their distress. For example, individuals who have recently experienced a loss report increased blood pressure (Prigerson, et al., 2001), greater propensity for developing new or worsened illnesses (Thompson et. al, 1984), greater use of medical services (Parks, 1996) and overall poorer physical health outcomes (Murphy et al.,
Bereavement has also been associated with psychological symptoms and psychiatric diagnoses such as depression and post-traumatic stress disorder (Raphael, Minkov, & Dobson, 2001; Middleton, Burnett, Raphael, & Martinek, 1996). Most concerningly, the bereaved population has a higher risk of suicide (Adjacic-Gross et al., 2008) and an increased risk of mortality (Stroebe, Schut, & Stroebe, 2007).

The terms grief, bereavement, and mourning have been used interchangeably in early psychological literature. As bereavement research has expanded, consensus definitions of these terms have since been specified. The term “bereavement” is used to refer to the loss of a loved one through death. Grief is understood as the subjective, emotional reactions to that loss and possible distress that results. Mourning, although often used colloquially as a synonym for grief, is identified as the actions and manner in which one expresses their grief and incorporates the loss into their life, often taking the form of cultural rituals (Stroebe, Stroebe, & Hansson, 1988; Genevro, Marshall, & Miller, 2004; DeSpelder & Strickland, 2005; Granek, 2010).

There are many factors that influence the intensity, longevity, and expressions of grief. Some of these factors are interpersonal and pertain to the bereaved individual’s relationship with the deceased (Neimeyer, Baldwin, & Gilles, 2006). One factor that may affect grief is the loved one’s cause of death. Whether a loved one died due to an accident, illness, homicide, or suicide can influence the severity of the bereaved individual’s grief outcomes (Currier, Holland, & Neimeyer, 2006; Kaltman & Bonanno, 2003; Holland & Neimeyer, 2011). Individual differences such as gender, ethnicity, and age have been assumed to be particularly salient to the way individuals experience and express their grief,
but the literature is mixed regarding these variables’ influence on grief outcomes (Murphy, Johnson, & Weber, 2002; Jacobs and Ostfeld 1977).

**Gender and Bereavement**

Evidence is accumulating that males and females tend to have different grief experiences (Martin & Doka, 2000; Stillion & Noviello, 2001). The bereavement literature has largely focused on older adult spouses when evaluating gender. Research findings suggest that spousal bereavement put males at higher risk for depression and morbidity. However, findings of non-spousal bereavement remain less clear, and research continues to investigate the different ways males and females experience and cope with their loss.

**Gender differences in spousal bereavement.** Among spousally-bereaved individuals, men are at higher relative risk for developing psychological and physical illnesses than women (Stroebe, 1994). Differences in depression between married males and spousally-bereaved males have been found to be higher than the differences between married women and spousally-bereaved women, even after a decade post-loss (Lee, Willetts, & Seccombe, 1998; Umberson, Wortman, & Kessler, 1992). Glock, Weiss, and Parkes (1974) reported that widowers took longer to recover than widows in that they remained significantly more depressed than married men up to one year after their spouse’s death, whereas widows were no more depressed than married women at one year. The authors then completed a follow up study which assessed the same widows and widowers now at two and four years post-loss. Findings revealed that the quality of the widowers’ life had suffered much more than the quality of life for the widows (Parks, 1983). Moreover, widowers who had not remarried a year after their wife’s death had significantly higher levels of depression than widows who had not remarried (Parks, 1983). A more recent bereavement study by
Siegel and Kuykendall (1990) found similar gender differences. Widowed men had elevated depression level in comparison to married men, while no difference in depression levels existed between widowed and married females 1 year post bereavement (Siegel & Kuykendall, 1990).

Widowers also tend to report poorer physical health than widows (Stroebe, 1994). Widowers fare worse than widows in risk of mortality (Stroebe, 1994; Goldman et al., 1995). Furthermore, widowers are at five times greater risk of suicide than married men, whereas there are negligible differences in rates of suicide between widows and married women (Li, 1995). Thus, there is much evidence to support that widowers experience more severe psychological and physical symptoms post-loss as compared to widows.

**Gender differences in non-spousal bereavement.** When examining non-spousal bereavement, gender differences related to the management of grief symptoms are less clear than spousal findings, and are not always consistent across studies (Murphy, Johnson, & Weber, 2002). In contrast to spousal-bereavement findings, some studies indicate that females report more post-loss symptomology than males, while others find no significant differences between genders. For example, in a 2011 study of 432 bereaved caregivers of cancer patients, females reported significantly higher rates of depression and anxiety (Chiu et al., 2011). At the same time, a few non-spousal studies indicate no gender differences in emotional distress (Weisman & Klerman, 1977; Oltjenbruns, 1998). However, none of these studies are supported by a control group. Additional research is needed to advance our understanding of how gender influences grief outcomes of non-spousal bereavement.

Researchers have traditionally described general gender differences in grief coping as “masculine” and “feminine” (Cook, 1988; Corr, Nabe, & Corr, 2000). “Feminine” grief
coping has been characterized by the displays of intense affect, support seeking, and sharing of emotions with others (Staudacher, 1991), while “masculine” grief coping has been characterized by problem-solving and predominantly cognitive aspects of working through loss. More recently, researchers are beginning to question the “masculine/feminine” grief coping dichotomy. For instance, in a study of bereaved parents, given the option to choose from various coping strategies and categorizing them by frequency of use, neither fathers nor mothers reported the use of any particular set of strategies as predicted by gender (Murphy, Johnson, and Weber, 2002). Martin and Doka (2000) have reviewed gender differences in grief and bereavement, and reject the idea of a dichotomous gender theory of coping. Instead, they argue that grieving styles exist across a continuum stretching from “instrumental” (externally problem orientated) to “intuitive” (emotive, help-seeking) (Martin & Doka, 2000). This model allows that most men react toward the instrumental end of the continuum and most women toward the intuitive, but also emphasizes that some males may use an intuitive style of grieving, and some females may grieve in a more instrumental way. They also recognize that many griever use a “blended” style of grieving (Martin & Doka, 2000). Researchers have evaluated the feasibility of this theory, and findings indicate that males and females indeed overlap more often than previous masculine/feminine theories allowed (Murphy, Johnson & Weber, 2002; Versaille & McDowell, 2005; Stillion & Noviello, 2001).

Ethnicity and Bereavement

In the United States, grief theory has relied largely on the experience of the dominant white culture to explain how Americans grieve in general (Laurie & Neimeyer, 2008). Thus cultural subgroups, such as African Americans, have been overlooked and largely ignored within the bereavement literature. This is problematic as there are a host of factors that may
contribute to a distinct grieving process for African Americans. Namely, African Americans experience different loss characteristics than other groups, such as type of loss, which may result in differences in grief reactions.

**Ethnic differences in type of loss.** Recent reports indicate that ethnic minorities, specifically African-Americans, have increased risk for experiencing a loss by homicide (Zinzow et al., 2009). According to the U.S. Census Bureau (2007), the rate of homicide for African Americans is over 10 times greater than Caucasians. Moreover, African Americans are at greater risk for homicide not only compared to Caucasians, but all other racial and ethnic groups (Fox & Zawitz, 2007). These high rates of homicide survivorship are concerning given that those grieving a traumatic death are at increased risk for experiencing complicated grief, major depressive disorder, drug abuse, and posttraumatic stress disorder (PTSD; Doka, 2002; Zinzow et al., 2009; Laurie & Neimeyer, 2008). In addition, coping with the loss of a loved one to homicide is made more difficult for African Americans because of their higher frequency of violent traumatic experiences as compared to other racial groups (Sharpe et al., 2014).

Another cultural characteristic that suggests African Americans may experience different types of loss is their average age of death. African Americans have a substantially shorter life span than Caucasians. In 2008, Caucasian Americans with 16 years or more of schooling had life expectancies far greater than African Americans with fewer than 12 years of education—14.2 years more for Caucasian men than African American men, and 10.3 years more for Caucasian women than African American women (Olshanky et al., 2012). These gaps have widened over time and researchers go so far as to say that they have led to at least two “Americas,” in terms of life expectancy, demarcated by level of education and
rational-group membership (Olshanky et al., 2012). This statistic indicates that African Americans are more likely to experience a younger death of a loved one (Rosenblatt & Wallace, 2005), which may increase their risk for developing negative health outcomes and increased psychological distress.

**Ethnic differences in grief outcomes.** Despite these important differences, only recently have researchers begun to investigate how ethnicity may influence the way one may experience bereavement. Race/ethnicity has traditionally been a variable in the bereavement literature whose variance researchers hope to minimize. Thus, ethnicity is often only used as a control to account for error variance in the sample, or is not reported on at all. A review of the literature reveals sixteen studies that have used the Hogan Grief Reaction Checklist (HGRC; Hogan, Greenfield, & Schmidt, 2001) to assess grief outcomes. Since the HGRC’s development, it has been identified as one of the most widely employed instruments for measuring normal grief reactions and personal growth after a loss (Feigelman, Jordan, & Gorman, 2009). Fifteen out of the sixteen of these studies either did not report whether they assessed ethnicity’s impact on grief outcomes or did not report on ethnicity at all. The single study that did report on ethnicity revealed significant differences on HGRC scores (DiMarco, Menke & McNamara, 2001). Because the one study that reported on ethnic differences found significant results, this finding points to the importance of further exploration of ethnic differences in grief outcomes.

Though there are few studies examining gender or ethnicity differences in grief, even fewer studies address the relationship between gender, ethnicity and grief. Williams, Takeuchi, and Adair (1992) conducted a cross-sectional survey of psychiatric disorders among both Caucasians and African Americans by marital status \( n = 18,571 \). They found
that both widowed African Americans and Caucasians had higher rates of psychiatric disorders than those who were married. Widowed African American women were diagnosed with psychiatric diagnoses at significantly higher rates than nonbereaved African American women, but this difference was not true for Caucasian women. Interestingly, while bereaved Caucasian males had higher rates of psychiatric diagnoses than nonbereaved Caucasian males, there was no difference between bereaved and nonbereaved African American males. These findings are especially intriguing when compared to the previously mentioned study of Glock, Weiss, and Parkes (1974), who found in their predominantly Caucasian sample that widowers reported higher depressive symptoms than widows.

**Personal Growth Associated With Loss**

Traditionally, research has focused on the negative outcomes following loss. Bereavement was purported to be a limited time period of struggle that resulted in the gradual disconnection from the loved one so the bereaved individual could overcome their grief symptoms. This process was called “grief work” and was espoused as essential for successfully navigating a loss. These theories can be traced back to Freud’s publication *Mourning and Melancholia* in 1917 and were pervasive until the 1950s (Archer, 2008). However, a large body of empirical evidence demonstrates that people who do not “work through” their grief frequently recover as well as, if not better than, those who do (Bonanno, 2004). New theories have emerged that explain various trajectories of grief rather than a standardized, ubiquitous process that Freud and his colleagues wrote of (Bonanno, 2004; Ott, Lueger, Kelber, & Prigerson, 2007, Lord & Gramling, 2014). These studies also highlight the many positive changes that may occur after a loss (Bonanno & Kaltman, 2001; Calhoun and Tedeschi, 1989; Davis, Nolen-Hoeksema, & Larson, 1998; Ho, Chu, & Yiu, 2008). These
positive changes have since been grouped together and labeled variously as personal growth, posttraumatic growth, stress-related growth, meaning making, or benefit finding (Helgeson, Reynolds, & Tomich, 2006; Park & Folkman, 1997; Tedeschi, & Calhoun, 2004). The positive outcomes of bereavement are now considered to be of such importance that many psychologists today view bereavement as a dynamic process involving both negative and positive experiences (Hogan, Greenfield, & Schmidt, 2001; Nerken, 1993; Linley & Joseph, 2004; Shapiro, 2007).

There are many examples of positive outcomes from bereavement. For example, bereavement can lead to a more fulfilling understanding of the external world. Frankl (1963) emphasized that suffering can facilitate the discovery of purpose in one’s life. Traumatic life events may lead to successful coping, learning lessons, and a fuller appreciation for life (Janoff-Bulman, 1992). Newly recognizing that life is finite can lead individuals to believe their actions matter more (Nerken, 1993). Bereavement can also result in deeper and more meaningful social relationships. Bereaved individuals often report an increase in compassion for themselves and others, as well as a greater sense of self-worth (Hogan & DeSantis, 1996). Experiencing a great loss can also result in resiliency, which is described as the ability to “maintain relatively stable, healthy levels of psychological and physical functioning” when confronted with loss and trauma (Bonnano, 2004). In a recent meta-analyses of the published research on personal growth in adults, Helgeson, Reynolds, and Tomich (2006) examined correlates of personal growth. They found that objective severity of the stressor, subjective perceptions of stress associated with the event, and greater intrusive and avoidant thoughts about the stressor were positively related to personal growth. In addition, personal growth was positively related to higher levels of positive affect, optimism, religiosity, and the coping
strategies of positive reappraisal, acceptance, and denial. Personal growth has also been linked to improved physical health outcomes, such as decreased risk for heart attacks (Affleck, Tennen, Croog, & Levine, 1987) and lower AIDS-related mortality (Bower, Kemeny, Taylor, & Fahey, 1998).

One of the most methodologically sound ways this general construct of personal growth has been operationalized is through the personal growth subscale on the Hogan Grief Reaction Checklist (HGRC; Hogan, Greenfield, & Schmidt, 2001). The Personal Growth scale is made up of 12 items and measures spiritual and existential awareness. This includes “a sense of becoming more forgiving, caring, compassionate, hopeful, and tolerant of self and others” (Hogan, Greenfield, & Schmidt, 2001). The HGRC personal growth subscale is negatively correlated with measures of grief including the Texas Revised Inventory of Grief (TRIG; Faschingbauer, 1977), the Grief Experience Inventory (GEI; Sanders, Mauger, & Strong, 1985) and the Impact of Event Scale (IES; Horowitz et al., 1979).

**Personal growth and gender.** There are a few studies that investigate the relationship between gender and personal growth following bereavement. Most studies report differences between widows and widowers. One of the largest and most methodologically rigorous studies investigating gender differences in personal growth among bereaved spouses included a nationally representative sample comprised of approximately 800 widows and widowers who lost their spouse anywhere between 3 months and 60 years previously (Wortman, Silver, & Kessler, 1993). Women were more likely to endorse that they had become a stronger person as a result of having to deal with their spouse’s death (Wortman, Silver, & Kessler, 1993). Wortman (2004) suggested that widows were more likely than widowers to experience growth. Similar results emerged from a prospective study.
in which bereaved men and women were interviewed prior to the loss of their spouse and at 6 and 18 months following the loss (Bonanno, Wortman, et al., 2002; Car, 2002). Still-married controls were also interviewed at each time point. Results revealed that widowed men’s self-esteem was lower than that of married men, whereas widowed women’s self-esteem was higher than that of married women. In summary, these studies demonstrate that widows report higher levels of personal growth after a loss than widowers, which mirrors previously mentioned studies (e.g., Stroebe, 1994), indicating that widowhood is a far more difficult transition for men that it is for women.

Other studies that assess personal growth and gender focus on bereaved parents. A study assessing married couples that had experienced the death of a child found that there were no statistically significant differences between personal growth scores of mothers and fathers (Polatinsky & Esprey, 2000). These findings may be in part because of the low levels of personal growth found from the death of a child. For example, Murphy, Johnson, and Lohan (2003) interviewed parents who lost a child at several different time points following the loss (4, 12, 24, and 60 months). Only 3 of the 138 parents reported findings any positive benefits following their child’s death.

**Personal growth and ethnicity.** Some studies have examined differences in personal growth between ethnic groups. Across these studies, non-whites were reported to be more likely than whites to experience growth as a result of stressful or traumatic experiences, the reasons for which are not entirely clear (Helgeson, Reynolds, & Tomich, 2006; Caserta, Lund, Utz, et al., 2009). Stanton, Bower and Low (2006) suspect that racial/ethnic differences in growth could be associated with cultural differences pertaining to religiosity.
and spirituality, with a greater tendency among some non-white populations to use religion as mechanisms to search for meaning.

**Ethnic differences in personal growth due to religious coping.** Many studies document that religious and spiritual faith provides strong support for grieving African Americans (Boyd-Franklin & Lockwood, 1999; Mattis, 2002). For example, in a qualitative study of 30 middle-aged African-American daughters coping with the death of their mothers, Smith (2002) found that religion not only provided a means for understanding and accepting loss but also facilitated an enduring connection to the deceased. Other studies indicate that using religion and spirituality to cope with loss is more prevalent within the African American community than other cultural groups, particularly when compared to Caucasians (Laurie & Neimeyer, 2008; Taylor, Chatters, & Levin, 2004). Recent studies demonstrate that African Americans use both positive and negative religious coping to deal with their loss, sometimes at rates comparatively higher than Caucasians (Neimeyer & Burke, 2011). Indeed, research indicates that religiosity is positively related to personal growth (Park et al., 1996; Tedeschi & Calhoun, 1996). As Milam and colleagues (2004) argue, using a religious perspective to assess a loss can have a dramatic effect on personal growth by providing a framework through which traumas can be appraised. They purport that “using trauma to come closer to God can increase an individual’s level of spirituality, whereas the opposite may occur if one feels betrayed by God through the trauma (Milam, 2004).” African Americans’ relatively higher rates of religious coping have not been shown to be connected with their negative grief outcomes such as grief intensity, PTSD symptoms, or depressive symptoms (Neimeyer & Burke, 2011). However, researchers maintain that higher religious
coping may explain the higher rates of personal growth from a loss reported by African Americans (Helgeson, Reynolds, & Tomich, 2006; Caserta, Lund, Utz, et al., 2009).

Emerging Adulthood

Age of the bereaved individual is a significant predictor of loss characteristics and grief experiences. Age influences developmental processes in coping and emotion, and can also be predictive of the type of loss individuals experience. For example, in an early review of the literature, Jacobs and Ostfeld (1977) found that grief of older adults is more commonly associated with psychosomatic symptoms and delusions than younger adults. On the other hand, younger adults report higher levels of numbness, denial, and guilt (Jacobs & Ostfeld, 1977). The bereavement literature has focused primarily on adults. Older adult widows and widowers are the most commonly studied group in the bereavement literature (Brown, Nesse, House, & Utz, 2004). Research has also studied the effects of childhood and adolescent bereavement (Ewalt & Perkins, 1979; Balk, 1991). An age range that has been overlooked in the bereavement literature is the delineated developmental stage of emerging adulthood (Mathews & Servaty-Seib, 2007).

Emerging adulthood is defined as a stage of development occurring from the late teens through the twenties, with most research primarily focusing on ages 18-25 (Arnett, 2000). Emerging adulthood is a stage of transition distinguished by the ambivalence between the dependency of adolescence and the independent responsibilities that often catalyze in the beginnings of adulthood (Arnett, 2000). Arnett (2000) argues that this period of development is theoretically and empirically distinct from both adolescence and young adulthood. Jensen (2011) characterizes emerging adulthood as a period of feeling in-between childhood and adulthood, experiencing constant change, exploring self-identity, and holding high hopes for
the future. He goes on to argue that it is the most “self-focused” stage of life in that it is the developmental stage most lacking in obligations to others. College students represent a substantial portion of emerging adults in the United States. The majority (i.e., over 60%) of high school students enter higher education after high school graduation (Arnett, 2004).

Emerging adults are vulnerable to poor health outcomes. For example, college students are often separated from their primary support systems and are not receiving support from their peers (Janowiak, Mei-Tai, & Drapkin, 1995). They are also adjusting to a different lifestyle while transitioning into a different societal role (Pennebaker, Colder, & Sharp, 1990). This new lifestyle often poses new sets of challenges, such as the struggle of meeting academic demands and the increased temptation of alcohol and drugs (Servaty-Seib & Taub, 2010). Illicit drug use peaks during emerging adulthood (Stone, Becker, Huber, & Catalano, 2012). Data from a recent study, titled Monitoring the Future, indicates that problem levels of alcohol use (including daily use, binge drinking, and daily drunkenness) are highest during emerging adulthood, especially on college campuses (Johnson, O’Malley, Bachman, & Schulenberg, 2008). Among emerging adults, substance use has been linked to deaths, injuries, and among college students, academic problems, fighting, and sexual behavior problems (Stone, Becker, Huber, & Catalano, 2012).

Emerging adulthood and bereavement. A substantial number of emerging adults have experienced a recent loss. Smyth, Hockemeyer, Heron, Wonderlich, and Pennebaker (2008) found that 64.1% of their college student sample reported the death of a loved one during their lifetime, 35.1% of which occurred from ages 17 and up. They also reported that experiencing the death of a loved one was the most commonly endorsed adverse life events for undergraduates, cited more often than parental divorce, traumatic sexual and violent acts,
and academic problems. Currier, Holland, Coleman, and Neimeyer (2006) found approximately 40% of college students reported having lost a loved one within the past 2 years. In a recent study of 1,575 graduate students, approximately 25% had experienced a loss within the last 2 years (Varga, 2013). Using stratified random sampling, Balk, Walker, and Baker (2010) found that 30% of their 118 randomly selected college students endorsed having experienced a loss within the last 12 months, and 39% endorsed having lost someone within the past 24 months. In one study of late-adolescent females, the majority of participants reported that the death of a loved one was the hardest thing they have ever had to face, with 23% having experienced a death of a loved one within the past year, and 50% having experienced a death of a loved one over a year ago (Ickovics, 2006). These high rates of bereavement have caused researchers to refer to emerging adult’s grief as a “silent epidemic” on college campuses (Neimeyer, Laurie, Mehta, Hardison, and Currier, 2008).

Bereaved emerging adults are at high risk of developing poor quality of life outcomes (Neimeyer, Laurie, Mehta, Hardison, & Currier, 2008; Fisher, Murray, & Frazer, 1985). For example, Servaty-Seib and Hamilton (2006) found that bereaved college students displayed decreased academic performance compared with their non-bereaved peers. Bereaved students have reported higher rates of insomnia compared with non-bereaved controls (Hardison, Neimeyer, & Lichstein 2005). Cognitive studies have demonstrated that emerging adults are more sensitive to negative emotional stimuli than older adults (Tanner & Arnett, 2009) and that younger individuals such as emerging adults tend to experience higher levels of stress when adapting from traumatic events (Helgeson, Reynolds, & Tomich, 2006).

Emerging adults often feel isolated and disconnected from their peers when they are grieving (Schultz, 2007). Non-bereaved college students have expressed particular difficulty
with being emotionally supportive, often reporting feeling sad, helpless, and uncomfortable in the presence of a grieving friend (Vickio, Cavanaugh, & Attig, 1990; Balk, 1997, Balk. 2001). This lack of support is detrimental as emerging adults are transitioning from a developmental phase in which parental support is primary to one in which peer support plays a much greater role of their everyday life (Arnett, 2000). Furthermore, the U.S. death rate for 20-24 year olds is 98.3 out of 100,000, or close to an average of 10 student deaths annually on a campus of 10,000 (Xu, Kochanek, Murphy, & Tejada-Vera, 2010). Thus, many bereaved emerging adults experience the loss of a peer (Gamino, Sewell, & Easterling, 2010). Losing a friend at this age is a particular risk factor because many studies report that a younger aged decedent leads to poorer health and grief outcomes (Gamino, Sewell, & Easterling, 2010; Hardison et al., 2005).

The death of a peer during emerging adulthood is often due to violence or an accident. For example, substance abuse is associated with mortality among emerging adults. A recent study examining death rates reported that three quarters of all deaths among 20 to 24 year olds are the result of injuries, with unintentional drug-related poisoning the third leading cause of injury-related death, behind motor-vehicle/traffic-related deaths and firearm-related deaths, all three of which are often substance involved (Fingerhut & Anderson, 2008). Suicide is another leading cause of death for emerging adults (Seguin et al., 2011). The suicide death rates for U.S. emerging adults are 12.58 per 100,000, respectively (CDC, 2010) which exceeds that of any other age group and suggests a suicide vulnerability. For example, Prigerson and colleagues (1999) conducted a study on college students who lost a friend to suicide and found clinical levels of “traumatic grief” to be associated with five times greater likelihood of suicidal ideation after controlling for depression.
Emerging adulthood and gender. Though bereavement in emerging adulthood is receiving increasing attention among researchers, very few studies are addressing gender and ethnic differences in grief within this population. There are extremely few bereavement studies of emerging adulthood that report on gender differences. Of those that do, females report higher distress (Hardison et al., 2005; Walker, Hathcoat, & Noppe, 2011). For example, Hardison and colleagues (2005) found that female college students reported higher levels of grief intensity than their male counterparts, as measured by The Inventory of Complicated Grief (ICG; Prigerson & Jacobs, 2001). This finding held up even after controlling for closeness to the deceased, younger age of decedent, recency of the loss, and relationship to the deceased (Hardison et al., 2005).

Emerging adulthood and ethnicity. Similarly, only recently have studies begun to assess the role ethnicity may play in emerging adults’ bereavement experience. Results so far indicate that the emerging adults report the same bereavement-related differential characteristics between ethnicities that adults do. Namely, African Americans in emerging adulthood report higher rates of bereavement by homicide than any other racial or ethnic group (Zinzow et al., 2009). Homicide is the leading cause of death for African Americans between the ages of 15 and 34 years (Centers for Disease Control and Prevention, 2007). According to a recent national study of emerging adults, the proportion of African Americans bereaved by homicide were nearly three times the proportion of Caucasians bereaved by homicide (Zinzow et al., 2009). This study also revealed that emerging adults who experienced a homicide were almost twice as likely to experience past year PTSD, depression, and drug abuse/dependence (Zinzow et al., 2009). Previous research indicates that the magnitude of increased distress experienced by emerging adults are similar to that of
adults bereaved due to a violent loss compared with a nonviolent bereavement (Holland & Neimeyer, 2011).

One of the most comprehensive studies to date that explores the relationship between emerging adults’ ethnicity and grief is Laurie and Neimeyer’s 2008 study of 1,581 bereaved college students (940 Caucasians and 641 African Americans). Each participant completed the Inventory of Complicated Grief-Revised, the Continuing Bonds Scale, and questions regarding the circumstances surrounding his or her loss. Results revealed that African Americans experienced more frequent bereavement by homicide, maintenance of a stronger continuing bond with the deceased, greater grief for the loss of extended kin beyond the immediate family, and a sense of support in their grief, despite their tendency to talk less with others about the loss or seek professional support for it (Laurie & Neimeyer, 2008). Overall, African Americans reported higher levels of complicated grief symptoms than Caucasians, especially when they spent less time speaking to others about their loss experience (Laurie & Neimeyer, 2008).

Other existing studies evaluating ethnicity and emerging adult bereavement also reveal that ethnic minorities report higher distress related to their grief. In 2006, Ickovics found that race/ethnicity was a significant predictor of emotional distress for young adult females after experiencing a significant death or trauma within the past two years. White/Caucasian females reported lower long-term distress than ethnic minorities. In a study comparing Mexican American and Anglo Saxon college students, Mexican Americans scored higher on scales of Loss of Control and Somatization when they filled out the Grief Experience Inventory (Oltjenbruns, 1998).
Studies that investigate ethnicity’s influence on emerging adult grief find that racial and ethnic minorities, particularly African Americans, report higher levels of distress and rates of violent loss. However, with the exception of Laurie & Neimeyer (2008), most bereavement studies reporting on emerging adults do not include reports of whether differences existed between racial/ethnic groups and this area requires further research for adequate examination of these relationships.

**Emerging adulthood and personal growth.** Although research on personal growth has burgeoned in the last two decades, there are only a few studies that have examined personal growth in bereaved emerging adults. Helgeson, Reynolds, and Tomish (2006) found in their meta-analyses of the published research on personal growth that younger participants reported more growth than older participants following bereavement. They have theorized that younger individuals find traumatic events more stressful and put forth greater effort to adapt, which in turn can allow for a greater likelihood for personal growth. Others have disagreed, maintaining that younger age could hinder bereaved individuals to experience growth because they have a weaker propensity to learn from prior life experiences (Aldwin & Levenson, 2004). The studies within this age group have found support for some of the variables that are associated with personal growth in adults. The studies reveal that severity of the stressor (Barakat, Alderfer, & Kazak, 2006; Ickovics et al., 2006, Tedeschi & Calhoun, 1996), lower levels of anxiety (Milam, Ritt-Olsen, Tan, Unger, & Nezami, 2005), lower emotional distress (Ickovics et al., 2006) and lower substance use (Milam, Ritt-Olson, & Unger, 2004; Milam et al., 2005) have been positively associated with personal growth. When controlling for other factors, Currier, Holland, and Neimeyer (2012) found that
younger individuals and those with fewer formal educational achievements in their families of origin reported higher levels of growth.

Oltjenbruns (1991) found that the majority of late adolescents who had experienced the death of a family member or friend reported a deeper appreciation for life, greater caring for loved ones, strengthened emotional bonds with others, and emotional strength as a result of their grief experience. Range and Calhoun (1990) found that college students grieving accident and suicide death losses reported changes in peer relationships. Accident loss survivors described these changes as positive more than suicide loss survivors (76% vs. 27%). Significant predictors of growth within the emerging adult population include the bereaved individual seeking support from parents, guardians, or other adults as well as active coping, internalizing problems, and externalizing problems (Wolchik et al., 2008). Studies also indicate that emerging adults report higher personal growth from experiencing a life threatening or life changing event (e.g., chronic illness, death of a loved one) than a negative interpersonal event (e.g., significant other and familiar disputes) (Ickovics, 2006). These studies support that emerging adults experience personal growth when faced with loss.

Studies evaluating the influence of gender on personal growth within the emerging adult population are sparse and report inconsistent findings. While developing a personal growth measurement tool through a college student population, Tedeschi and Calhoun (1996) found that females reported finding more benefits from their trauma than males, including scoring higher on the growth factors of relating to others, personal strength, spiritual change, and new possibilities. Park and colleagues (1996) also found that females reported higher levels of growth from a recent loss. Oltjenbruns (1991) found no significant gender differences in personal growth within a group of randomly sampled bereaved college
students. However, this study did not assess growth on a validated scale, and only compared chi squared samples of individually reported growth items. Milam (2004) also found no differences in reported levels of posttraumatic growth between females and males in their study of bereaved adolescents.

No studies to date have evaluated the relationship between ethnicity and personal growth within the emerging adult population. It is possible that the connection between African American adults’ higher rates of religious coping when confronted with a loss and their higher levels of personal growth may also appear within the emerging adult population. Indeed, studies have indicated that emerging adult African Americans have similarly higher rates of religious coping when compared to their Caucasian counterparts (Neimeyer & Burke, 2011). This is an area of research that remains to be investigated and could yield influential results on our understanding of how culture and religious coping could influence rates of personal growth following the loss of a loved one.

**Statement of the Problem and Hypotheses**

Bereavement research has burgeoned in the past two decades, but much remains unknown about grief among emerging adults. The developmental stage of emerging adulthood, typically defined as the ages between 18 and 25 (Arnett, 2000), poses particular challenges that may negatively influence bereavement outcomes. For example, emerging adults are often separated from their primary support systems (Schultz, 2007), report high frequencies of illicit drug use (Stone, Becker, Huber, & Catalano, 2012), and endorse heightened sensitivity to negative emotional stimuli (Tanner & Arnett, 2009). Emerging adults are considered a high-risk population for poor mental health and bereavement outcomes (Neimeyer, Laurie, Mehta, Hardison, & Currier, 2008), which is concerning when
considering that approximately 40% of emerging adults have lost a loved one within the past two years (Currier, Holland, Coleman, and Neimeyer, 2006).

Individual differences put some bereaved emerging adults at even higher risk for poor bereavement outcomes. Studies reveal that gender and ethnicity have strong influences on loss characteristics and experiences. Existing literature regarding gender and bereavement indicate that spousally-bereaved males suffer more from their loss than their spousally-bereaved female counterparts (Stroebe, 1994), with elevated levels of depression (Siegel & Kuykendall, 1990) and poorer physical health (Stroebe, 1994). However, the literature regarding gender and bereavement with non-spousal loss is less clear, with some studies placing females at higher risk for developing depression post-loss (e.g., Chiu et al., 2011), and others reporting no differences between genders (e.g., Oltjenbruns, 1998). Very few studies have investigated whether gender differences exist in the grief outcomes of emerging adults, despite the many studies revealing gender differences in adult grief.

Another individual difference variable that may affect the grief experience of emerging adults is ethnicity. Existing studies suggest that African American emerging adults are exposed to higher rates of homicide and other acts of violence compared to their Caucasian counterparts (Fox & Zawitz 2007; Zinzow et al., 2009). These experiences result in African American emerging adults’ increased risk for developing traumatic grief, symptoms of PTSD related to the death, and substance abuse (Zinzow et al., 2009). However, few studies on emerging adults investigate ethnicity’s role on grief outcomes. For most studies, ethnicity is often used as a control variable to account for error variance in the sample, or is not reported on at all.
Gender and ethnicity may also influence the levels of personal growth emerging adults experience from their loss. Bereavement has traditionally only been studied with negative outcomes such as depressive symptoms, but recent studies have identified bereavement as a dynamic process involving both negative and positive components (Bonanno & Kaltman, 2001; Calhoun and Tedeschi, 1989; Davis, Nolen-Hoeksema, & Larson, 1998; Ho, Chu, & Yiu, 2008). The positive outcomes of bereavement are often referred to as “personal growth” (Helgeson, Reynolds, and Tomich 2006), and are now considered to be of such importance that recently developed grief-measurements include scales of both grief intensity and personal growth (HGRC; Hogan, Greenfield, & Schmidt, 2001). Some research has begun looking at how individual differences variables such as gender and ethnicity influence both of these constructs, but very few have focused on the emerging adulthood population.

The current study aims to evaluate the effect individual differences, specifically, gender and ethnicity have on emerging adult participants’ bereavement outcomes. Namely, the study aims to investigate the role these differences play in emerging adults’ grief intensity and personal growth following a loss within the past two years. In order to achieve these objectives, the present study aims to perform secondary data analyses on an existing dataset of bereaved emerging adults (Lord, 2010). Data for demographic factors and loss characteristics were collected through open-response and forced choice, self-report items. Data for the bereavement outcomes (i.e. grief intensity and personal growth) were collected on the Hogan Grief Reaction Checklist (HGRC; Hogan, Greenfield, & Schmidt, 2001). The following specific hypotheses will be tested:

**Hypothesis 1: Gender and Grief Intensity**
**Prediction 1.** A main effect for gender (male vs. female) on the outcome of grief intensity is predicted. It is expected that females will report higher levels of grief intensity on the Hogan Grief Reaction Checklist (HGRC).

**Rationale.** Most studies indicate that females are more expressive with their grief and convey their feelings more openly than males (Murphy et al., 2003). This expression of emotion will likely be reflected in the grief intensity measure, as it includes assessment of affect and mood. Furthermore, as purported by Martin & Doka (2000), most females identify towards the intuitive (emotive, help-seeking) side of the grieving-response spectrum as opposed to the instrumental (externally problem oriented) side, which may be reflected in higher HGRC grief intensity scores.

**Hypothesis 2: Ethnicity and Grief Intensity**

**Prediction 1.** A main effect for ethnicity (i.e. African American vs. Caucasians) on the outcome of grief intensity is predicted, such that African Americans will report higher levels of grief intensity.

**Prediction 2.** It is expected that ethnic minorities will report higher rates of violent types of loss (i.e. homicide, suicide) than Caucasians.

**Prediction 3.** A main effect for type of loss (i.e. homicide, suicide, accident, illness) on the outcome of grief intensity is predicted, such that those who experience a violent loss will report higher levels of grief intensity.

**Prediction 4.** Moreover, an interaction between the variables of type of loss and ethnicity is predicted on the dependent measure of grief intensity. Specifically, African Americans who experienced a violent loss will report higher levels of grief intensity.
Rationale. Previous research in both adults and emerging adults has indicated that psychological markers of distress are seen at higher levels in those bereaved due to a violent loss compared with a nonviolent one (Holland & Neimeyer, 2011). Ethnic minority emerging adults, specifically African-Americans, have increased risk for experiencing a violent loss, which may help explain their increased risk of negative bereavement symptoms and higher rates of traumatic grief (Zinzow et al., 2009). Therefore, I expect a similar pattern to emerge within this sample, as demonstrated by increased scores on the grief intensity scale of the HGRC.

Hypothesis 3: Gender and Personal Growth

Prediction 1. A main effect for gender on the outcome of personal growth is predicted. It is expected that females will report higher personal growth than males.

Rationale. Females generally report higher rates of personal growth related to a loss than males. Studies suggest that women derive more benefits than men (Linley & Joseph, 2004). I expect to find similar results within this sample, as demonstrated by increased females’ increased scores on the personal growth subscale of the HGRC.

Hypothesis 4: Ethnicity and Personal Growth

Prediction 1. A main effect for ethnicity on the outcome of personal growth is predicted. It is expected that African Americans will report higher personal growth than Caucasians.

Prediction 2. A main effect for religious coping on the outcome of personal growth is predicted, such that those who report higher levels of religious coping will report higher levels of personal growth compared with those who report lower levels of religious coping.
**Prediction 3.** An interaction effect between ethnicity and religious coping on personal growth is predicted. Specifically, African Americans who endorse religious coping will report higher levels of personal growth.

**Rationale.** Past research has found that African Americans experience higher rates of personal growth as a result of a stressful or traumatic experience when compared to their Caucasian counterparts (Helgeson et al., 2006; Caserta, Lund, Utz, et al., 2009). Some researchers argue that this may be due to cultural differences in spirituality, with a greater tendency of African Americans to use religion as a coping mechanism (Stanton, Bower, & Low, 2006). It is predicted that this finding will be replicated within our bereaved emerging adulthood sample.

**Exploratory Analyses**

Extremely few studies have aimed to more fully characterize the relationships between gender, ethnicity, and religious coping in the bereaved emerging adult population. Thus, the latter portion of the current study is largely exploratory. An additional goal of the present study is to investigate whether gender and ethnic differences are present between the HGRC’s negative subscales (e.g. despair, panic behavior, blame and anger, confusion). The extant literature in bereaved emerging adults reveals no studies that evaluate reported levels of HGRC negative subscales between ethnic groups and/or gender. Exploratory analyses on these subscales will allow investigation into these variables for the first time within this population.

**Method**

**Participants**
The sample included 876 undergraduate students from a large, urban, public university in the southeastern United States. Students participated for extra credit in undergraduate psychology courses. Students eligible for participation in the study were at least 18 years of age and were asked to participate only if they had experienced a loss of someone close to them within the last two years. Based on Arnett’s (2000) general guidelines for emerging adulthood, participants between the ages of 18-25 were included in the data analyses. An additional 199 participants were excluded from analyses because their time since loss was greater than 24 months, resulting in 677 participants. This study specifically compares the grief reactions of those identifying as white/Caucasian ($n = 374$) or African American/Black ($n = 136$). The final sample consisted of 195 males (38.2%) and 315 females (61.8%).

**Participant Measures**

**Demographic Questionnaire.** (Appendix A) Participants completed a form including general demographic information such as age, gender, class rank, marital status, religious affiliation, and ethnicity.

**Characteristics of Loss.** (Appendix B) Participants completed a brief survey regarding the circumstances of their loss and their relationship with the deceased. These questioned included: relationship to the deceased, age of the deceased at the time of death, gender of the deceased, time elapsed since the loss occurred, and the circumstances of the death (accident, illness, homicide, or suicide).

**Hogan Grief Reaction Checklist.** (Hogan, Greenfield, & Schmidt, 2001; Appendix C) The Hogan Grief Reaction Checklist (HGRC) is a 61-item self-report measure designed to measure the many dimensions of the bereavement process. This scale was developed as a
response to the lack of psychometrically sound instruments available for studying the process of bereavement. Items were empirically generated based on a qualitative analysis of the written reports and interviews of bereaved adults in a focus group format. Items are worded as declarative statements and responses are measured on a five-point Likert continuum ranging from one (Does not describe me at all) to five (Describes me very well).

The HGRC is a multidimensional measure, including six empirically derived subscales: Despair, Detachment, Disorganization, Panic Behavior, Blame and Anger, and Personal Growth. The Despair subscale accounts for negative emotions in bereavement, such as hopelessness, sadness, and loneliness, and is made up of 13 items. The Detachment subscale measures feelings of detachment and isolation from others as well as avoidance of relationships, and is measured with 8 items. The Disorganization subscale measures the level of difficulty with concentration and working memory, and is measured with 7 items. The Panic Behavior subscale accounts for somatic stress symptoms as well as measuring fear and panic, and contains 14 items. The Blame and Anger subscale measures feelings of injustice and contains 7 items. The personal Growth subscale measures the positive changes that can occur from experiencing a loss, such as becoming more tolerant, compassionate, and hopeful. It is measured with 12 items. Each HGRC subscale is measured by summing subscale responses. However, there is no full-scale HGRC score because the Personal Growth subscale is negatively correlated with the five other subscales. Recent analyses demonstrate that the five grief subscales of the HGRC (Despair, Detachment, Disorganization, Panic Behavior, and Blame and Anger) can be combined reliably into a unitary measure of grief intensity (Gamino, Sewell, & Easterling, 2000). Therefore, the HGRC provides a measure of grief intensity as well as a measure of personal growth. Internal consistency alphas ranged
from .79 to .90 among the six subscales, with an alpha of .90 for the entire instrument (Hogan, Greenfield, & Schmidt, 2001). This study used the overarching grief intensity score as the outcome measure for analysis. The personal growth subscale was used as a separate outcome measure. Exploratory analyses evaluated the specific HGRC subscale scores.

The HGRC demonstrates high rates of convergent and divergent validity. Convergent Validity has been demonstrated through positive correlations between HGRC grief subscales and other measures of grief including the Texas Revised Inventory of Grief (TRIG; Faschingbauer, 1981), the Grief Experience Inventory (GEI; Sanders, Mauger, & Strong, 1985) and the Impact of Events Scale (IES; Horowitz et al., 1979). Results demonstrates that the HGRC subscales correlated with the appropriate subscales from the TRIG, GEI, and the IES. All grief intensity subscales positively correlated with the subscales of the other measures. Negative correlations are reported for the Personal Growth subscale and these three measures. Discriminant validity of the HGRC was assessed with a sample of bereaved mothers based on cause of death (illness, accident, homicide, or suicide) and time since death (Hogan, Greenfield, & Schmidt, 2001). Significant differences on scores of the Blame and Anger and Panic Behavior subscales differentiated between mothers whose children had died in a homicide from other types of loss. Differences were also found for all six subscales between mothers who experienced loss more than three years ago and less than three years ago, indicating that the HGRC is able to measure intensity of grieving symptoms.

**RCOPE.** (Koenig, Pargament, & Nielsen, 1998; Pargament, Koenig, & Perez, 2000; Appendix D). The RCOPE is a multifactor scale that was developed to assess the range of religious coping methods, including both helpful and harmful techniques (Pargament et al., 2000). It was partly designed in response to the more commonly used global indicators of
religiousness (e.g., frequency of prayer, church attendance), which Pargament and colleagues
(2000) thought did not capture the functional roles of religion in coping. Therefore, the goal
underlying the development of the RCOPE was to create a measure that was grounded
theoretically in a functional view of religion’s role in coping. For example, they focused on
measuring how an individual makes use of religion to deal with life stressors rather than
which components of religion were used. Religious coping methods were placed into one of
five categories of important religious functions as identified by Pargament and colleagues,
including “meaning, control, comfort/spirituality, intimacy/spirituality, and life
transformation” (2000, p. 521). Items were then generated to fit into each of the twenty-one
subscales of religious coping methods.

The initial RCOPE was validated on a sample of college students (N=540) and was
analyzed further in a hospital sample of elderly patients (N=551). Following an exploratory
factor analysis on the college sample, 17 factors were identified which accounted for 62.7%
of the variance in the model. Good internal consistency among the 17 subscales was
demonstrated (Cronbach’s alpha 0.61-0.94). A shorter version of the RCOPE (3 items on
each subscale) was used with the hospital sample, which also resulted in good internal
consistency. All but three subscales reached an alpha of 0.65 or higher and seven of the
subscales were at 0.80 or higher. A 43 confirmatory factor analysis on the shortened version
of the RCOPE with the hospital sample revealed 14 factors with acceptable fit. The 17 factor
model, however, was able to distinguish between the two samples through a t-test
(Pargament et al., 2000). In the college student sample, the positive religious coping scales
were consistently positively corrected with stress-related growth and religious outcomes.
Some of the negative religious coping scales were found to positively correlate with stress-
related growth and religious outcomes and some were negatively correlated with physical health. The current study used a shortened version of the RCOPE in data collection, validated by Pargament and colleagues (2004). This 65-item version is comprised of 21 subscales, each with three items. It has been shown to cluster into two factors: positive religious coping and negative religious coping. Fourteen subscales factor together as Positive Religious coping, including Benevolent Religious Reappraisal, Collaborative Religious Coping, Active Religious Surrender, Religious Purification, Forgiveness, Spiritual Connection, Marking Religious Boundaries, Seeking Support from Clergy, Religious Helping, Religious Direction, Self-Directing Religious Coping, Seeking Spiritual Support, Religious Focus, and Religious Conversion. Seven subscales form the Negative Religious Coping scale of the RCOPE, including Punishing God Reappraisal, Demonic Reappraisal, Reappraisal of God’s Powers, Passive Religious Deferral, Pleading for Direct Intercession, Spiritual Discontent and Interpersonal Discontent. Each RCOPE subscale is measured by summing subscale responses.

Procedure

Participants were undergraduate students enrolled in Psychology courses in which they could earn extra course compensation for participation in psychology experiments. Students completed the survey packet in its entirety through the online SONA systems program. SONA systems is a secure and confidential online database that allows students to view and schedule participation in research studies currently being conducted on campus. The students who chose to participate in the current study first viewed a brief introduction. This introduction included the nature of the study, the topics of the questions to be answered, and a statement informing the participants that all participation is voluntary and may be
discontinued at any time. Due to the sensitive and emotional nature of the topics addressed, participants were provided with referral information for the University Counseling Center in the event that reminders of their loss resulted in emotional distress. Participants then completed the study measures. Upon completion of the survey packet, participants were debriefed online and were provided with information regarding University Counseling Services for a second time. Course credit for participation in the study was rewarded upon completion of the survey packet as appropriate.

**Data Analyses**

This study aimed to measure the relationship between ethnicity, gender, and bereavement outcomes such as grief intensity and personal growth. Specific data analysis for the hypotheses were as follows:

To address Hypothesis 1: Gender and Grief Intensity, an independent-samples t-test was used to test for an effect for gender (male vs. female) on the outcome of grief intensity.

To address Hypothesis 2: Ethnicity and Grief Intensity, the criteria proposed by Baron and Kenny (1986) was used to investigate whether type of loss mediated a difference in grief intensity scores between ethnicities, such that type of loss would significantly account for variations in grief intensity scores among ethnicities. To test for the possibility of a mediation effect, there must be significant coefficients between each variable in the model, as Baron and Kenny (1986) state that a significant relationship between each variable is a necessary condition to test for the possible role of a mediator. Standard regressions were used to test for the possibility of a mediation effect. According to Baron and Kenny (1986), a significant mediating effect is indicated by a greater effect between the mediating variable and the dependent variable than the effect between the independent variable and the
dependent variable when entered into a standard regression model. Thus, a standard regression model was used to test for these effects. A Sobel test would then be used to test for mediation by computing the raw regression coefficient and the standard error for the regression coefficient for the association between the independent variable (ethnicity) and the mediating variable (type of loss), and the association between the variables. In this way, the mediation analyses aimed to investigate whether the variable of type of loss speaks to how or why the significant effect between ethnicity and grief intensity occurs.

To address Hypothesis 3: Gender and Personal Growth, an independent-sample t-test was used to determine if there was an effect for gender on the outcome of personal growth as measured by the HGRC.

To address Hypothesis 4: Ethnicity and Personal Growth, the criteria for conducting a mediation analysis proposed by Baron and Kenny (1986) was followed to investigate whether religious coping mediated a difference in personal growth scores between ethnicities, such that religious coping would significantly account for variations in personal growth scores among ethnicities. Standard regressions were used to test the existence of significant coefficients between each variable in the model. Given the significance of each analysis, a standard regression model was then used to test for a greater effect between the mediating variable (religious coping) and the dependent variable (personal growth) than the effect between the independent variable (ethnicity) and the dependent variable (personal growth) when entered into a standard regression model. A Sobel test was used to test for mediation by computing the raw regression coefficient and the standard error for the regression coefficient for the association between the independent variable (ethnicity) and the mediating variable (type of loss), and the association between the variables. The mediation
analyses aimed to investigate whether the variable of religious coping speaks to how or why the significant effect between ethnicity and personal growth occurs.

Results

Descriptive Statistics

Demographic data and outcome variables. Descriptive statistics were calculated for all continuous variables analyzed in the current study. The continuous demographic variables include age and time since the loss (reported in months). The continuous outcome variables include grief intensity, personal growth, positive religious coping, and negative religious coping. Descriptive data is reported in Table 1 below.

The age of participants ranged from 18 to 25 with a mean of 18.9 years based on the inclusion criteria chosen for the study sample. Age was the only analyzed variable that was skewed or kurtotic. Time since loss ranged from 0 to 24 months, with a mean of 11.8 months. A recent loss (within 2 years or less) was a requirement for study participation, which capped this variable at 24 months, yet a normal distribution still resulted.

Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18</td>
<td>25</td>
<td>18.9</td>
<td>1.3</td>
<td>0.06</td>
<td>1.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Time Since Loss (Months)</td>
<td>0</td>
<td>24</td>
<td>11.8</td>
<td>7.7</td>
<td>0.34</td>
<td>0.2</td>
<td>-1.2</td>
</tr>
<tr>
<td>HGRC Grief</td>
<td>44</td>
<td>163</td>
<td>78.3</td>
<td>28.7</td>
<td>1.27</td>
<td>0.9</td>
<td>0.1</td>
</tr>
<tr>
<td>HGRC Growth</td>
<td>12</td>
<td>60</td>
<td>37.7</td>
<td>9.1</td>
<td>0.40</td>
<td>-0.2</td>
<td>-0.2</td>
</tr>
<tr>
<td>Positive Religious Coping</td>
<td>0</td>
<td>126</td>
<td>44.9</td>
<td>27.6</td>
<td>1.22</td>
<td>-0.2</td>
<td>-0.8</td>
</tr>
</tbody>
</table>

Note: Calculations are based on full sample (N=510). There were no missing data present for the frequencies above.

Frequencies

Descriptive data. Frequencies were calculated for each of the categorical demographic variables gathered in this study. Frequencies are presented in the form of
percentages calculated from the final sample size \((N = 510)\) included in the analyses. These variables included gender, ethnicity, class rank, marital status, and religious affiliation. These frequency data are presented in Table 2 below.

As seen in Table 2, the present study’s sample is predominantly female (females \(N = 316\), males \(N = 194\)). The majority of the sample identifies as Caucasian (73.3%), and 26.7% of participants identified as African American. The sample is skewed with regard to class rank as it is mostly comprised of freshmen and sophomore students. The majority of sampled individuals report being single (76.9%). A majority of participants reported a religious affiliation (75.1%), with the remaining participants in the present study sample reported being unaffiliated with a religion (24.9%).
Table 2.

*Frequencies and percentages for demographic variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>194</td>
<td>26.7</td>
</tr>
<tr>
<td>Female</td>
<td>316</td>
<td>73.3</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>374</td>
<td>73.3</td>
</tr>
<tr>
<td>African American</td>
<td>136</td>
<td>26.7</td>
</tr>
<tr>
<td><strong>Class Rank</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>338</td>
<td>66.3</td>
</tr>
<tr>
<td>Sophomore</td>
<td>92</td>
<td>18.0</td>
</tr>
<tr>
<td>Junior</td>
<td>45</td>
<td>8.8</td>
</tr>
<tr>
<td>Senior</td>
<td>32</td>
<td>6.3</td>
</tr>
<tr>
<td>Graduate</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>392</td>
<td>76.9</td>
</tr>
<tr>
<td>Long-Term</td>
<td>110</td>
<td>21.6</td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>Married</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td>Living Together</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Religious Affiliation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliated</td>
<td>383</td>
<td>75.1</td>
</tr>
<tr>
<td>Unaffiliated</td>
<td>127</td>
<td>24.9</td>
</tr>
</tbody>
</table>

*Note:* Calculation of percentages are based on the sample of N=510. There were no missing data present for the frequencies above.

Loss characteristics. In order to better characterize loss in emerging adulthood students, descriptive analyses were performed to look at outcomes based on loss characteristics. Frequencies were calculated for various characteristics of the loss based on items developed for the study by the researchers. These included the circumstance of the loss, the violence of the loss, and the participants’ relationship to the deceased. Table 3 below summarizes the frequency data for these variables.
In summary, Table 3 indicates that the majority of losses occurred as the result of an illness (66.5%) with accident (22.4%) making up the second largest circumstance of loss. The remainder of participants reported the loss occurring as a result of suicide (6.1%) or homicide (5.1%). Using these types of loss to categorize the loss as violent (i.e., suicide, homicide) or non-violent (i.e., illness, accident), the majority of participants reported a non-violent loss (88.8%). Most participants identified their loss figure as an extended family member (58.6%) or friend (33.5%). The remaining participants reported having lost a nuclear family member (5.7%) or classified the relationship to the lost figure as “Other” (2.2%).

Table 3.

Frequencies and Percentages for Characteristics of the Loss

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Circumstance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illness</td>
<td>339</td>
<td>66.5</td>
</tr>
<tr>
<td>Accident</td>
<td>114</td>
<td>22.4</td>
</tr>
<tr>
<td>Suicide</td>
<td>31</td>
<td>6.1</td>
</tr>
<tr>
<td>Homicide</td>
<td>26</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Violence of the Loss</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent</td>
<td>57</td>
<td>11.2</td>
</tr>
<tr>
<td>Non-Violent</td>
<td>453</td>
<td>88.8</td>
</tr>
<tr>
<td><strong>Relationship</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extended Family</td>
<td>299</td>
<td>58.6</td>
</tr>
<tr>
<td>Friend</td>
<td>171</td>
<td>33.5</td>
</tr>
<tr>
<td>Nuclear Family</td>
<td>29</td>
<td>5.7</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>2.2</td>
</tr>
</tbody>
</table>

*Note:* All percentage values are calculated based on the full sample (N=510). There were no missing data present for the frequencies above.

**Hypotheses Testing**

**Evaluation of assumptions.** Assumptions were checked according to the criteria checklist for analyses of variance provided by Tabachnick and Fidell (2007). With regard to outliers, there were some univariate outliers for age (N=5), although these cases were
There were a few univariate outliers for class rank (N=3), marital status (N=4), though these are to be expected based on the large sample size (Tabachnick & Fidell, 2007). With the use of a $p < 0.001$ criterion for Mahalonobis distance, no multivariate outliers among the cases were identified. There were no other univariate outliers for predictor or outcome variables. For the evaluation of variable normality in a large sample, Tabachnick & Fidell (2007) suggest considering the size of the skewness or kurtosis value and the visual appearance of the distribution, rather than the significance of the deviation. This is due to the fact that tests for normality are often unnecessarily sensitive in large samples (e.g., $N > 200$). Based on the visual plots and small degree of skewness and kurtosis in the study variables, it was decided that no transformation of variables was necessary. No cases had missing data, so all analyses made use of the final sample ($N=510$).

**Hypothesis 1.** A two-tailed independent-samples t-test was used to test the hypothesis that gender would impact grief intensity as measured by the HGRC. The test failed to reveal a statistically reliable difference between males ($M=76.41, SD = 29.39$) and females ($M=79.57, SD = 28.75$) on the outcome of grief intensity $t(508) = 1.20, p = .23$. Therefore, Hypothesis 1 was not supported. Please refer to Figure 1 (also located in Appendix E) for a graphical representation of the means.
Figure 1. Hypothesis 1 means for outcome variable grief intensity (as measured by the HGRC) based on the predictor variable of gender.

Hypothesis 2. A mediation analysis implementing the Baron and Kenny (1986) method for testing mediation was used to test the hypothesis that type of loss mediated the effect of ethnicity on grief intensity as measured by the HGRC. A simple regression analysis found that ethnicity had no significant effect on grief intensity, $\beta = .076, p = .088$. Though there was a trend towards significance, the means were in the opposite direction predicted (i.e., Caucasians tended to score higher, though not significantly so). The mean grief intensity score of African Americans was 74.68, ($SD = 28.62$) and the mean score for Caucasians was 79.58 ($SD = 28.62$). Please refer to Table 4 for further results of this regression, and Figure 2 for a visual representation of the grief intensity means between ethnicities.
Table 4.

Summary of Simple Regression Analyses for Ethnicity Predicting Grief Intensity (N = 510)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Grief Intensity</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.90</td>
<td>0.16</td>
<td>.076</td>
</tr>
</tbody>
</table>

$R^2 = .01$

$F = 2.93$

*p < .05. **p < .01.

Figure 2. Hypothesis 2 means for outcome variable grief intensity (as measured by the HGRC) based on the predictor variable of ethnicity.

Thus, because the direct pathway of the mediation model was insignificant, the subsequent mediation analyses assessing the relationships between the mediating variable, independent variable, and dependent variable could not be completed (Baron & Kenny, 1986). To review a visual representation of the proposed mediation model and the regression results, please refer to Figure 3.
Figure 3. Model testing mediation of the ethnicity—grief intensity relation by type of loss (Baron & Kenny, 1986).

To investigate the relationships of the remaining relationships in the proposed mediation model, a Pearson chi-square test of independence was performed to examine the relation between ethnicity and whether the loss was violent (i.e., homicide, suicide) or non-violent (i.e., accident, illness). The relation between these variables was significant, $X^2 (1, n = 510) = 6.15, p < .05$, and the strength of the difference is moderate ($\phi=0.11$). Specifically, 16.9% of African Americans endorsed experiencing a violent loss, while only 9.1% of Caucasians reported experiencing a violent loss.
Table 5.

*Frequencies of violent vs. non-violent type of loss by ethnicity*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Non-Violent (N, %)</th>
<th>Violent (N, %)</th>
<th>Total (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>113 (83)</td>
<td>23 (17)</td>
<td>136</td>
</tr>
<tr>
<td>Caucasian</td>
<td>340 (91)</td>
<td>34 (9)</td>
<td>347</td>
</tr>
<tr>
<td>Total</td>
<td>453 (89)</td>
<td>57 (11)</td>
<td>510</td>
</tr>
</tbody>
</table>

*Note: All frequency values are calculated based on the full sample (N=510). There were no missing data present for the frequencies above.*

To further delineate the relationships between ethnicity and violence of the loss, a Pearson chi-square test of independence was used to test for an effect for ethnicity across violence of the loss. The overall model was significant, and revealed that there was a significant relationship between violence of the loss and ethnicity, $X^2 (1, n = 510) = 6.15, p < .05$. A simple regression analysis was used to examine whether violence of the loss had a significant effect on grief intensity scores, but the relationship was not statistically significant, $F(1, 508) = 0.99, p = .32$, with an $R^2$ of .002. Please see Table 6 for a review of this analysis.

Table 6.

*Summary of Simple Regression Analyses for Violence of the Loss Predicting Grief Intensity (N = 510)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Ethnicity</th>
<th>$B$</th>
<th>SE B</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grief Intensity</td>
<td></td>
<td>4.00</td>
<td>0.16</td>
<td>.044</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td></td>
<td>0.99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01.*
**Hypothesis 3.** An independent-sample t-test was used to determine if there is an effect for gender on the outcome of personal growth, and was found to be significant. The t-test revealed that females ($M = 38.59, SD = 8.93$) reported significantly higher levels of personal growth than males ($M = 36.23, SD = 9.31$); $t(508) = 2.84, p < .01$. Please refer to Figure 4 for a graphical representation of the means. However, the effect size of this result is small (Cohen’s $d = 0.26$; Cohen, 1988). Moreover, further investigation into the relationship of these variables with a more rigorous analysis displayed a non-significant result between gender and personal growth. This analysis is explained in full in the following exploratory analyses section.

![Personal Growth Scores by Gender](image)

*Figure 4.* Hypothesis 3 means for outcome variable personal growth (as measured by HGRC) based on the predictor variable of gender.

**Hypothesis 4.** A mediation analysis determined that positive religious coping mediated the effect of ethnicity on personal growth as measured by the HGRC. Using the Baron and Kenny (1986) method for testing mediation, ethnicity was found to predict personal growth, $\beta = .086, p = .05$. African Americans ($M = 38.99, SD = 8.56$) endorsed
higher levels of personal growth than Caucasians ($M = 37.22$, $SD = 9.3$). For a visual representation of the means, please refer to Figure 5.

![Personal Growth Scores by Ethnicity](image)

*Figure 5.* Hypothesis 4 means for outcome variable personal growth (as measured by HGRC) based on the predictor variable of ethnicity.

Next, ethnicity was found to predict positive religious coping, $\beta = .33$, $p < .001$. When both ethnicity and positive religious coping were entered into a third model, the relation of positive religious coping remained significant, $\beta = .36$, $p < .001$, and the relation of ethnicity to personal growth dropped to nonsignificance, $\beta = .09$, $p = .45$. Using the Sobel test, the magnitude of the relation between ethnicity and personal growth was found to decrease significantly when positive religious coping was included, $z = 5.62$, $p < .001$. Thus, positive religious coping mediated the effect of ethnicity on personal growth. Please refer to Figure 6 for a further description of the meditational analyses.
Summary of Results for Hypotheses 1-4

The results of the current study’s hypothesis testing were mixed. The testing of Hypothesis 1 did not reveal a significant result, as there was not a significant difference between the grief intensity scores of males and females. Hypothesis 2 revealed that African Americans and Caucasians reported significant different frequencies of types loss. However, type of loss was not found to influence grief intensity scores, and there were no ethnic differences in grief intensity scores. Therefore, a mediation analyses could not be completed. Hypothesis 3 predicted that females would report significantly higher levels of personal growth than males, and this hypothesis was supported. However, findings from more rigorous analyses found
this relationship as insignificant, as further explained within the exploratory analyses section (Interaction of Gender and Ethnicity). Hypothesis 4 was confirmed, as analyses found African Americans to report significantly higher levels of positive religious coping than Caucasians. Positive religious coping predicted higher levels of personal growth, and positive religious coping mediated the effect of ethnicity on the outcome of personal growth.

**Exploratory Analyses**

**Individual difference variables and the HGRC Negative Subscales.** A one-way multivariate analysis of variance (MANOVA) was conducted to explore the impact of gender and scores on the HGRC negative subscales (i.e. despair, panic, somatization, detachment, disorganization/confusion). The one-way MANOVA revealed a significant multivariate main effect for gender, Wilks’ lambda = .90, $F(6, 503) = 9.41, p < .001$, partial eta squared = .101. Power to detect the effect was 0.99. Given the significance of the overall test, the univariate main effects were examined. A significant univariate main effect for gender were obtained for the HGRC Panic subscale scores, $F(1, 508) = 10.24, p < .01$, partial eta square = .020, power = .89, with females ($M = 26.51, SD = 10.89$) reporting significantly higher panic than males ($M = 23.43, SD = 9.92$). No differences were found between males and females for grief outcomes regarding levels of despair, anger, detachment, or disorganization. Please refer to Figure 7 for a visual representation of the comparison of the means.
Figure 7. Comparison of the means of males and females obtained for the HGRC subscales.

A one-way multivariate analysis of variance (MANOVA) was conducted to explore the impact of ethnicity (i.e., African American vs. Caucasian) and scores on the HGRC negative subscales (i.e. despair, panic, somatization, detachment, disorganization/confusion). The one-way MANOVA revealed a significant multivariate main effect for ethnicity, Wilks’ lambda = .964, F (6, 503) = 3.10, p < .05, partial eta squared = .036. Power to detect the effect was 0.92. Given the significance of the overall test, the univariate main effects were examined. A significant univariate main effect for ethnicity were obtained for the HGRC Panic subscale scores, F (1, 508) = 12.99, p < .05, partial eta square = .015, power = .95, with Caucasians (M = 25.95, SD = 10.87) reporting significantly higher panic than African Americans (M = 23.65, SD = 9.76). A significant univariate main effect for ethnicity was also found for the levels of disorganization/confusion, F (1, 508), = 8.50, p < .01, partial eta
square = .02, power = .83, with Caucasians ($M = 13.43$, $SD = 5.20$) reporting higher disorganization/confusion than African Americans ($M = 11.86$, $SD = 5.43$). No differences were found between ethnicities for grief outcomes regarding levels of despair, somatization, anger, or detachment. Figure 6 provides a visual representation of mean comparisons on the HGRC grief subscales between African Americans and Caucasians.

![Grief Subscores by Ethnicity](image)

**Figure 8.** Comparison of the means between ethnicities obtained for the HGRC subscales.

**Interaction of gender and ethnicity.** A 2X2 between-subjects analysis of variance (ANOVA) was conducted to investigate whether there was an interaction effect of gender and ethnicity on grief intensity. The ANOVA failed to reveal a main effect of gender on grief intensity, $F(1, 506) = 1.28$, $MSe = 1073.10$, $p = .26$. The ANOVA also failed to reveal a main effect of ethnicity on grief intensity, $F(1, 506) = 2.59$, $MSe = 2170.17$, $p = .11$. In addition, the ANOVA did not find an interaction of ethnicity and gender on grief intensity, $F(2, 506) = 2.43$, $MSe = 2170.17$, $p = .09$. 


A 2X2 between-subjects analysis of variance (ANOVA) was conducted to continue Hypothesis 3’s investigation of the possible effect of gender on personal growth (please refer back to the results of Hypothesis 3 for review). Additionally, this ANOVA aimed to investigate whether there was an interaction effect of gender and ethnicity on personal growth. The ANOVA failed to reveal a main effect of gender on personal growth, \( F(1, 506) = 3.28, MSe = 270.20, p = .07 \). The ANOVA also failed to reveal a main effect of ethnicity on personal growth, \( F(1, 506) = 1.86, MSe = 152.76, p = .17 \). In addition, the ANOVA did not find a statistically significant interaction between the effects of ethnicity and gender on personal growth, \( F(1, 506) = .085, MSe = 7.01, p = .77 \). An ANOVA is considered to be a more conservative test of statistical significance between variables than an independent samples t-test; thus, the ANOVA’s insignificant findings were determined to be a more accurate indicator of the effect of gender on personal growth than the independent-samples t-test used for Hypothesis 3 testing.

**Ethnicity and individual types of loss.** To further follow upon the relationships proposed in the planned mediation for Hypothesis 2, a Pearson chi-square test of independence was used to test for an effect for ethnicity across four specific types of loss (i.e. homicide, suicide, accident, illness). The overall model was significant, and revealed that there was a significant relationship between the type of loss (i.e. Accident, Illness, Suicide, Homicide) and ethnicity, \( X^2 (3, n = 510)=13.73, p < .01 \). Caucasians were substantially more likely to experience a loss due to an accident compared to African Americans, with 25% of Caucasians and 14% of African Americans endorsing a loss due to accident. Furthermore, the likelihood of experiencing a loss to suicide was significantly elevated in African Americans compared to Caucasians (11% vs. 0.4%, respectively). Table 6 provides the frequencies of
these results. The percentages in Table 7 represent the percentage of type of loss within each row of the table (i.e., ethnicity).

Table 7.

**Frequencies and percentages for Types of Loss by Ethnicity**

<table>
<thead>
<tr>
<th>Type of Loss Frequency (N, %)</th>
<th>Illness</th>
<th>Accident</th>
<th>Suicide</th>
<th>Homicide</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>94 (69)</td>
<td>19 (14)</td>
<td>15 (11)</td>
<td>8 (6)</td>
<td>136</td>
</tr>
<tr>
<td>Caucasian</td>
<td>245 (66)</td>
<td>95 (25)</td>
<td>16 (4)</td>
<td>18 (5)</td>
<td>374</td>
</tr>
<tr>
<td>Total</td>
<td>339 (67)</td>
<td>114 (22)</td>
<td>31 (6)</td>
<td>26 (5)</td>
<td>510</td>
</tr>
</tbody>
</table>

*Note:* All percentage values are calculated based on the full sample (N=510). There were no missing data present for the frequencies above.

A simple regression analysis was used to examine whether type of loss had a significant effect on grief intensity scores, but the relationship was not statistically significant, $F(3, 506) = 2.26, p = .080$.

Table 8.

**Summary of Simple Regression Analyses for Type of Loss Predicting Grief Intensity (N = 510)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE$ $B$</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grief Intensity</td>
<td>4.90</td>
<td>0.16</td>
<td>.076</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td></td>
<td>2.93</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$. ** $p < .01$.

Additional exploratory analyses were conducted to examine whether type of loss had a significant effect on personal growth and grief intensity between males and females, but no significant results were found.
Religious affiliation and grief outcomes. Frequency analyses were conducted to examine religious affiliation within the study sample. Twenty-five percent (N = 127) of participants were unaffiliated with a religion, and 75% of participants were affiliated. A Pearson chi-square test of independence was used to test for an effect for ethnicity on religious affiliation. The overall model was significant, and revealed that there was a significant relationship between the ethnicity and religious affiliation, $X^2 (1, n = 510) = 30.54, p < .001$, and the strength of the difference is moderate ($\phi = 0.25$). African Americans were more likely to be affiliated with a religion than Caucasians, with 93% of African Americans identifying as affiliated with a religion, and only 69% of Caucasians endorsing religious affiliation.

Table 9.

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Religious Affiliation</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Affiliated</td>
<td>Unaffiliated</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>African Americans</td>
<td>126 (93)</td>
<td>10 (7)</td>
<td>136</td>
<td></td>
</tr>
<tr>
<td>Caucasians</td>
<td>257 (69)</td>
<td>117 (31)</td>
<td>374</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>383 (75)</td>
<td>127 (25)</td>
<td>510</td>
<td></td>
</tr>
</tbody>
</table>

Note: All frequency values are calculated based on the full sample (N=510). There were no missing data present for the frequencies above.

A two-tailed independent-samples t-test was used to test a statistically significant relationship between religious affiliation and grief intensity as measured by the HGRC. The test failed to reveal a statistically reliable difference between the religiously affiliated ($M=78.54$, $SD = 29.04$) and the religiously unaffiliated ($M=77.45$, $SD = 27.64$) on the outcome of grief intensity $t(508) = -.373, p = .48$.

An additional two-tailed independent-samples t-test was used to test a statistically significant relationship between religious affiliation and personal growth as measured by the
HGRC. The test failed to reveal a statistically reliable difference between the religiously affiliated ($M=38.32$, $SD = 8.76$) and the religiously unaffiliated ($M=35.76$, $SD =10.00$) on the outcome of personal growth $t(508) = 1.21 \ p = .27$. Please refer to Figure 9 for a visual representation of the means for these two analyses.

![Religious Affiliation on Bereavement Outcomes]

**Figure 9.** Comparison of the means between the religiously affiliated and not religiously affiliated obtained for the bereavement outcomes of grief intensity and personal growth, as measured by the HGRC.

**Discussion**

Despite the recent burgeoning of bereavement research, there has remained a gap in the existent literature regarding the relationships between individual difference variables and emerging adults’ bereavement outcomes. Specifically, although research has revealed that gender and ethnicity have strong influences on the loss characteristics and experiences of adults, very few studies have examined whether emerging adults experience these differences in the same way. Investigation into these relationships is merited, as individual differences place some bereaved individuals at high risk for poor bereavement outcomes, such as the development of traumatic grief (Zinzow et al., 2009) or depression (Stroebe, 1994).
majority of emerging adults (60%) are college students (Arnett, 2004), and studies examining the prevalence of bereavement within this population indicate that up to 40% of college students have experienced the death of a loved one within the past two years (Smyth, Hockemeyer, Heron, Wonderlich, & Pennebaker, 2008; Currier, Holland, Coleman, and Neimeyer, 2006). The current study aimed to investigate the effects of gender and ethnicity on multidimensional grief outcomes within a bereaved college student sample.

The results of this study provide empirical support for the distinct bereavement experiences between African American and Caucasian college students. African American college students were found to endorse significantly higher levels of positive religious coping than their Caucasian counterparts, and were more likely to identify as religiously affiliated. African American students also endorsed higher levels of personal growth from their loss. Indeed, results indicate that African Americans’ higher levels of positive religious coping mediated their higher levels of personal growth. Additionally, ethnicity predicted the type of loss experienced. Substantially more Caucasians lost a loved one due to an accident when compared to African Americans, and the likelihood of losing a loved one to suicide was significantly elevated in African Americans. Reflecting the methods of existing bereavement studies on type of loss (i.e., Holland and Neimeyer, 2011), the study also assessed ethnic differences between violent (i.e., suicide, homicide) and non-violent (i.e., illness, accident) type of loss. African American college students endorsed significantly higher likelihood of experiencing a violent loss than Caucasian students.

Results also found that ethnicity has some impact on the way college students experience grief symptoms. Caucasian students endorsed significantly more symptoms of panic behavior, disorganization, and confusion, than their African American peers,
suggesting that Caucasians experience increased difficulty with somatic stress symptoms, fear, panic, concentrating, and working memory (Hogan, Greenfield, & Schmidt, 2001). However, these were the only domain of grief symptomatology that revealed a relationship with ethnicity, as Caucasians and African Americans reported similar levels of despair, detachment, and anger, as measured by the HGRC (Hogan, Greenfield, & Schmidt, 2001).

The current study failed to find substantial bereavement differences between genders, contrary to the study hypotheses. Male and female college students endorsed similar levels of both grief intensity and personal growth experienced from their loss. These findings remained consistent even after accounting for ethnicity. However, results yielded one finding that demonstrated gender differences in grief symptoms. Females reported significantly more grief-related panic behavior than males, indicating a higher proclivity for endorsing somatic stress symptoms (i.e. headaches, shakiness, back pain) and emotive experiences of fear and panic (Hogan, Greenfield, & Schmidt, 2001). No gender differences were found within the remaining symptom domains of grief intensity (despair, detachment, anger, or disorganization).

These results and their relationship to current literature are presented in further detail below.

**Hypothesis Testing**

Hypothesis 1 proposed that females would report significantly higher rates of grief intensity scores when compared to males. Results did not support this hypothesis, and indicate that gender did not significantly impact grief intensity. This result is surprising, as the few existing studies that have investigated gender differences within bereaved college students have reported higher distress in females than males (i.e., Hardison et al., 2005;
Walker, Hathcoat, & Noppe, 2011). A possible explanation for this incongruence is that grief intensity measures were not consistent across studies. Hardison and colleagues (2005) used The Inventory of Complicated Grief (ICG; Prigerson & Jacobs, 2001), while Walker, Hathcoat, and Noppe (2011) administered the Survivor Needs Assessment Survey (SNAS; McMenamy, Jordan, & Mitchell, 2008). To date, no studies have investigated gender differences in college student grief intensity as measured by the HGRC, despite its wide usage among adult bereavement studies. Future research investigating college student gender and grief intensity using a consistent, validated measure such as the HGRC is warranted.

Although the result was unexpected, the finding that grief intensity does not differ between male and female college students provides a valuable contribution to the bereavement literature. Researchers are continuing to disentangle the complex relationship between gender and grief outcomes across ages, relationship statuses, and types of loss, as gender differences in non-spousal bereavement continues to remain unclear (Murphy, Johnson, and Weber, 2002). Most studies on non-spousal loss within the adult population show evidence of higher female distress (i.e., Chiu et al., 2011), but others have found no gender differences (Sanders, 1979). The college population remains largely uninvestigated. The studies within the literature on non-spousal loss have not had a non-bereaved control group, the use of which may unveil more thorough comparisons of the way males and females cope with a loss as opposed to a non-bereavement stressor. Future non-spousal loss studies could benefit from use of a non-bereaved control group in order to control for gender differences. A non-bereaved control group would include participants who had not lost a loved one within the past two years, similar to previous studies who have used a non-
bereaved control group (i.e., Li, 1995; Lee, Willetts, & Seccombe, 1998; Umberson, Wortman, & Kessler, 1992).

Hypothesis 2 proposed that there would be a main effect for ethnicity on the outcome of grief intensity as reported on the HGRC. It was predicted that African Americans would endorse higher rates of violent loss (i.e., homicide, suicide), and that African Americans would report higher levels of grief intensity due to the mediating variable of type of loss. Results indicated that although African Americans endorsed higher rates of violent loss when compared to Caucasians, there was no significant relationship between type of loss and grief intensity scores, and there were no differences between African Americans and Caucasians on the outcome of grief intensity.

These results are surprising for multiple reasons. Prior literature indicates that college students who suffer a violent loss often have worse outcomes compared with nonviolent loss, regardless of individual difference variables. For example, Currier, Mallot, Martinez, Sandy, and Neimeyer (2012) found that college students who had suffered a violent loss in the prior two years showed more distress symptomatology compared to students who had suffered a nonviolent loss or no loss in the prior two years. This correlation has been found within the adult bereavement literature as well (i.e., Kaltman and Bonanno, 2003). Further investigation into the ethnic differences in types of loss revealed that African Americans endorsed a higher propensity for experiencing a loss by suicide than their Caucasian peers. This finding is incongruent with previous research in this area. For example, Kalish and Reynolds’ (1981) study comparing adult African Americans and Caucasians reported that African Americans had a greater number of losses due to homicide and significantly fewer experiences of suicide. The authors proposed that African American’s higher levels of religiosity served as a
buffer to suicide (Kalish and Reynolds’ (1981). Future research should examine the age and ethnicity of the decedent to further investigate possible explanations for these conflicting findings. There is a high rate of suicide within the emerging adulthood population (Centers for Disease Control and Prevention, 2007), which places emerging adults who have experienced the death of a friend at a higher risk of suicide survivorship. Currently, no existing studies offer further exploration into ethnic differences in college student suicidality.

The insignificant relationship between ethnicity and grief intensity contrasts the results of the few other existing studies reviewing ethnic differences in college student bereavement. These studies (i.e., Ickovics, 2006; Oltjenbruns, 1998; Laurie & Neimeyer, 2008) have found young adult and college aged ethnic minorities to endorse higher rates of grief intensity than their Caucasians peers. In one of the largest studies of ethnicity in college student bereavement to date, Laurie and Neimeyer (2008) found African American college students to report higher levels of distress when compared to their Caucasian counterparts, even after accounting for contextual and demographic variables such as type of loss and perceived social support.

A possible reason for the discrepancy between the current study’s results and previous research’s findings may be due to the measures chosen to assess distress in each study. Currier and colleagues (2012) assessed psychological distress with the revised version of the Symptom Checklist-10 (SCL-10-R; Rosen et al., 2000), Laurie and Neimeyer (2008) used the Inventory of Complicated Grief Revised (ICG-R; Prigerson et al., 1995), whereas the current study assessed grief intensity using the HGRC (Hogan et al., 2001). According to Hogan et al. (2001), the HGRC was developed to measure a construct distinct from the SCL-10-R, which is a measure of general psychological distress, and the ICG-R, which is a
measure of complicated grief symptoms. The summation of the five HGRC “misery” subscales forms a single factor of negative affect specific to grief, but higher scores are not meant to be interpretable as a higher likelihood of complicated grief (Hogan et al., 2001; Gamino et al., 2000). Higher scores are also not meant to indicate general psychological distress, and measures such as the SCL-10-R remain more appropriate when trying to assess distress unrelated to the bereavement experience. Based on the discrepancy in results between the present study and other current research, future research is warranted to compare the HGRC to other measures of more general psychological distress (e.g., SCL-10-R, SCL-90), as well as measures of complicated grief symptoms (e.g., ICG-R), particularly because findings may vary by type of loss suffered.

Hypothesis 3 proposed that there would be a main effect for gender on the outcome of personal growth, such that females would report higher levels of personal growth than males. This hypothesis was not supported, as no significant difference between males and females was found on the outcome of personal growth. This finding is surprising, as studies have consistently reported adult females to endorse higher levels of personal growth than adult males (i.e., Helgeson, Reynolds, & Tomich, 2006; Bonanno, Wortman, et al., 2002; Car, 2002; Linley & Joseph, 2004). Some research on college student bereavement has found females to report higher levels of personal growth (i.e., Tedeschi and Calhoun, 1996). There are two studies that have similar findings to that of the present study in that they failed to find significant differences in growth between male and female young adults (i.e., Milam, Ritt-Olson, A. & Unger, 2004; Oljenbruns, 1991). In addition, Wolchic and colleagues (2008) conducted a six-year, prospective, longitudinal study examining posttraumatic growth in a sample of 50 adolescents who had experienced parental death in childhood. They found no
gender differences in personal growth over the six-year study (Wolchic et al., 2008). One possible explanation for these findings, including the findings of the present study, is that the processes responsible for the gender effects in personal growth may not stabilize until adulthood. The adult literature argues that one possible gender effect in personal growth is social support (Tedeschi & Cahoun, 2004), with females endorsing higher levels of personal growth due in part to their higher perception or use of social support (Linley & Joseph, 2004). However, it is possible that gender differences in social support may not appear until older adulthood (Seeman et al., 2002). For example, studies indicate that spousal support is more often the main source of social support for married males than married females, and that married males have a greater loss of social support after the death of their spouse than married females (Stroebe & Stroebe, 1993). To further explore this hypothesis, longitudinal research that measures personal growth across developmental periods is needed. A particularly revealing design would be one that follows bereaved emerging adults into adulthood, particularly comparing married versus unmarried individuals.

Hypothesis 4 proposed that African Americans would endorse significantly higher rates of personal growth than Caucasians due to a mediating variable of religious coping. Specifically, the hypothesis predicted that African Americans would have higher levels of positive religious coping than Caucasians, and that their positive religious coping would mediate their levels of personal growth as reported on the HGRC. This hypothesis was supported, and positive religious coping was found to be a mediator to ethnicity and personal growth. This finding is quite informative when added to the existent literature. There are many studies supporting the influence of religious coping with personal growth (i.e., Ano & Vasconcelles, 2005; Wortmann & Park, 2009; Tedeschi & Calhoun, 2004), and the high
levels of religious coping used within the African American community to deal with loss (i.e., Lund et al., 2009; Mattis, 2002). However, studies on ethnicity and personal growth have largely focused on the adult population, and the current study is one of the first to evaluate the relationship between ethnicity and personal growth within the bereaved college student population.

Hypothesis 4’s confirming finding indicates that African American college students report higher rates of religious coping than Caucasian college students. Studies investigating religion and spirituality among college students have found similar results. Constantine and colleagues (2002) found that African American college students reported greater participation in religious activities and higher levels of spirituality than their Caucasian counterparts. African American college students are similar to adult African American adults in that both age groups report higher use of religious coping during bereavement than Caucasians (i.e., Neimeyer & Burke, 2011).

**Exploratory Results**

Beyond specific hypothesis testing, the present study set out to better characterize bereaved college students based on demographic and loss characteristics. To accomplish this, frequency data and analyses of variances were completed to test for individual difference variables and loss characteristic relationships. There failed to be an interaction effect for ethnicity and gender for both grief outcomes (i.e., grief intensity and personal growth), indicating that ethnic differences in grief outcomes did not vary between genders.

Other exploratory analyses investigated the role of gender and ethnicity on college student’s multidimensional symptoms of grief. Females and Caucasians reported significantly more grief-related panic behavior than males and African Americans, indicating
a higher proclivity of endorsing somatic stress symptoms (i.e. headaches, shakiness, back pain) and emotive experiences of fear and panic (Hogan, Greenfield, & Schmidt, 2001). This finding is similar to previous studies on gender differences in grieving styles, as Stroebe (2001) argues that bereaved females are more likely to express physiological and emotional depressive symptoms than bereaved males. Non-bereavement studies also suggest that women are more acknowledging and expressive of their negative emotions than men, especially when the emotions include anger, sadness, and fear (Lucas & Gohm, 2000). However, the ethnic difference in these symptoms is surprising, as previous studies have found African Americans to endorse higher symptomatology than Caucasians (Neimeyer & Burke, 2011).

One last exploratory analysis examined the relationship of religious affiliation on the present study’s predictive variables and outcome measures. Ethnicity significantly predicted the likelihood of a college student identifying as religiously affiliated. African Americans were more likely to be affiliated with a religion than Caucasians, with 93% of African Americans identifying as affiliated with a religion compared to only 69% of Caucasians. This ethnic difference in religious affiliation has also been demonstrated within the adult African American community (Stanton, Bower and Low, 2006), signifying a continuance in African American’s increased affiliation across generations. However, religious affiliation was not found to influence levels of grief intensity or personal growth. This finding may contribute to the literature arguing that spirituality and positive religious coping influences positive well-being during times of stress more than attendance of a community faith organization (Leming and Dickinson, 1994). That is, the ability to find meaning in the loss may be more useful than the specific religious content used to create that meaning (Marrone, 1999).
Summary of Contributions

Findings from the current study support and expand the literature on bereavement and individual difference variables in college students. Although several of the hypotheses in the current study were unsupported, the study had many results worthy of note. This study found no bereavement differences between male and female college students. However, this study indicates a significant relationship between ethnicity and the college student grief experience in multiple domains. Results from Hypothesis 4 revealed the significant impact of positive religious coping on personal growth, such that higher levels of positive religious coping are associated with more personal growth post-loss. Additionally, this relationship mediated the higher levels of personal growth endorsed by African Americans in the sample when compared to their Caucasian counterpoints. Recent publications have also found religiosity to be associated with higher levels of post-loss growth (Currier et al., 2012), although the current study is the first to investigate the relationship between ethnicity, religious coping, and grief outcomes within a college student population. Additionally, this study indicates that ethnicity of the bereaved was predictive of the type of loss experienced. Consistent with previous literature, African American college students endorsed significantly higher likelihood of experiencing a violent loss than Caucasian students.

Current Study Limitations and Directions for Future Research

While the current study was able to provide a number of contributions to the growing body of literature on bereavement and individual difference variables, particularly in college students, there are several limitations related to study design that should be considered.

First and foremost, the study consisted of cross-sectional data collection comprised of self-report quantitative measures. This restricts the researcher to only draw conclusions
regarding associations and correlations and not determine any causal link between variables. It is also restrictive in its ability to test for effects over time, as the study provided no longitudinal data. This limitation is appropriate, however, as the area of college student bereavement research is relatively new and at the beginning of its expansion. Therefore, studies with a simpler design are helpful in determining whether further research is merited in a new domain. The current study design assists in providing a rationale and direction for allocation of resources in future, more in-depth research.

A second limitation of the current study design is the absence of an item assessing the participants’ closeness to their lost figure during data collection. Though the study included detailed questions regarding loss characteristics by asking about the relationship with the lost figure and and by including other valuable loss description items (see “Demographic Questionnaire” in Appendix A), this item may have proven beneficial as a predictor variable.

Finally, the current study’s sample characteristics belie application to the general emerging adulthood population. The sample was drawn from college students at an urban, southeastern university. Therefore, this sample may not be generalizable to emerging adults across the United States, particularly the portion of emerging adults who are not undergraduate students. For example, this study did not include emerging adults who are currently serving in the military, who are incarcerated. Thus, although the study aimed to provide descriptive loss and bereavement characteristics of emerging adulthood, it is limited in its scope and findings should only be considered for college students. This limitation is appropriate given the study setting and form of recruitment, and supports further research into the complex myriad of emerging adult groups that bereavement and individual difference variable research has yet to investigate.
In spite of these limitations, the current study provided preliminary data to warrant several directions for future research in the areas of bereavement and individual difference variables within college students. This study gave information on loss characteristics in the sample and the relationships between individual difference variables such as ethnicity and gender and grief outcomes. Specifically, the differences in grief outcomes such as grief intensity and personal growth with the influence of violence of the loss and type of loss (i.e., accident, illness, suicide, or homicide). These results provide evidence for the importance of evaluating bereavement in college students and of further research on the bereaved as a whole, especially relative to the impact of individual difference variables.
List of References
List of References


Olshansky, S. J., Antonucci, T., Berkman, L., Binstock, R. H., Boersch-Supan, A., Cacioppo, J. T., & Rowe, J. (2012). Differences in life expectancy due to race and educational differences are widening, and many may not catch up. Health Affairs, 31(8), 1803-1813.


Appendix A
Demographic Questionnaire

Listed below are questions for the demographic section of the survey. Please provide a response for every question.

1. Age: ________

2. Gender: (Please choose one)
   Male       Female

3. Class Rank: (Please choose one)
   Freshman   Sophomore  Junior  Senior  Graduate Student
   Other

4. Marital Status: (Please Choose one)
   Single     Married    Separated  Divorced  Widowed
   Long-Term Relationship (not married)  Living Together (not married)

5. Religious Affiliation:_______________

6. Ethnicity:______________________

7. Which of the following best represents your approximate family income, annually?
   High (above $150,000 per year)
   High Middle (between $90,000 and $150,000 per year)
   Middle (between $50,000 and $90,000 per year)
   Low Middle (between $25,000 and $50,000 per year)
   Low (less than $25,000 per year)
Appendix B

Characteristics of Loss

Listed below are questions for this section of the survey. These questions regard the loss of a family member, friend, or loved one. If you have experienced the loss of more than one significant other, please respond regarding your most recent loss experience. Please provide a response for every question.

1. Please describe your relationship to the deceased (for example, if you are a parent of the deceased, type "parent").

2. How much time has elapsed since your loss occurred (please record your answer in months and years):

3. Which of the following best describes the circumstances of your loved one’s death?

   Accident   Illness   Homicide   Suicide   Military Casualty

4. To what extent was your loved one’s death sudden or unexpected, to what extent were you able to “see it coming” ahead of time?

   Very Expected   Expected   Unexpected   Very Unexpected

5. How much sense would you say you have made of your loss?

   No sense   Little sense   Some sense   A good deal of sense

6. Despite your loss, have you been able to find any benefit from your experience of the loss?

   No Benefit   Little Benefit   Some Benefit   Great Benefit

7. Do you feel that you are different, or that your sense of identity has changed as a result of this loss?

   No different   A little different   Somewhat different   Very different

8. Do you feel that the change described in the question above has been positive or negative?

   Very negative   Negative   Positive   Very positive
Appendix C

Hogan Grief Reaction Checklist

This questionnaire consists of a list of thoughts and feelings that you may have had since your loss. Please read each statement carefully, and choose the number that best describes the way you have been feeling during the past two weeks, including today. Circle the number beside the statement that best describes you. Please do not skip any items.

1 Does not describe me at all  4 Describes me well
2 Does not quite describe me  5 Describes me very well
3 Describes me fairly well

1. My hopes are shattered  1 2 3 4 5 Despair
2. I have learned to cope better with life  1 2 3 4 5 Growth
3. I have little control over my sadness  1 2 3 4 5 Despair
4. I worry excessively  1 2 3 4 5 Panic
5. I frequently feel bitter  1 2 3 4 5 Blame/Anger
6. I feel like I am in shock
   Sometimes my heart beats faster than it normally does for no reason…  1 2 3 4 5 Panic
7. I am resentful  1 2 3 4 5 Blame/Anger
8. I am preoccupied with feeling worthless  1 2 3 4 5 Detachment
9. I feel as though I am a better person  1 2 3 4 5 Growth
10. I believe I should have died and he or she should  1 2 3 4 5 Despair
<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12.</td>
<td>I have a better outlook on life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13.</td>
<td>I often have headaches</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14.</td>
<td>I feel a heaviness in my heart</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15.</td>
<td>I feel revengeful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>I have burning in my stomach</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>I want to die to be with him or her</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>I frequently have muscle tension</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19.</td>
<td>I have more compassion for others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20.</td>
<td>I forget things easily, e.g., names, telephone numbers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21.</td>
<td>I feel shaky</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22.</td>
<td>I am confused about who I am</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23.</td>
<td>I have lost my confidence</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24.</td>
<td>I am stronger because of the grief I have experienced</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25.</td>
<td>I don’t believe I will ever be happy again</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26.</td>
<td>I have difficulty remembering things from the past</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27.</td>
<td>I frequently feel frightened</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28.</td>
<td>I feel unable to cope</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>29.</td>
<td>I agonize over his or her death</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30.</td>
<td>I am a more forgiving person</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>31.</td>
<td>I have panic attacks over nothing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>32.</td>
<td>I have difficulty concentrating</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>33.</td>
<td>I feel like I am walking in my sleep</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>34.</td>
<td>I have shortness of breath</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>35.</td>
<td>I avoid tenderness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>36.</td>
<td>I am more tolerant of myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>37.</td>
<td>I have hostile feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>38.</td>
<td>I am experiencing periods of dizziness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>39.</td>
<td>I have difficulty learning new things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>40.</td>
<td>I have difficulty accepting the permanence of the</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
41. I am more tolerant of others 1 2 3 4 5 Growth
42. I blame others 1 2 3 4 5 Blame/Anger
43. I feel like I don’t know myself 1 2 3 4 5 Detachment
44. I am frequently fatigued 1 2 3 4 5 Panic
45. I have hope for the future 1 2 3 4 5 Growth
46. I have difficulty with abstract thinking 1 2 3 4 5 Disorganization
47. I feel hopeless 1 2 3 4 5 Despair
48. I want to harm others 1 2 3 4 5 Blame/Anger
49. I have difficulty remembering new information 1 2 3 4 5 Disorganization
50. I feel sick more often 1 2 3 4 5 Panic
51. I reached a turning point where I began to let go of some of my grief 1 2 3 4 5 Growth
52. I often have back pain 1 2 3 4 5 Panic
53. I am afraid that I will lose control 1 2 3 4 5 Detachment
54. I feel detached from others 1 2 3 4 5 Detachment
55. I frequently cry 1 2 3 4 5 Despair
56. I startle easily 1 2 3 4 5 Panic
57. Tasks seem insurmountable 1 2 3 4 5 Disorganization
58. I get angry often 1 2 3 4 5 Blame/Anger
59. I ache with loneliness 1 2 3 4 5 Despair
60. I am having more good days than bad 1 2 3 4 5 Growth
61. I care more deeply for others 1 2 3 4 5 Growth

*Note: Each item’s corresponding subscale is listed in italics to the right of each individual item. The items from the Growth subscale are highlighted.
Appendix D

RCOPE

The following items deal with ways you coped with the loss of a loved one which you have experienced. There are many ways to try to deal with problems. These items ask what you did to cope with this negative event. Obviously different people deal with things in different ways, but we are interested in how you tried to deal with it. Each item says something about a particular way of coping. We want to know to what extent you did what the item says. How much or how frequently. Don’t answer on the basis of what worked or not-just whether or not you did it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can. Circle the answer that best applies to you.

1 – Not at all  0
2 – Somewhat  1
3 – Quite a bit  2
4 – A great deal  3

1. Didn’t try much of anything; simply expected God to take control…  0 1 2 3  Passive Religious Deferral
2. Prayed for a miracle……………………………………………………  0 1 2 3  Pleading for Direct Intercession
3. Worked together with God as partners………………………………  0 1 2 3  Collaborative Religious Coping
4. Saw my situation as part of God’s plan……………………………...  0 1 2 3  Benevolent Religious Reappraisal
5. Decided that God was punishing me for my sins.........................
   0 1 2 3  Punishing God Reappraisal

6. Questioned the power of God................................................
   0 1 2 3  Reappraisal of God’s Powers

7. Prayed to get my mind off of my problems..............................
   0 1 2 3  Religious Focus

8. Tried to deal with my feelings without God’s help....................
   0 1 2 3  Self-Directing Religious Coping

9. Did my best and then turned the situation over to God..............
   0 1 2 3  Active Religious Surrender

10. Tried to put my plans into action together with God...............  
    0 1 2 3  Collaborative Religious Coping

11. Believed the devil was responsible for my situation...............  
    0 1 2 3  Demonic Reappraisal

12. Felt punished by God for my lack of devotion......................  
    0 1 2 3  Punishing God Reappraisal

13. Tried to make sense of the situation with God.....................  
    0 1 2 3  Collaborative Religious Coping

14. Trusted that God would be by my side..................................  
    0 1 2 3  Seeking Spiritual Support

15. Did what I could and put the rest in God’s hands..................  
    0 1 2 3  Active Religious Surrender

16. Felt the situation was the work of the devil......................  
    0 1 2 3  Demonic Reappraisal

17. Pleading with God to make things turn out okay..................  
    0 1 2 3  Pleading for Direct Intercession

18. Made decisions about what to do without God’s help..............  
    0 1 2 3  Self-Directing Religious Coping

19. Didn’t do much; just expected God to solve my problem for me...  
    0 1 2 3  Passive Religious Deferral

20. Didn’t try to cope; only expected God to take my worries away...  
    0 1 2 3  Passive Religious Deferral

21. Thought about spiritual matters to stop thinking about my problems  
    0 1 2 3  Religious Focus

22. Realized that God cannot answer all of my prayers................  
    0 1 2 3  Reappraisal of God’s Powers

23. Bargained with God to make things better...........................  
    0 1 2 3  Pleading for Direct Intercession

24. Tried to make sense of the situation without relying on God......  
    0 1 2 3  Self-Directing Religious Coping

25. Looked to God for strength, support and guidance................  
    0 1 2 3  Seeking Spiritual Support
<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Score Distribution</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.</td>
<td>Focused on religion to stop worrying about my problems.</td>
<td>0 1 2 3</td>
<td>Religious Focus</td>
</tr>
<tr>
<td>27.</td>
<td>Sought God’s love and care.</td>
<td>0 1 2 3</td>
<td>Seeking Spiritual Support</td>
</tr>
<tr>
<td>28.</td>
<td>Decided the devil made this happen.</td>
<td>0 1 2 3</td>
<td>Demonic Reappraisal</td>
</tr>
<tr>
<td>29.</td>
<td>Tried to find a lesson from God in the event.</td>
<td>0 1 2 3</td>
<td>Benevolent Religious Reappraisal</td>
</tr>
<tr>
<td>30.</td>
<td>Thought that some things are beyond God’s control.</td>
<td>0 1 2 3</td>
<td>Reappraisal of God’s Powers</td>
</tr>
<tr>
<td>31.</td>
<td>Took control over what I could, and gave the rest up to God.</td>
<td>0 1 2 3</td>
<td>Active Religious Surrender</td>
</tr>
<tr>
<td>32.</td>
<td>Tried to see how God might be trying to strengthen me in this situation.</td>
<td>0 1 2 3</td>
<td>Benevolent Religious Reappraisal</td>
</tr>
<tr>
<td>33.</td>
<td>Wondered what I did for God to punish me.</td>
<td>0 1 2 3</td>
<td>Punishing God Reappraisal</td>
</tr>
<tr>
<td>34.</td>
<td>Asked God to help me be more forgiving.</td>
<td>0 1 2 3</td>
<td>Religious Forgiving</td>
</tr>
<tr>
<td>35.</td>
<td>Wondered whether God had abandoned me.</td>
<td>0 1 2 3</td>
<td>Spiritual Discontent</td>
</tr>
<tr>
<td>36.</td>
<td>Confessed my sins.</td>
<td>0 1 2 3</td>
<td>Religious Purification</td>
</tr>
<tr>
<td>37.</td>
<td>Offered spiritual support to family or friends.</td>
<td>0 1 2 3</td>
<td>Religious Helping</td>
</tr>
<tr>
<td>38.</td>
<td>Prayed for a complete transformation of my life.</td>
<td>0 1 2 3</td>
<td>Religious Conversion</td>
</tr>
<tr>
<td>39.</td>
<td>Prayed to discover my purpose in living.</td>
<td>0 1 2 3</td>
<td>Seeking Religious Direction</td>
</tr>
<tr>
<td>40.</td>
<td>Tried to be less sinful.</td>
<td>0 1 2 3</td>
<td>Religious Purification</td>
</tr>
<tr>
<td>41.</td>
<td>Stuck to the teachings and practices of my religion.</td>
<td>0 1 2 3</td>
<td>Marking Religious Boundaries</td>
</tr>
<tr>
<td>42.</td>
<td>Asked others to pray for me.</td>
<td>0 1 2 3</td>
<td>Seeking Support from Clergy</td>
</tr>
<tr>
<td>43.</td>
<td>Sought help from God in letting go of my anger.</td>
<td>0 1 2 3</td>
<td>Religious Forgiving</td>
</tr>
<tr>
<td>44.</td>
<td>Thought about how my life is part of a larger spiritual force.</td>
<td>0 1 2 3</td>
<td>Seeking Spiritual Connection</td>
</tr>
<tr>
<td>45.</td>
<td>Asked forgiveness for my sins.</td>
<td>0 1 2 3</td>
<td>Religious Purification</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Score</td>
<td>Subscale</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>46.</td>
<td>Looked for a stronger connection with God</td>
<td>0</td>
<td>Seeking Spiritual Connection</td>
</tr>
<tr>
<td>47.</td>
<td>Tried to give spiritual strength to others</td>
<td>0</td>
<td>Religious Helping</td>
</tr>
<tr>
<td>48.</td>
<td>Wondered whether my church had abandoned me</td>
<td>0</td>
<td>Interpersonal Religious Discontent</td>
</tr>
<tr>
<td>49.</td>
<td>Questioned God’s love for me</td>
<td>0</td>
<td>Spiritual Discontent</td>
</tr>
<tr>
<td>50.</td>
<td>Sought a stronger spiritual connection with other people</td>
<td>0</td>
<td>Seeking Spiritual Connection</td>
</tr>
<tr>
<td>51.</td>
<td>Sought spiritual help to give up my resentments</td>
<td>0</td>
<td>Religious Forgiving</td>
</tr>
<tr>
<td>52.</td>
<td>Asked God to help me find a new purpose in life</td>
<td>0</td>
<td>Seeking Religious Direction</td>
</tr>
<tr>
<td>53.</td>
<td>Looked for a total spiritual reawakening</td>
<td>0</td>
<td>Religious Conversion</td>
</tr>
<tr>
<td>54.</td>
<td>Sought God’s help in trying to forgive others</td>
<td>0</td>
<td>Religious Forgiving</td>
</tr>
<tr>
<td>55.</td>
<td>Avoided people who weren’t of my faith</td>
<td>0</td>
<td>Marking Religious Boundaries</td>
</tr>
<tr>
<td>56.</td>
<td>Prayed for the well-being of others</td>
<td>0</td>
<td>Religious Helping</td>
</tr>
<tr>
<td>57.</td>
<td>Prayed to find a new reason to live</td>
<td>0</td>
<td>Seeking Religious Direction</td>
</tr>
<tr>
<td>58.</td>
<td>Tried to find a completely new life through religion</td>
<td>0</td>
<td>Religious Conversion</td>
</tr>
<tr>
<td>59.</td>
<td>Looked for love and concern from members of my church</td>
<td>0</td>
<td>Seeking Support from Clergy</td>
</tr>
<tr>
<td>60.</td>
<td>Ignored advice that was inconsistent with my faith</td>
<td>0</td>
<td>Marking Religious Boundaries</td>
</tr>
<tr>
<td>61.</td>
<td>Voiced anger that God didn’t answer my prayers</td>
<td>0</td>
<td>Spiritual Discontent</td>
</tr>
<tr>
<td>62.</td>
<td>Asked God to help me overcome my bitterness</td>
<td>0</td>
<td>Religious Forgiving</td>
</tr>
<tr>
<td>63.</td>
<td>Looked for spiritual support from clergy</td>
<td>0</td>
<td>Seeking Support from Clergy</td>
</tr>
<tr>
<td>64.</td>
<td>Disagreed with what the church wanted me to do or believe</td>
<td>0</td>
<td>Interpersonal Religious Discontent</td>
</tr>
<tr>
<td>65.</td>
<td>Felt dissatisfaction with the clergy</td>
<td>0</td>
<td>Interpersonal Religious Discontent</td>
</tr>
</tbody>
</table>

*Note: Each item’s corresponding subscale is listed in italics to the right of each individual item. Highlighted items represent negative religious coping strategies.*
Vita

Rachel Elizabeth Weiskittle was born on June 19th, 1991, in Tulsa, Oklahoma, and is an American citizen. She graduated from Centerville High School, Centerville, OH in 2009. She received her Bachelor of Arts in Psychology from The Ohio State University, Columbus, OH in 2013. She is currently working towards a Doctor of Philosophy degree in Clinical Psychology with a concentration in Behavioral Medicine at Virginia Commonwealth University, Richmond, VA. She worked as a research assistant for Sharla Wells Di-Gregorio, PhD, in the Division of Palliative Medicine at The Ohio State University Wexner Medical Center from September 2011 to July 2013 while receiving her Bachelor of Arts. In 2012 she was awarded the Pelotonia Research Fellowship for her research on cancer, end-of-life care, and grief. To date, she has authored four peer-reviewed journal articles, presented her research in five national conference symposiums, and presented 13 posters at national and international conferences. She is currently the clinic coordinator for Richmond Health and Wellness Program’s Behavioral Health Clinic in Richmond, VA. Additionally, she is a student therapist at the Center for Psychological Services and Development, Richmond, VA, and at the Virginia Commonwealth University Medical Center Primary Care Psychology Services, Richmond, VA.