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Constructing Meaning through Religious Coping: Rebuilding the Shattered Assumptive World of Mothers Bereaved by Homicide, Accident, and Illness

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Constructing Meaning through Religious Coping:
Rebuilding the Shattered Assumptive World of
Mothers Bereaved by Homicide, Illness, and Accident

by

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Abstract

Researchers have begun to examine the theory that religion may help bereaved individuals to provide meaning to an otherwise inconceivable event. In addition, work by Janoff-Bulman (1989; 1992) and others (see Kauffman, 2002) has spawned a growing understanding that bereavement forces individuals to restructure and rebuild previously held assumptions about the self and the world. This study examined mediator-moderator effects of positive and negative religious coping on relationships between grief intensity and world assumptions in 117 mothers bereaved by the death of a child (homicide, illness, or accident). Mothers with higher grief intensity rated the world as less meaningful and benevolent and themselves as less worthy than mothers with lower grief. Religious coping mediated these relationships. Bereaved mothers who employed more positive religious coping perceived the world as more meaningful and benevolent and themselves as more worthy than mothers who used less positive religious coping. Mothers who employed more negative religious coping perceived the world as less meaningful than mothers who used less negative religious coping. There were no significant moderator effects. Results suggest that the negative associations of grief with world assumptions may be, in part, offset when grief is processed through positive religious coping and enhanced when grief is processed through negative religious coping. Clinical implications and directions for future research are also addressed.

Acknowledgements

This dissertation is dedicated to the loving memory of my brother, David L. Matthews. You taught me how to find meaning in your loss and reconstruct a world in which I still can honor our life together.

And to my parents who, despite the adversity in bereavement, grew from the experience and beautifully demonstrated their “continued bond” with David. Your journey and healing is an inspiration to all bereaved parents.

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Constructing Meaning through Religious Coping: Rebuilding the Shattered Assumptive
World of Mothers Bereaved by Homicide, Illness, and Accident

Research shows that people coping with loss or trauma often feel forced to make sense of the circumstances, and thereby find “meaning” in the event (Neimeyer, 2001). In addition, work by Janoff-Bulman (1989; 1992) and others (see Kauffman, 2002) has spawned a growing understanding that bereavement forces individuals to restructure and rebuild previously held assumptions about the self and the world. This line of thinking has prompted a considerable amount of research in the last two decades. One area receiving considerable attention is that of religion, and whether or not it operates to help bereaved individuals provide meaning (or an explanation) to an otherwise inconceivable event (Sherkat & Reed, 1992). Some researchers have proposed this, but none have fully examined it (see Gall & Cornblatt, 2002; Golsworthy & Coyle, 1999; Seifert, 2002; Schuchter & Zisook, 1993).

The purpose of this study is to explore whether or not religious coping mediates the relationship between grief intensity and meaning making. To provide the background for this, the literatures relating to meaning making, assumptive world views, and religious coping are reviewed and integrated. The population in this study is bereaved mothers, because the death of a child is considered to be one of the most incomprehensible of human events, and therefore one which has maximal potential for shattering world assumptions (Klass, 1999; Matthews & Marwit, 2004; Wickie & Marwit, 2000). Fathers are not included in this study because so few volunteered to participate and of those who did, the majority were married to mothers who also participated. The present study improves upon existing bereaved parent studies by dividing the population into cause of

death (illness, homicide, accident), thus allowing for more specific and more meaningful comparisons.

The present study employs well-validated instruments to measure beliefs about the meaningfulness of the world and religious coping. To measure beliefs about the meaningfulness and benevolence of the world, as well as one's perception of self worth, Janoff-Bulman's (1989) World Assumptions Scale (WAS) are used. Landsman (2002), who points out the difficulty in measuring "meaning" given the range of existing definitions, acknowledges that Janoff-Bulman's WAS "operationalizes 'meaningfulness' assumptions as concerning beliefs in a just world, controllability of outcomes, and nonrandomness" (p. 24). Religious coping is measured by Pargament's (1990) Religious Coping Activities Scale (RCAS), which has gained prominence in the literature because it addresses religious coping multidimensionally, including aspects that are both positive and negative. While the majority of studies in these areas have employed grief intensity as the dependent variable, there is room to construe the relationship inversely such that grief intensity predicts religious and/or spiritual involvement.

Coping and Bereavement

In order to understand the recent interest in religious coping in bereaved populations, it is necessary to explore the development of the grief and coping literature. Recent reviews suggest that the literature addressing bereavement and coping can be divided into the following categories: (a) general stress and trauma theories, (b) general theories of grief, and (c) models of coping specific to bereavement (Stroebe & Schut, 2001). According to Stroebe and Schut, the first category includes those theories that consider reactions and outcomes related to stressful life events. The second category,

which comprises general theories of grief, addresses the extensive experiences that occur in the face of bereavement, including those that are mental, physical, emotional, and behavioral. These theories give us insight into the ways in which individuals grieve. The third category, which includes models of coping that are specific to bereavement, examines both adaptive and maladaptive patterns of coping. Within this latter context, two distinguishing types of coping styles, approach and avoidance, have been identified. The first type, approach strategies, or “active coping,” have often been associated with more healthful adjustment (Compas, Melcarne, & Fondacaro, 1988; Tremblay, Hébert, & Piché, 1999), although recently avoidance has also been examined as potentially necessary and positive (Bonanno et al., 1995).

Approach Coping. Some researchers have suggested that there are different types of “approach” coping strategies. Some researchers have looked at the benefits of more cognitive, or “problem-focused” coping strategies, while others have examined the affective, or “emotion-focused” coping strategies. The picture is further convoluted as some studies have found that problem-focused coping decreases emotional distress (Mitchell & Hodson, 1983), while others have found emotion-focused coping to be a more adaptive strategy (Baum, Fleming, & Singer, 1983). Meuser and Marwit (1999), working with bereaved spouses, found that griever employ both types of coping in differing proportions. They posit that, for each individual, there is probably an optimal balance between the two depending upon a number of trait and state variables.

Empirical support for approach coping strategies spawned the proposal of the “grief work hypothesis” (Stroebe, 1992), which identifies coping as confronting bereavement by repeatedly going over the events before and at the time of the death. By

this definition, grief work is conceptualized as an active, ongoing, effortful attempt to come to terms with the loss. It requires the mourner to focus on memories, and ultimately work toward decathexis, or detachment, from the deceased. The grief work hypothesis was later criticized because subsequent investigations demonstrated that “working through grief” did not always facilitate recovery. Hagman (2001), for example, points out that frequent use of confrontation to provoke mourning can lead to further trauma and defense. The grief work hypothesis, thus, does not have sufficient empirical support to be accepted as a dominant principle (Jacobs et al., 1994; Wortman & Silver 1989; 2001).

Although grief work was seen as an essential component in coming to terms with loss, researchers began to recognize that other processes were in need of consideration. As early as 1927, Abraham highlighted the fact that griever tended to “internalize” aspects of the deceased into their existing personality as a means of preserving the relationship. Marwit and Klass (1994) and Marwit and Lessor (2000) empirically identified roles that the deceased person actively plays in the ongoing life of the griever. Thus, in recent research, it has been argued that resolution is not marked by detachment, but on the contrary, by integration of the deceased (Harvey, 2000; Klass, 1999, 2001; Klass & Walter, 2001; Marwit & Klass 1994; Klass, Silverman, & Nickman, 1996). Klass (2001) explains that parents actually *transform* the parent-child bond to enable them to keep the child an important aspect of their lives. The task of the mourner, then, is to transform his or her conceptualizations of the deceased, and to integrate this new representation into the survivor’s ongoing life. Klass uses the term “inner representation” to describe this ongoing form that the deceased now takes. Some researchers have

suggested that when grief is most acute, mourners perceive the greatest similarity between themselves and the deceased (Russac, Steighner, & Canto, 2002).

Avoidance Coping. A second prominent coping strategy is that of avoidance, and indeed studies have examined the potential benefits of avoidance of grief. Bonanno and his colleagues (1995), for example, suggest that avoidant grieving strategies may serve a greater function than was previously understood. They suggest that it is often helpful for griever to periodically take respite from their grief. Such mixed results regarding confrontation versus avoidance coping and emotion- versus problem-focused coping have led to more divergence than convergence on the topic of coping with bereavement.

Combining Approach and Avoidance: The Dual Process Model. In response to the complexity produced by these differing paradigms, Stroebe and Schut (1999) proposed the Dual Process Model (DPM), whereby the grieving individual at times engages in emotion-focused coping, at other times engages in problem-focused coping, and, still at other times, avoids the different tasks of grieving. The DPM expands earlier models of bereavement coping by placing all of these in a single coping paradigm. The DPM identifies two basic coping orientations: loss-orientation and restoration-orientation. Loss-orientation coping refers to dealing with, concentrating on, and working through some aspect of the loss experience itself, and includes both emotion-focused and problem-focused components. Loss-orientation coping includes a wide range of affective responses from painful yearning to enjoyable reminiscing. Restoration-orientation refers to the tasks associated with reorganizing life and developing new identities and roles, and also includes both emotion and problem-focused strategies. The DPM maintains that one cannot simultaneously attend to these tasks, but

that the bereaved “oscillates” between restoration-oriented coping, loss-oriented coping, and avoidance.

The Current State of the Field. Many studies have failed to demonstrate why some people show little distress after a loss and do not encounter subsequent difficulties, while others struggle to adapt over long periods of time. In the former, death may signal a sense of relief if the relationship was either stressful (Klass, 2004) or caregiving responsibilities were burdensome (Frantz, Farrell, & Trolley, 2001). In the latter, it may be that the death circumstances were less expected, or more difficult to integrate. The literature supports the notion, for example, that coping with death by murder is a longer grief than coping with more timely death (Anderson et al., 2005; Wortman, Battle, & Lemkau, 1997; Dannemiller, 2002). A lack of overt distress could mean there was no strong attachment to the deceased, or it could indicate avoidant coping that is effective; or it could indicate that more spiritual or global strategies are being employed, such as the survivor incorporating the loss into his or her existing world views.

This reexamination is refreshing as it allows for more sophisticated theorizing as well as potentially more refined clinical approaches. The past decade has witnessed significant changes in bereavement theory. Gone are the presumptions that individuals universally grieve in a step-wise fashion. New theories are emerging which recognize the idiographic nature of grief as well as notions of meaning making and identity reconstruction. The present study is committed to investigating these more contemporary aspects of the coping process. Most recently, leading researchers in the field have addressed ways of looking at meaning making and loss. Among the most important of these are Neimeyer’s (2001a) construct of meaning reconstruction, Janoff-Bulman’s

(1989) theory of rebuilding shattered assumptive world views, and Tedeschi and Calhoun's (1995) concept of post-traumatic growth.

Meaning Reconstruction

Research shows that people coping with loss or trauma often feel forced to attribute meaning to the event; that is, to make sense of the circumstances. The goal of the present study is to better understand the mechanisms through which bereaved mothers may come to find meaning in life events following the death of a child. This post-event search for meaning has been documented by researchers studying survivors' reactions to not only bereavement (Davis, Wortman, Lehman, & Silver, 2000; McIntosh, Silver, & Wortman, 1993; Nolen-Hoeksema & Davis, 1999; Parkes & Weiss, 1983), but also to natural disasters (Erikson, 1976), rape (Burgess & Holmstrom, 1979), incest (Silver, Boon, & Stones, 1983), and spinal cord injury (Bulman & Wortman, 1977). Empirical studies have suggested that the most frequently reported changes in one's sense of self, following the death of a loved one, are existential in nature (Hagman, 2001). The need to find meaning has been so frequently recognized that a number of theorists have suggested that meaning making is a crucial aspect of adjustment. Neimeyer (2001b) maintains that meaning reconstruction in response to loss is the central feature of grieving. Likewise, Gilbert (1997) describes the attribution of meaning to a loss as being "essential" to grief resolution. Although it is exciting to witness this change in the field, one problem is that the terms "meaning making" and "meaning reconstruction" have not been consistently defined.

Definitions of Meaning Making. In order to better understand this construct, it is helpful to explore definitions of meaning making. Attig (2001) breaks down the phrase

“meaning-making” and examines the words as separate entities. He identifies “making” as the self-conscious, active, and deliberate aspect of the process. He stresses that we take the initiative to give meaning to our experiences, particularly our suffering.

“Meaning” is less concrete, and more difficult to define. According to Attig, it refers to our understanding of our place in the larger diagram of the world. Where this becomes of personal significance is related to the fact that each individual has constructed his or her *own* personal diagram of the world based on previous experiences; that is, individuals have their own understanding of their surroundings and of their ultimate life plan and course. When we join the two terms together (“meaning making”) we are essentially referring to our ability to re-evaluate, reinterpret, and restructure our life narratives grounded within the context of this privately constructed world.

As the notion of meaning making emerges in the literature, it will be important to look beyond the constricted perspective that meaning making is a “cognitive achievement” in which the copier merely “positively reframes” a stressful life event (Neimeyer, 2001a). Meaning making is more than this; the process involves an integration of the loss and a reappraisal of one’s own identity. The identity review may be voluntary or imposed. The reality of the loss forces the bereaved to assume new roles and identities (a widow, a single child, no longer being a mother, etc.) and to subsequently find meaning in this new life. Klass (1997), for example, suggested that the death of a child does not signal the end of the relationship with the child, but serves as a stimulus event for integrating the child (and his or her death) into the parent’s personal and social world. As the reality of the death and the reality of the continuing bond are recognized by the parent’s social world, the “inner representation” of the child can be

integrated into the parent's spiritual and personal world. During this process, while the mourner is searching for meaning, he or she is incorporating aspects of the deceased, and therefore working to maintain an attachment. In so doing, meaning is given to the death, and the grief becomes more bearable.

The current emphasis on meaning making in bereavement literature comes from the pioneering work of Robert Neimeyer (2000; 2001a; 2001b). Neimeyer's concept of meaning reconstruction refers to a theoretical construct and clinical application which involves the sharing and processing of life stories through the construction of practical self-narrative. The narrative provides a thread of continuity to one's experience, and a sense of coherence to one's evolving identity at personal and interpersonal levels. In this framework, painful life experiences are viewed as "disruptions" of one's self-narrative. The facilitation of growth involves the process of narrative revision, repair and replacement. This approach allows the mourner to "make sense" of life. It puts an emphasis on the mourner's quest to re-establish his or her constructions of the self and his/her world in light of the death. Neimeyer explains that bereavement challenges the rationality and logic of the mourner's existing life story, and thus forces the mourner to revise and modify his or her understanding of the world.

Baumeister and Newman (1994) have examined the need for constructing meaning as falling into four themes. First, people can make sense of their experiences by giving it a purpose; for example, acknowledging any benefits in the loss. Second, they try to give value to an experience and see it as "just" by constructing narratives that represent their own role in the experience as good; for example, shifting responsibility away from oneself or modifying events to justify one's actions. Third, people strive to

see themselves as efficient and successful by constructing narratives that include information about how to create an environment that is predictable, stable, consistent, and benevolent; for example, individuals may review what they did that was “wrong” to acknowledge ways they can prevent such a disaster from reoccurring. Fourth, people seek a sense of self-worth by constructing narratives that depict themselves as competent and likable. In line with this, Thompson (1998) describes five ways of restoring meaning in one’s life. These include changing one’s goals to be more attainable, making positive reinterpretations, engaging in downward comparisons, accepting some outcomes, and focusing on areas of higher perceived control.

Positive and Negative Elements of Meaning Making. In order to make sense of a seemingly “senseless” event, as is almost always true with the death of a child, individuals are forced to examine the implications and meaning of the event within the broader context of their lives. That is, they must understand both the positive and negative outcomes the event has had on their lives (and possibly on the lives of those around them). Meaning making is enhanced through multiple forms of communication. Some may take the form of therapeutic discussion (Neimeyer, 2001a); others by writing about traumatic events (Pennebaker, 1997; Smyth, 1998); still others by recounting events with friends and family (e.g., life reviews, memory books, etc.). Both research and anecdotal evidence have demonstrated that individuals who experience a traumatic life event feel a need to share that experience, or their feelings about the experience, with others (Klass & Walter, 2001; Rime, 1995).

Although the term “meaning making” suggests a positive outcome following a negative event, Davis (2001) warns against the assumption that making sense of a loss is

equivalent to finding benefits in the loss. He explains that perceived benefits or positives that follow bereavement fall into three categories: that the event (a) led to a growth in character, (b) a gain in perspective, and (c) a strengthening of relationships.

Interestingly, in a study with bereaved caregivers, finding benefit in the loss was *not* significantly associated with the respondent's ability to make sense of it (Davis et al., 1998). In addition, the researchers found that in relationship to emotional adjustment, meaning making diminished with time, whereas finding benefit from the loss strengthened with time. While meaning making and finding benefit in a trauma are uncorrelated (Davis et al., 1998; Davis, 2001), theoretically, the two constructs are related. Thus, the present study is committed to examining the world assumptions of bereaved mothers as a form of meaning making; doing so allows the researchers to draw conclusions about both the positive and negative aspects of meaning making.

The Assumptive World: Shattered and Rebuilt

Defining Assumptive World Views. The concept of the assumptive world refers to ideas and assumptions that give people a norm or standard against which life experiences are interpreted and understood. People access this knowledge base when faced with crisis. Naturally, an assumption can be quite simple, such as assuming that if one sets an alarm for 6:00 in the morning, the alarm will sound at that time. This assumption comes from a formula we have created, and is based on our previous experiences with setting alarms. If the alarm does not ring the next morning, for a brief moment one asks "what happened?" Usually, there is an explanation, such as a power outage in the middle of the night, or setting the alarm for 6:00 PM, rather than AM. At the point that reality does not

follow one's assumptions, one is forced to make adjustments to bring reality back into line by either changing the external world or modifying one's internal beliefs.

Deeper held assumptions about the world, our role in the world, and our relationships with others carry more weight than simple assumptions, particularly given the existential nature of the assumption at hand. The assumptions that I will grow old with my significant other, that my children will die after me, that people are decent and generally kind, that God is a protector, or that I will have a healthy future, give a clear prediction of the way things are, or at least, should be. In this way, our life experiences lead us to assume that the world is generally predictable. When this is disrupted, we struggle for beliefs that will enable us to maintain an assumptive schema. This notion was elaborated by Frank (1961) when he spoke of the "assumptive world":

This is a short-hand expression for a highly structured, complex, interacting set of values, expectation, and images of oneself and others, which guide and in turn are guided by a person's perceptions and behavior and which are closely related to his emotional states and his feelings of well-being. (p. 20)

This notion of the assumptive world presented itself to the study of psychology and traumatology through the work of Parkes (1971) when he defined it as "our interpretation of the past and our expectation of the future, our plans and our prejudices" (p. 102).

The Assumptive World in the Face of Trauma. More recently, Janoff-Bulman (1989) discussed what happens to one's assumptive world view system in the face of trauma. In her more modern paradigm, traumatic events violate our internal guides and shatter our fundamental assumptions about the world and ourselves – assumptions containing benevolence, meaning, and self-worth – which give us a sense of immunity to

such trauma. The present study maintains this position, and argues that these fundamental assumptions allow individuals to attribute meaning to life events. While most of us accept that negative events occur in the world, we assume that such events could not happen to us. Consider, for example, the feeling of relative invulnerability that existed before September 11, 2001. Trauma threatens that illusion and causes us to construct new assumptions about the world that take into account our traumatic events. As traumatic loss interrupts our understanding of the universe, as well as our role in it, we struggle to make sense of a seemingly senseless event and construct a new and modified identity – one that incorporates the loss, and the overwhelming feelings of grief that bereavement brings with it.

Janoff-Bulman (1992) divides negative life events into two distinct types that impact what categories of meaning might be sought. She divides traumatic experiences into either “acts of God” (such as death by an illness or a natural disaster) or those for which other human beings are held responsible (such as homicide or rape). According to Janoff-Bulman and others (see O’Connor 2002-2003), “acts of God” primarily shatter our assumptions about the safety, predictability, and order in the world. Traumas perpetrated by other human beings primarily shatter our assumptions about the benevolence of the world as well as our own self-worth. This explains why in a study by Matthews and Marwit (2004), parents who lost their children to illness reported more negative views about the meaningfulness of the world; that is, they felt the world was more unjust, random, and uncontrollable, while parents who lost their children to murder demonstrated more negative views regarding their own self worth. Matthews and Marwit concluded

that the parents bereaved by homicide placed more blame on themselves in order to maintain that the world is not entirely unpredictable, and that events make sense.

From the largest perspective, the assumptive world is a standard that is created by human experience. Kauffman (2002) offers a more specific outlook on the assumptive world, and suggests that it is the “ordering principle” for the construction of one’s world. Kauffman explains that “assumptive worlds are constant internal constructs” (p. 2) and that interference or disturbance in the constancy of that construct requires the individual to maintain or rebuild itself. Particularly when an event disrupts our values concerning the benevolence of the world, the meaningfulness of the world, and our own self worth, we are forced (usually against our will) to consider whether or not those values will require adjustment. When a negative life event occurs, it essentially shatters our belief system, or as Kauffman describes, “The ability to believe or assume” (p. 3). When a person’s abilities are taken away, it shatters a sense of freedom, and that in itself, is violating and incapacitating. We live in a world in which free will is highly valued, and our ability to create our own realities is at the core of human existence. When such an innate freedom is unexpectedly ripped from us, it causes us to question just how decent the world and (perhaps) God are, after all.

Religious Coping: The Bridge toward Meaning Making and World View Reconstruction

In the present study, the authors are particularly interested in examining the relationship between religious coping and meaning making. Specifically, this study focuses on answering the question: Does religion play a unique role in the coping process that allows bereaved mothers to rebuild shattered views about the self and the world, and does that allow her to see even negative life events as still being meaningful?

Research indicates that religious coping methods mediate the relationship between an individual's general religious orientation and the outcomes of major life events (Pargament et al., 1998); that is, an individual's religious beliefs are related to the way in which they come to understand, question, challenge, explore, and ultimately view the impact of major life events. In the face of a stressful life event, general religious beliefs and practices have to be translated and converted into specific forms of coping. Although it has been noted that religion and spirituality are social constructs (Hill et al., 2000), they can be quite individual and personal when utilized in the context of coping.

Not surprisingly, there are differences in the reported numbers of those who use religious coping. Some researchers have found the majority of participants to report the use of religious coping (Koenig, et al., 1992; Pargament, et al., 1990), while others have reported that only a small percentage of participants endorse religious coping (LaGrand, 1985). Pargament (1997) accounts for this difference by noting the methodological inconsistencies among studies, but he also concludes that "religious coping is, in fact, variable" (p. 137).

Measuring Religious Coping. Given the interest in religious coping for the present study, it is worthwhile to explore the development of instruments that have attempted to measure this construct. Recently, well-developed scales have examined five strategies which incorporate positive and negative coping dimensions (Harrison et al., 2001; Pargament, 1997, Pargament et al., 1988). These strategies include: (1) spiritual support or discontent, (2) congregational support or discontent, (3) benevolent reframing or punishing reframing, (4) use of rituals, such as attending services, and (5) orientation to agency ("control") or problem-solving. This last strategy deserves some attention.

Within this context, there are three types of orientations. First, the self-directing view, in which God is viewed as giving people the freedom and skills to direct their own life; second, the deferring view in which the person waits for the active efforts of God; third, the collaborative view, which can be thought of as a “personal exchange with God,” in which the problem-solving is done by the individual and God together as co-partners. Judeo-Christian beliefs assume a collaborative orientation. The New Testament belief “I can do all things through Christ who strengthens me” (Philippians 4:13) as well as the Old Testament statement “In those days ten men...shall take hold of the robe of a Jew, saying, ‘Let us go with you, for we have heard that God is with you’” (Zechariah 8:23) are examples of the collaborative approach to problem-solving.

Some studies have attempted to examine aspects of religion that may be related to parental bereavement, including frequency of attending religious services and a belief in the afterlife. However, with frequency of attendance, it may not be “religious beliefs” that serve to mediate the mourner’s mood, but support from the religious community. An example of one of these studies is that of Higgins (2002), who concluded that bereaved parents with a belief in the afterlife and a high frequency of attending religious services experience lower levels of depression. However, the implications of these findings are limited not only by the confound of community support, but by using depression as the sole outcome variable, especially in light of recent research differentiating grief from depression (Prigerson et al., 1995).

Positive versus Negative Religious Coping. The last several decades of research on religion and coping have taught us that religion can be a source of comfort or distress, depending on whether the coping strategy is positive or negative. Positive religious

coping is a combination of expressions of spirituality, a secure relationship with God, a belief that there is meaning in life, and spiritual connectedness with others. It includes religious forgiveness, seeking spiritual support, collaborative religious coping, spiritual connection, religious purification, and benevolent religious reappraisal (Pargament, et al., 1998). On the other hand, negative religious coping is a combination of a less secure relationship with God, a tenuous/ominous view of the world, and a religious struggle for significance. It refers to spiritual discontent, punishing God's reappraisals, interpersonal religious discontent, demonic reappraisal, and malevolent reappraisal of God's powers.

Researchers have highlighted that positive religious coping is utilized more frequently than negative religious coping (Pargament, 1997; Pargament et al., 1998). The literature on religious coping indicates that people are more likely to see God and their congregation as a source of love and support than as a source of pain and punishment (Bearon & Koenig, 1990). One of the most recent studies examining religious coping in parents of murdered children found that *negative* religious coping was significantly related to measures of grief intensity in parents of murdered children, whereas *positive* religious coping was not (Anderson, Marwit, Vandenberg, & Chibnall, 2005); that is, parents who reported higher levels of negative religious coping demonstrated higher levels of grief, and that positive religious coping was unrelated to measures of grief intensity.

What Makes Religious Coping Unique?

Unfortunately, few researchers have employed a "between groups" approach to the study of religious versus non-religious coping. Weisner and colleagues (1991) compared religious and non-religious coping in families dealing with a child with a

developmental disorder. Their findings suggested that religious parents coped differently than non-religious parents, but there were no significant differences in overall outcomes of the families on measures of peace of mind and emotional adjustment. In another study comparing religious, semi-religious, and non-religious individuals on measures of loneliness, there were no differences found between the groups (Dufton & Perlman, 1986). Koenig, Sieglar, and George (1989) compared older adults coping with a stressful life event. Again, no significant differences were found between religious and non-religious participants on twelve measures of coping and adaptation.

At first glance, it appears as though religious copers and non-religious copers are equally effective and adaptive in terms of outcome. However, there are problems with the aforementioned studies. First, they do not measure religious coping during the most stressful time, such as bereavement, in which one's assumptive world views are maximally, spiritually, and most obviously shattered. They also do not differentiate among various *types* of religious coping. A closer look at the research suggests that religion *is* a preferred coping method, with most studies showing that 35-79% of individuals reporting that they have used religion to help them cope (Ayele et al., 1999; King, Speck, & Thomas, 1999; Koenig, 1998; Koenig et al., 1992; Koenig et al., 1997). Some have concluded that religion may increase well-being by defending against stress (Ellison, 1991; Reed, 1993).

In grief research, the same findings hold true. Over 80% of participants in a study of more than 300 bereaved adults indicated that their spiritual or religious beliefs were helpful during their grieving process (Frantz, Trolley, & Johll, 1996). In a prospective and longitudinal study of 138 bereaved parents, only religious coping and support group

attendance predicted meaning making (Murphy, Johnson, & Lohan, 2003). Grief researchers have also suggested that religion may be enhanced by bereavement. Chen (1997) proposed that grief has the potential to strengthen spirituality given the existential nature of the trauma. In a study of bereaved family members, 67% of respondents reported that their loss had “strengthened” their religious beliefs (Calhoun & Tedeschi, 1990). Similarly, Frantz and colleagues (2001) eloquently concluded that “spiritual beliefs, whether in the form of a structured religion or a generalized belief system, may be strengthened because there is no other source of reason or solace” (p. 193).

Higgins (2002) purports that there are two aspects of religion which may provide coping strategies for the bereaved. The first, Higgins notes, is the mourner’s internal beliefs to explain the loss or the suffering which comes as a consequence of the loss itself, or other beliefs such as those about life after death. The second includes external factors, such as social support of the religious community. Other researchers have attempted to clarify why religious coping offers a unique experience for mourners, and why it proves to be one of the most beneficial (and preferred) coping methods.

Pargament (1997) stated that “religion offers a response to the problem of human insufficiency” (p. 310). That is, no matter how hard we try, we remain human, finite, and mortal. And when pushed to the limits of our fragility, religion offers a sense of safety and security.

Summary and Rationale for the Present Study

In addition to signaling a confrontation with our own mortality, the death of a loved one leaves the survivor feeling destroyed and helpless. Everything that the survivor once believed to be true and constant has been contested, and the

meaningfulness of their world is, therefore, brought into question (Matthews & Marwit, 2004). Researchers have indicated that in order to survive bereavement and reinvest in life again, one must restructure and make major changes in his/her understanding of the basic assumptions about how the world functions (Matthews & Marwit, 2004). Doing so allows the bereaved to find meaning in the trauma and reinvest in life again.

Grief indicates an awareness of a major discrepancy between “what is” and “what should be.” To this end, religion offers a sense of resolve. It offers spiritual support that may be cognitive in nature. For example, one might think “I am not alone; God is with me.” Religion also offers a sense of control, as well as an explanation for the death (“it was his time to be with God”). Through these mechanisms, religion allows us to find meaning in the loss. Balk and Corr (2001) assert that people who grieve are engaged in a quest for meaning, which they define as a “spiritual task.” Some research studies have begun to examine the theory that religion may help the bereaved to provide meaning (or an explanation) to an otherwise inconceivable event (Sherkat & Reed, 1992). Such studies have suggested this but none have fully examined it (see Gall & Cornblatt, 2002; Golsworthy & Coyle, 1999; Seifert, 2002; Schuchter & Zisook, 1993). The purpose of this study is to explore whether or not religious coping mediates the relationship between grief intensity and meaning making by offering the following hypotheses:

Hypothesis 1. Bereaved mothers experiencing greater levels of grief, as compared to mothers reporting lower levels of grief, will utilize more religious coping, regardless of whether that coping is positive or negative. It has been suggested in the literature that individuals who are strongly impacted by trauma seek solace in religion and spirituality (Ayele et al., 1999; Frantz, Trolley, & Jhll, 1996; King, 1999; Koenig, 1998; Koenig et

al., 1997). It is further hypothesized that this same pattern will be observed in mothers bereaved by various types of loss (homicide, accident, and illness). Given that the interest and focus of religious coping and meaning making is on bereaved parents as an aggregate population, there is no essential reason to divide the bereaved parent population by type of loss. However, since differences in outcome measures have been found in parents bereaved by different circumstances (Matthews & Marwit, 2004; Murphy, Johnson, & Lohan, 2003), it seems wise to divide the sample accordingly.

Hypothesis II. Bereaved mothers who endorse using positive religious coping will see their world, themselves, and their experiences as significantly more meaningful, as measured by the WAS, than mothers who endorse using negative religious coping. That is, mothers who report higher levels of positive religious coping are expected to see the world as more benevolent, less random and more predictable (i.e., meaningful), and themselves as more deserving of good (i.e., self-worthy) than mothers who report higher levels of negative religious coping. As with Hypothesis I, the sample of bereaved mothers will be divided by type of loss.

Hypothesis III. Religious coping mediates the relationship between grief intensity and world assumptions. There is no related literature to support or refute this, so this relationship is entirely exploratory.

Method

Power Analysis

Power analyses were based on a multiple hierarchical linear regression model (Tabachnick & Fidell, 2000). Assuming a p-value of 0.05, a target power of 0.80, and a maximum of 11 predictors in the final step of the regression model, a sample size of 117

yields adequate power to detect changes in R^2 of greater than or equal to 0.07; that is, changes in R^2 that account for greater than or equal to 7% of the variance in the outcome measure (this is equivalent to a Multiple R of approximately 0.26). Conventionally, regression effect sizes of this magnitude are considered small. Based on previous work in this area with similar measures (Anderson et al., 2005), R^2 changes were expected to be considerably greater than 0.07 in the present study. In addition, a sample size of 117 is adequate to detect relationships between individual predictors and the outcome (t statistic) of greater than or equal to 0.20 (standardized regression coefficient or beta weights), which is also considered a small effect size.

Participants

The data for this study were collected as part of an ongoing bereaved parent study at the University of Missouri-St. Louis. Participants were recruited from support groups (Parents of Murdered Children, The Compassionate Friends, Bereaved Parents of America, and Mothers Against Drunk Driving), and from private practices specializing in pediatric oncology. At this time, the sample consisted of 134 bereaved mothers. Of these, 117 provided complete questionnaire packets and thus were used in the present analyses. There were no significant differences between those who provided complete and incomplete questionnaire packets on all demographic variables with the exception of education level. Those who provided incomplete questionnaires were less likely to be college educated ($\chi^2(1) = 4.2, p < .05$).

Procedure

Principle investigators contacted local and national support groups by telephone and email, and requested their assistance in recruiting participants. Willing parents were

given packets containing a consent form (Appendix A), a demographic face sheet (Appendix B), a questionnaire packet (Appendices C, D, E), and a self-addressed return envelope. Parents were instructed to complete each inventory as it applied to themselves at the present time. Parents from the same family were invited to participate with the understanding that each complete and return the questionnaires independently. For families in which both parents agreed to complete the inventories, separate questionnaire packets and return envelopes were provided. For the purpose of the present study, only data collected from bereaved mothers was used. As explained earlier, fathers were omitted both because they were few in number and because most were married to women participants and therefore their data would be non-independent. The anonymity of participants was maintained by separating signed consent forms from the raw data and numerically coding the data packets.

Measures

World Assumptions Scale (WAS; Janoff-Bulman, 1989; Appendix C). The WAS is a 32-item self-report inventory providing subscale scores for self-perceptions of the benevolence of the world (“Human nature is basically good”), meaningfulness of the world (“Life is too full of uncertainties that are determined by chance”), and worthiness of the self (“I am very satisfied with the kind of person I am”). Some items are reverse scored. The WAS has demonstrated adequate reliabilities for each subscale (.86 for benevolence of the world, .74 for meaningfulness of the world, and .87 for measuring self-worth; Ullman, 1997). The WAS also demonstrates high validity confirming the existence and diversity of the three subscales (Janoff-Bulman, 1989; Matthews & Marwit, 2004). Reliability coefficients (Cronbach’s alpha) were computed for each of

the subscales in the existing data set. Reliabilities ranged from .81 to .92. Subscale intercorrelations were also computed, and all subscales were positively correlated (see Table 1).

Revised Grief Experience Inventory (RGEI; Lev, Munro, & McCorkle, 1993; Appendix D). The RGEI is a 22-item inventory, 6-point Likert inventory measuring grief symptomatology and intensity. It has demonstrated adequate internal consistency ($\alpha = .95$) and validity with regard to parental bereavement (Matthews & Marwit, 2004). Typical items on the RGEI include, “I tend to be more irritable with others since the death of my loved one” and “Concentrating on things is difficult.” The instrument yields subscales for Existential Concerns, Tension and Guilt, Depression, and Physical Distress. The subscales have acceptable internal consistency ranging from .72 for Tension and Guilt to .93 for Existential Concerns. In the present study, only the RGEI-Total Score was used as an indicator of grief intensity.

Religious Coping Activities Scale (RCAS; Pargament, 1990; Appendix E). The RCAS is a 29-item self-report instrument which uses a 4-point Likert scale to measure the degree to which people use religious coping to deal with negative life events. The measure shows adequate reliability, with alpha levels ranging from .66 for Avoidance to .96 for Spirituality-based Coping and Religious Support (Thompson & Vardaman, 1997). The instrument yields six subscales. Each is assigned a positive or negative valence, according to works done by Pargament (1990; 1997). The six subscales are:

1. Spiritually-based Coping (12 items; Positive): The degree to which an individual has relied upon an intimate relationship with God to cope with negative life events. An

example from this subscale includes, “Trusted that God would not let anything happen to me.”

2. Religious Support (6 items; Positive): The degree to which an individual perceives he or she is receiving social support from clergy and the church community. An example from this subscale includes, “Attended religious services or participated in religious rituals.

3. Avoidance (3 items; Positive): The degree to which an individual tries to redirect attention away from the negative life event. An example includes, “Focused on the world-to-come rather than the problems of this world.”

4. Deeds (2 items; Positive): The degree to which an individual decides to live a better life following the stressful life event. An example includes, “Tried to be less sinful.”

5. Pleading (3 items; Negative): The degree to which an individual bargained with God and employed a passive dependence on God. An example includes, “Bargained with God to make things better.”

6. Discontent (3 items; Negative): The degree to which an individual feels anger toward God and abandoned by God. An example includes, “Felt angry with or distant from God.”

Results

Demographic Characteristics and Preliminary Considerations

All participants in the study ($N = 117$) were women who had experienced the death of a child. They were, on average, 51.1 years of age ($SD = 11.6$), and 82 (70.1%) were married. The final sample consisted of 47 (40.2%) mothers of murdered children, 33 (28.2%) mothers whose child had died from an illness, and 37 (31.6%) mothers whose

child died in an accident (automobile, drowning, bicycle, etc.) The time since the child's death averaged 80.3 months ($SD = 86.3$). The mean age of the children at the time of death was 17.9 years ($SD = 8.7$). Child's gender was equally divided into 50.4% boys and 49.6% girls. The sample included 70 (67.5%) mothers who were college-educated, and 38 (32.5%) who were not college educated. Nearly all mothers were Caucasian (114, 97.4%). With regard to religious preference, 52% reported being Christian, 25% Catholic, 8% Jewish, 6% reported other religious preferences (Buddhist, Hindu, Muslim), 8% reported a non-specified religious preference, and 1% did not specify a religious preference. For the purposes of the statistical analyses, this was categorically coded as 89 (76.1%) mothers were Christian and 28 (23.9%) were not Christian. More than half of the sample reported having attended a support group (66%), with 14% reported not having done so. Unfortunately, 20% of the sample did not respond to this question.

For all regressions, demographic variables were treated as covariates and entered into the model in step 1. The demographic variables included participant age; marital status; religion at the time of the study; level of education; child's gender; age of the child at the time of death; and months since the child's death at the time of participation in the study. Race was not included as a covariate because 97.4% of the sample was Caucasian. Type of loss (homicide vs. illness vs. accident) was also included as a covariate. Consistent with the requirements for multi-categorical predictors ($k > 2$, where k = the number of categories) in multiple linear regression analysis, the type of loss variable was dummy coded into $k-1$ non-redundant dichotomous variables (Hair, Anderson, Tatham, & Grablovsky, 1984). For dummy-coded loss variable 1: homicide = 1, illness = 0, accident = 0. For dummy-coded loss variable 2: homicide = 0, illness = 1, accident = 0.

Hypothesis I

To test the first hypothesis, that mothers experiencing greater levels of grief will utilize more religious coping, regardless of whether that coping is positive or negative, two hierarchical regression models were computed. The criterion variable for the first regression was the positive religious coping score from the Religious Coping Activities Scale (RCAS). The criterion variable for the second regression was the negative religious coping score from the RCAS. In step 2 of both regression models, the total score of the Revised Grief Inventory (RGEI) was entered as a predictor.

The results of the first regression after step 1 (covariates) indicated that participant religion was significantly associated with positive religious coping ($B = .303$, $p < 0.01$), indicating that Christian participants utilized positive religious coping more than non-Christian participants. No other covariates significantly predicted positive religious coping in step 1. The R^2 after step 1 was 0.173 (adjusted $R^2 = 0.103$), $p < 0.05$. In step 2 of the model, grief was negatively associated with positive religious coping ($B = -.373$, $p < .001$), indicating that lower levels of grief were associated with higher amounts of positive religious coping. Among the covariates, religion remained significant ($B = .319$, $p < .01$). Interestingly, with the inclusion of grief in the model, time since death emerged as a significant predictor of positive religious coping ($B = -.329$, $p < .05$). This relationship indicated that greater amounts of time since the child's death were associated with less use of positive religious coping. The change in significance of time since death after inclusion of grief in the model is likely secondary to the moderately strong correlation between grief and time since death ($r = -0.50$, $p < 0.001$), indicating that grief subsides over time. The change in R^2 associated with step 2 (inclusion of grief in the

model) was 0.085, $p < 0.01$. For the full model, R^2 was 0.258 (adjusted $R^2 = 0.188$), $p < 0.001$. Analysis of residuals for this regression equation showed no evidence of heteroscedasticity or outliers and reasonably normally distributed residuals (See Table 2).

The results of the second regression after step 1 (covariates) indicated that none of the demographic variables were significantly associated with negative religious coping. The R^2 after step 1 was 0.080 (adjusted $R^2 = 0.003$), $p = 0.418$. In step 2 of the model, grief was positively associated with negative religious coping ($B = .508$, $p < .001$), indicating that higher levels of grief were associated with greater use of negative religious coping. The change in R^2 associated with step 2 (inclusion of grief in the model) was 0.159, $p < 0.001$. For the full model, R^2 was 0.239 (adjusted $R^2 = 0.167$), $p < 0.01$. Analysis of residuals for this regression equation showed no evidence of heteroscedasticity or outliers and reasonably normally distributed residuals (See Table 3).

Hypothesis II

To test the second hypothesis that bereaved mothers who endorse using more positive religious coping will see the world as more benevolent, less random and more predictable (i.e., meaningful), and themselves as more deserving of good (i.e., self-worthy), than mothers who endorse using more negative religious coping, six hierarchical regressions were employed (See Tables 4 and 5). The criterion variable for the first regression was the Meaningfulness subscale score of the WAS. No demographic variables significantly predicted the Meaningfulness score in step 1. The R^2 after step 1 was 0.075 (adjusted $R^2 = -.003$), $p = .48$. In step 2 of the model, positive religious coping was added as a predictor variable. Results indicated that positive religious coping ($B = .479$, $p < .001$) and dummy-coded loss variable 1 ($B = -.298$, $p < .01$) were predictive of

Meaningfulness scores, indicating that higher levels of positive religious coping predict higher levels of meaningfulness, and that mothers bereaved by homicide reported lower scores about the meaningfulness of their world events than mothers bereaved by accidents and illness. The change in R^2 associated with step 2 (inclusion of positive religious coping) was .190, $p < .001$. For the full model, R^2 was .265 (adjusted $R^2 = .195$), $p < .001$ (See Table 4).

In the second regression, the model remained the same except that the negative religious coping subscale score of the RCAS was added as a predictor in step 2. Again, no demographic variables significantly predicted meaningfulness scores in step 1. In step 2 of the model, negative religious coping ($B = -.304$, $p < .001$) and dummy-coded loss variable 1 ($B = -.232$, $p = .05$) predicted the Meaningfulness score, with higher levels of negative religious coping and loss due to homicide both predicting lower levels of meaningfulness. The change in R^2 associated with step 2 (inclusion of negative religious coping) was .085, $p < .001$. For the full model, R^2 was .159 (adjusted $R^2 = .080$) $p < .05$. Analysis of residuals for these two regression equations showed no evidence of heteroscedasticity or outliers and reasonably normally distributed residuals (See Table 5).

The third and fourth regression models remained the same except that the Benevolence subscale score of the WAS was the criterion variable. Results of the third regression after step 1 (covariates) indicated that no individual demographic variable significantly predicted benevolence scores, although the R^2 after step 1 was 0.193 (adjusted $R^2 = 0.125$), $p < .01$. The significant R^2 without significant individual predictors was a function of the fact that three demographic variables approached significance at the 0.05 level. In step 2 of the model, positive religious coping ($B = .405$,

$p < .001$) and dummy-coded loss variable 1 ($B = -.224, p < .05$) predicted the Benevolence score, indicating that higher levels of positive religious coping predict more benevolent views about the world, and that mothers bereaved by homicide report lower benevolence scores than mothers bereaved by accidents and illness. Interestingly, with the inclusion of positive religious coping in the model, mother's religion ($B = -.305, p = .001$), child's gender ($B = .196, p < .05$), and time since death ($B = .273, p < .05$) emerged as significant predictors of benevolence scores. The change in R^2 associated with step 2 (positive religious coping) was $.136, p < .001$. For the full model, R^2 was $.329$ (adjusted $R^2 = .265$), $p < .001$. Analysis of residuals for the regression equation showed no evidence of heteroscedasticity or outliers and reasonably normally distributed residuals (See Table 4). The fourth regression model, with negative religious coping entered in step 2, was not significant. Thus, a significant amount of variance in the Benevolence score could not be accounted for by demographic variables or negative religious coping (See Table 5).

The fifth and sixth regression models remained the same except that the Self-Worth subscale score of the WAS was the criterion variable. Results of the fifth regression after step 1 (covariates) indicated that dummy-coded loss variable 2 significantly predicted self-worth scores ($B = 0.25, p < 0.05$). Mothers bereaved by illness reported significantly higher self-worth than mothers bereaved by homicide or accident. The R^2 after step 1 was 0.176 (adjusted $R^2 = 0.107$), $p = 0.01$. In step 2 of the model, positive religious coping ($B = .482, p < .001$) and dummy-coded loss variable 2 ($B = .219, p < .05$) predicted self-worth, indicating that mothers who utilize more positive religious coping reported higher levels of self-worth, and mothers bereaved by

illness reported higher levels of self-worth than mothers bereaved by homicide and accidents. With the inclusion of positive religious coping in the model, mother's religion ($B = -.223, p = .01$) and time since death ($B = .256, p < .05$) emerged as significant predictors of self-worth scores. The change in R^2 associated with step 2 (positive religious coping) was $.192, p < .001$. For the full model, R^2 was $.368$ (adjusted $R^2 = .309$), $p < .001$ (See Table 4).

Results of the sixth regression, with demographics entered in step 1, again indicated that dummy-coded loss variable 2 significantly predicted self-worth scores ($B = 0.248, p < 0.05$). After negative religious coping was entered in step 2 of the model, only dummy-coded loss variable 2 ($B = .224, p < .05$) predicted views about self-worth. Negative religious coping was not significantly predictive of the self-worth score. The change in R^2 associated with step 2 (negative religious coping) was $.024$ ($p = .079$). For the full model, R^2 was $.200$ (adjusted $R^2 = .124$), $p < .01$. Analysis of residuals for these two regression equations showed no evidence of heteroscedasticity or outliers and reasonably normally distributed residuals (See Table 5).

Hypothesis III

The third hypothesis was that religious coping mediates the relationship between grief intensity and world assumptions. In order to demonstrate mediation, three conditions are required in the present case, all based on regression models: (a) Grief intensity, the independent variable, must significantly predict the proposed mediating variables: positive and negative religious coping; (b) grief intensity, the independent variable, must significantly predict the criterion variables: scores on the Meaningfulness, Benevolence, and Self-Worth subscales of the WAS; and (c) positive and negative

religious coping, the mediating variables, must significantly predict the criterion variables when grief intensity is included in the model.

With respect to condition (a) above, these relationships were assessed in the analyses reported for Hypothesis I. In those analyses, it was demonstrated that grief is a significant predictor of both positive and negative religious coping. Thus, the first condition of the mediation models was met in full. The results of those analyses will not be repeated here.

With respect to condition (b) above, three regression models were computed, wherein grief was used to predict the Meaningfulness, Benevolence, and Self-Worth scores of the WAS (corrected for all covariates; covariate results will not be reiterated here, but will be addressed in the final mediation models). The criterion variable for the first regression was the Meaningfulness score. Grief intensity significantly predicted Meaningfulness ($B = -.290, p < .05$), with an associated R^2 of .052, ($p < .05$). In the second regression, grief intensity also significantly predicted the Benevolence score ($B = -.410, p < .001$), with an associated R^2 of .103, ($p < .001$). In the final regression, grief intensity significantly predicted the Self-Worth score ($B = -.473, p < .001$), with an associated R^2 of .103, ($p < .001$). Thus, the second condition of the mediation models was met in full.

With respect to condition (c) above, six regression models were required to test whether positive religious coping mediates the relationship between grief and Meaningfulness, Benevolence, and Self-Worth (three models) and to test whether negative religious coping mediates the relationship between grief intensity and Meaningfulness, Benevolence, and Self-Worth (three models). For all condition (c)

regressions, all covariates and the RGEI grief intensity score were included in the models.

Regarding positive religious coping as a mediator, the results indicated that positive religious coping significantly predicted the Meaningfulness score ($B = .445, p < 0.001$; total $R^2 = .273, p < .001$), the Benevolence score ($B = .325, p < 0.001$; total $R^2 = .297, p < .001$), and the Self-Worth score ($B = .391, p < 0.001$; total $R^2 = .297, p < .001$), with covariates and grief included in the model. Thus, all conditions for mediation regarding positive religious coping were met in full (See Table 6).

Among the covariates for the positive religious coping analyses, dummy-coded loss variable 1 was significant in the model to predict the Meaningfulness score ($B = -.301, p < 0.01$), indicating that mothers with loss due to homicide (relative to mothers bereaved by illness or accident) viewed the world as less meaningful, with both grief and positive religious coping controlled for in the model. Benevolence was significantly predicted by religion ($B = -.268, p < 0.01$), gender of the child ($B = .204, p < 0.05$), and dummy-coded loss variable 1 ($B = -.230, p < 0.05$), indicating that Christian mothers (relative to non-Christian mothers), mothers who had lost a son (compared to mothers who had lost a daughter), and mothers bereaved by homicide (compared to mothers bereaved by illness or accident) saw the world as less benevolent, controlling for grief and positive religious coping. Self-worth was significantly predicted by religion ($B = -.181, p < 0.05$) and mother's education ($B = -.157, p < 0.05$), indicating that Christian mothers (relative to non-Christian mothers) and non-college educated mothers (relative to college educated mothers) reported lower self-worth (See Table 6).

Regarding negative religious coping as a mediator, this variable significantly predicted the Meaningfulness score ($B = -.248, p < 0.05$; total $R^2 = .173, p < .05$) with grief intensity included in the model, indicating that all conditions for mediation were met for negative religious coping with respect to meaningfulness of the world. Negative religious coping, however, did not predict either the Benevolence score ($B = -.023, p = .804$) or the Self-Worth score ($B = 0.000, p = .998$). Thus, negative religious coping did not mediate the relationship between grief intensity and either benevolence or self-worth (See Table 7).

Among the covariates for the negative religious coping and Meaningfulness analyses, only dummy-coded loss variable 1 significantly predicted meaningfulness ($B = -.239, p < 0.05$), indicating that mothers bereaved by homicide (compared to mothers bereaved by illness or accident) saw the world as less meaningful and more random, controlling for grief intensity and negative religious coping (See Table 7).

Interactions of Grief and Religious Coping

The potential for religious coping to moderate relationships between grief intensity and assumptive world views was investigated by computing interaction terms. Two interaction terms were computed: Grief x Positive Religious Coping and Grief x Negative Religious Coping. Consistent with the requirements for interaction terms in multiple linear regression, the grief and religious coping variables were first centered. Centering is accomplished by computing, per variable, deviation scores (from the mean) for each case in the sample, so that the final centered variable has a mean of 0. The centered variables are then multiplied to create the interaction term. This process is required in multiple linear regression models because it eliminates high multicollinearity

between main effect terms in the regression model (here, grief, positive religious coping, negative religious coping) and interaction terms composed of those main effects (here, Grief x Positive Religious Coping and Grief x Negative Religious Coping).

Results indicated no significant interaction effects. With all covariates, the grief main effect, and the positive religious coping main effect included in the models, the Grief x Positive Religious Coping interaction had no significant association with Meaningfulness ($B = -.019, p = .836$), Benevolence ($B = -.008, p = .982$), or Self-Worth ($B = .125, p = .126$). Similarly, with all covariates, the grief main effect, and the negative religious coping main effect included in the models, the Grief x Negative Religious Coping interaction had no significant association with Meaningfulness ($B = .073, p = .437$), Benevolence ($B = .123, p = .151$), or Self-Worth ($B = .101, p = .228$).

Discussion

The present study investigated the mediating role of religious coping in the relationship between grief intensity and meaning making among bereaved mothers. Hypothesis I addressed the relationship between grief intensity and religious coping; specifically, that bereaved mothers experiencing greater levels of grief utilize more religious coping, regardless of whether that coping is positive or negative. Hypothesis II addressed the relationship between religious coping and assumptive world views; specifically, it is suggested that bereaved mothers who report higher levels of positive religious coping would see the world as more benevolent, less random and more predictable (i.e., meaningful), and themselves as more deserving of good (i.e., self-worthy) than mothers who report higher levels of negative religious coping. Finally,

Hypothesis III addressed the more central mediational model; that is, whether religious coping mediates the relationship between grief intensity and world assumptions.

According to Janoff-Bulman (1989; 1992) traumatic events shatter our fundamental assumptions about the world and ourselves – assumptions about the benevolence of the world, the meaningfulness of events, and the value of our own self-worth – which allow us to maintain the belief that negative events may happen to others, but certainly not to ourselves. The belief that people and events are fundamentally good, despite the presence of evil in the world; the belief that seemingly inexplicable events have meaning, despite their apparent randomness or inequity; and the belief that one is deserving of good, despite the experience of major set-backs, all have defensive utility in maintaining psychological and emotional well-being in the face of threats to the self and others. The sudden or untimely death of a child is one such traumatic event that may challenge, or even shatter, these fundamental assumptions.

While not all deaths are traumatic, the death of a child constitutes a major violation of the parent's (and the prevailing culture's) pre-existing expectation that parents will die first and that their children will outlive them (Rando, 1993). When a child dies, the surviving parent no longer feels immune to traumatic events and must incorporate the awareness that "bad things happen to good people." The task, then, is for the grieving parent to revise his or her assumptive world; to consider factors that can (or cannot) be carried from the previous world view system into a new, modified assumptive world. The more reconstruction and modification required of the parent, the more the grieving process becomes complicated. However, researchers have indicated that in order to survive the death of child, the bereaved parent must restructure and make major

changes in their understanding of the basic assumptions about the world (Klass, 1997; Matthews & Marwit, 2004; Romanoff, 1993; Talbot, 1997). Doing so allows these individuals to find meaning in the trauma and ultimately reinvest in life. Research indicates that effective coping responses may mediate the negative relationship between grief intensity and shattered world assumptions by promoting adjustment to loss-related trauma (Neimeyer, 2001a; Tedeschi and Calhoun, 1995).

Among the coping mechanisms being investigated, religious coping is receiving considerable attention. Investigating the impact of religious and spiritual attitudes makes sense given the existential issues raised by the death of a child. Religion has been shown to have strong associations with well-being following loss, in both positive and negative directions. Positive religious coping includes spiritual expression and connection, a secure relationship with God, and benevolent religious reappraisal (Pargament, et al., 1998). It is observed in statements such as: “I trusted that God would not let anything happen to me.” On the other hand, negative religious coping refers to spiritual discontent, a less secure relationship with God, a questionable view of the world, and a religious struggle for significance. This is witnessed in statements such as: “I felt angry with or distant from God.”

Researchers have attempted to clarify why religious coping offers a unique experience for mourners, and why it proves to be one of the most beneficial (and preferred) coping methods. Pargament (1997) suggests that religion offers a response to the problem of “human insufficiency,” meaning that no matter how hard we try, we remain human, finite, and mortal. And when we are pushed to our limits, religion may be the one coping mechanism that allows us to feel safe, secure, and protected.

The present study investigated the theoretical relationship outlined above, and the results support the associations among grief, religious coping, and world assumptions. This study improves upon earlier studies by using a more psychometrically sound measure, the Religious Coping Activities Scale (RCAS; Pargament et al., 1990), which offers a multidimensional assessment of religious coping.

With regard to Hypothesis I, results demonstrated that bereaved mothers reporting lower levels of grief utilized higher levels of positive religious coping. Interestingly, there were no differences among the various types of bereavement; that is, mothers bereaved by homicide, accident, and illness demonstrated similar patterns. These findings suggest that bereaved mothers who take a proactive approach with their religious and spiritual beliefs, may in fact, find significant benefits in this coping method thereby reducing their overall experience of grief symptomatology. These results have important implications. First, they support previous research suggesting that individuals who are strongly impacted by trauma seek solace in religion and spirituality (Ayele et al., 1999; Frantz, Trolley, & Johl, 1996; King, 1999; Koenig, 1998; Koenig et al., 1997). That is, it may be that when pushed to the limits of our fragility, religion offers that sense of safety and security we seek. Religion may help to answer the fundamental question of “Why?” by providing existential and spiritual support. Second, the fact that the data indicate that mothers bereaved by both expected and unexpected circumstances find comfort in religious coping highlights the generalizability of religious coping in the face of loss.

A related, important finding was that with the inclusion of grief in the model, time since death emerged as a significant predictor of positive religious coping. This indicates

that greater amounts of time since the child's death were associated with less use of religious coping, suggesting grief intensity and the need to cope subside over time. This finding supports earlier studies indicating that longer time since death correlates with reduced grief (Meuser & Marwit, 1999, Wickie & Marwit, 2000).

Results of Hypothesis I revealed the opposite pattern with regard to grief intensity and negative religious coping. Analyses indicated that mothers who endorsed higher levels of grief also reported higher levels of negative religious coping. This finding indicates that mothers for whom grief is especially high, feelings of resentment, anger, discontent, and dissatisfaction with religion may be a central issue, and certainly one appropriate for clinical intervention. Additionally, the findings of Hypothesis I support the importance of distinguishing multiple dimensions (positive and negative) of religious coping.

Turning attention to the more central issue of religious coping and assumptive world views (Hypothesis II), results indicate that while positive religious coping was associated with all three dimensions of world views, negative religious coping was not. Further, positive religious coping and type of loss were predictive of Meaningfulness, Benevolence, and Self-Worth scores, but not to the same degree. For example, with regard to Meaningfulness, the data suggest that mothers who use positive religious coping and are bereaved by homicide reported higher scores about the meaningfulness of their world events than mothers bereaved by accidents and illness. The opposite pattern was revealed with negative religious coping; that is, higher levels of negative religious coping predicted lower levels of meaningfulness and mothers bereaved by homicide reported the lowest levels of meaningfulness. This suggests that homicidal deaths are

unique and that for mothers bereaved by homicide, other variables are interfering with the ability to utilize positive religious coping. Perhaps the assaultive and violent nature of homicide causes these mothers to question the utility of God and spirituality.

Furthermore, the fact that homicide is purposeful and inflicted by another human distinguishes it from both the unintentional nature of an accidental death and the more medically explainable nature of an illness. This discrepancy may account for one's diminished sense of justness and control in the world. As such, the desire to turn toward faith, religion, and God may not work as well.

With regard to Benevolence and Self-worth, similar patterns for positive religious coping were found, with results indicating that higher levels of positive religious coping predicted more benevolent views about the world, and higher views of self-worth.

Interestingly, mothers bereaved by homicide reported the lowest levels of benevolence and mothers bereaved by illness reported the highest levels of self-worth. As with meaningfulness views, it is likely that mothers bereaved by homicide fail to see the world as a good and decent place (Benevolence) given the external nature of the death circumstance. In the case of mothers bereaved by homicide, their sense of self and views of self-worth do not appear to be affected by their child's murder; however, they appear to see the world as unjust and malicious. These more negative world views may impede their capacity to incorporate religion in a positive framework. In the case of mothers bereaved by illness, their sense of self remains intact, and is in fact, much higher than mothers bereaved by unexpected circumstances. This stronger sense of self-worth and personal value may be a function of having served in the positive, worthy role of care provider.

Unlike the results for Meaningfulness, negative religious coping was not associated with either benevolence or self-worth in the Hypothesis II regressions. This may be because the belief that events make sense and happen for a reason (“meaningfulness”) has a spiritual basis for some individuals, given that the justness in the world could potentially be viewed as related to God’s power. Such a belief would encompass positive religious coping mechanisms. Individuals who are questioning their faith and experience a displeased relationship with God (negative religious coping) may still be able to maintain the belief that the world is a good and decent place, and that they are still worthy human beings who are deserving of good.

The primary purpose of this study was to explore whether or not religious coping mediates the relationship between grief intensity and meaning making. Specifically, Hypothesis III focused on answering the question: Does religion play a unique role in the coping process that allows bereaved mothers to rebuild views about the self and the world, and does that allow them to see even negative life events as still being meaningful?

To answer this question and demonstrate mediation, three conditions had to be met: (1) grief intensity had to significantly predict positive and negative religious coping; (2) grief intensity had to significantly predict Meaningfulness, Benevolence, and Self-Worth; and (3) positive and negative religious coping, the mediating variables, had to significantly predict Meaningfulness, Benevolence, and Self-Worth when grief intensity was included in the model.

The first condition, grief intensity predicting religious coping, was met and addressed in the discussion of Hypothesis I above. The second condition, grief intensity

predicting world views, was also upheld. Bereaved mothers experiencing higher levels of grief perceived the world as less benevolent, less meaningful, and themselves as less worthy and deserving of good than mothers experiencing lower levels of grief. These findings are consistent with previous studies. For example, Matthews and Marwit (2004) found that bereaved parents, as opposed to non-bereaved parents, demonstrated significantly more negative views on all subscales of the WAS. Within the bereaved parent populations, Matthews and Marwit also found that parents bereaved by murder, accident, and illness demonstrated unique reactions to the circumstances of their losses. The authors concluded that various types of loss may force a bereaved parent to challenge and modify certain shattered world views and to do so to different degrees depending on the nature of the loss. While the current findings concerning grief intensity and world assumptions are somewhat peripheral to the study's primary focus on religious coping, they are important in that 1) they constitute a necessary assumption in the mediation model, and 2) they add to the consistency across existing studies, thereby solidifying the basis for drawing theoretical implications regarding the assumptive world views of bereaved parents.

The third condition, positive and negative religious coping significantly predicting Meaningfulness, Benevolence, and Self-Worth when grief intensity is included in the model, was also supported. Mothers who endorsed using more positive religious coping identified the world as more benevolent, more meaningful, and themselves as more worthy and deserving of good. This interesting finding suggests that individuals who approach positive aspects of religion and regard their religiousness as a coping mechanism maintain more positive view about the world, even following a traumatic

event such as the death of a child. In other studies investigating the utility of religion in coping with loss or trauma, investigators have acknowledged the robust connection between religion and adjustment (Frantz, Trolley, & Johll, 1996; Murphy, Johnson, & Lohan, 2003; Neimeyer, 2001). Research shows that survivors of crisis often feel forced to make sense of the circumstances, and thereby find “meaning” in the event. For example, Golsworthy and Coyle (1999) used semi-structured interviews to examine the relationship between religiosity/spirituality and meaning-making in Christian older adults. While their study shed some light on the meaning-making process of this somewhat restricted population, it neglected to include the experiences of individuals who did not find their spiritual beliefs helpful and it relied totally upon self-report (that is, it did not employ any instruments demonstrating good reliability and validity.) Similarly, in a study by Gall and Cornblatt (2002), researchers questioned breast cancer survivors about the ways in which religious and spiritual factors played a part in their coping with their illness. The authors found that a large majority of these breast cancer survivors used religious coping activities, such as prayer and church attendance, and described turning to God for support and guidance. In addition, these authors found that the survivors openly discussed having “created meaning within the greater context of [the survivors’] spirituality and...link with a higher power” (p. 529). What is less clear is how the authors came to conclude that religious coping activities (prayer, church attendance) and one’s relationship with God provided meaning in the absence of sound statistical analyses. Indeed, their cognitive model is an important start and potentially paves the way for future research, but it does not encompass the multidimensional aspects of religious coping. Finally, in Seifert’s (2002) brief review of the relationship between

aging, religion, and the search for meaning, she argued against the preconceived notion that aging brings people closer to a search for meaning. She discussed several studies which alluded to the fact that crisis catalyzes the search for meaning and/or spiritual transformation, and ultimately concluded that the meaning search, religiousness, and spirituality are linked to age through individual experiences (such as bereavement).

In sum, then, several studies and theoretical reviews have suggested that religion can facilitate the meaning-making process, but extensive and methodologically sound examinations have been limited. Indeed, the direction in which religion comes into play remains a mystery. It may be that spirituality becomes strengthened following loss which allows one to assert more positive views about the world and the self. Just the same, it may be that individuals who have maintained benevolent views of the world and the self, in turn, hold positively regarded views about their religion and subsequently turn toward their belief system to cope. This “chicken and egg” problem requires further research and perhaps the development of more refined assessment measures. Nevertheless, research demonstrates that religious coping offers a unique coping mechanism for mourners, and consistently proves to be one of the most beneficial (and preferred) coping methods.

Another interesting finding in satisfying the third condition of the mediational model was that bereaved mothers who employed more negative religious coping perceived the world as less meaningful, although negative religious coping was not associated with views regarding benevolence and self-worth. An examination of the subscale items for the Meaningfulness dimension reveals an interesting theme. The items include questions such as: “Generally people deserve what they get in the world”, “The

course of our lives is largely determined by chance,” and “Through our actions we can prevent bad things from happening to us.” Clearly, the meaningfulness subscale measures beliefs about events “fitting with” one’s view of the orderliness of the world. Theorists posit that that our world “makes sense” based on our construction of social laws that enable us to account for specific events (Janoff-Bulman & Frieze, 1983). Furthermore, by regarding ourselves as able to “control” our destiny, we are able to make sense of our life experiences. The world does not appear as meaningful to bereaved individuals as to non-bereaved (Matthews & Marwit, 2004; Schwartzberg & Janoff-Bulman, 1991). This is particularly true for bereaved parents given that child death is perhaps one of the most incomprehensible and extraordinarily traumatizing of deaths given the unique bond between parent and child (Klass, 1988; 1999). Klass’ (1988) research suggests that parents identify with their children, such that their children become a representation of themselves as children. As such, the parents can “live through” their children and even become what they wish their own parents had been. This introjection makes parenting a significant aspect of one’s own identity, and in some cases, the most important role in their lives. In Klass’ more recent (2001) work, he discusses how parents derive meaning through their parenting roles. To this end, when a child dies, the parent not only loses his or her child, but loses a sense of self, and a major portion of their identity.

Interestingly, the present study found that negative religious coping was not associated with benevolence views and measures of self-worth. This indicates that bereaved mothers experiencing higher levels of grief who employ more negative religious coping are still able to see the world as a relatively caring environment and

themselves as deserving of good. Examples of questions about the benevolence of the world are: “Human nature is basically good”, “People are basically kind and helpful” and “If you look closely enough, you will see that the world is full of goodness.” The questions address issues relating to human nature and the decency of the world. Examples of questions assessing self worth are: “I am luckier than most people”, “Looking at my life, I realize that chance events have worked out for me” and “I am very satisfied with the kind of person I am.” Grieving mothers who use more negative religious coping may preserve the belief that the world is a good place in order to see themselves as worthy, decent human beings. Contrarily, the meaningfulness dimension has a more existential and spiritual undertone; individuals who feel the world is random, uncontrollable, and unjust may feel that God is responsible for the distribution of negative events. These individuals may also be questioning *who* is responsible, hence the bargaining and pleading behaviors associated with negative religious coping. Taken together, these findings suggest that the negative associations of grief with world assumptions may be, in part, offset when grief is processed through positive religious coping and enhanced when grief is processed through negative religious coping.

The results of the present study are consistent with findings from previous studies. In a study of bereaved college students, Schwartzberg and Janoff-Bulman (1991) found that half of their participants were able to answer the question, “Why?” In other words, half of their participants found meaning in the death. Of those who did, a large sub-sample used religion or spirituality *positively* to assist in their meaning-making process. Of particular emphasis in their study was that there were significant differences in the Meaningfulness scores (from the WAS) between those who found meaning and those

who did not. This finding leaves us to question why there are such differences among those who are able to find meaning and those who do not. The results of the present study and those of Schwartzberg and Janoff-Bulman's study suggest that religious coping may play a significant role for a significant number of traumatized people. The fact that the majority of the participants in the aforementioned study who found meaning *also* endorsed using spirituality in a positive way, coupled with the present finding that positive religious coping mediates the relationship between grief intensity and meaningfulness suggests that positive religious coping, as opposed to negative religious coping significantly facilitates the meaning-making process. It may be that negative religious coping, or feelings such as spiritual discontent and behaviors such as pleading with God, ultimately lead one to feel as though they do not have control over randomly occurring bad events. Such a belief may even lead one to feel abandoned by God, and ultimately lessen the likelihood of finding meaning in traumatic events such as the death of a child.

Results of the present study are limited by several factors. First, the retrospective, cross-sectional, correlational nature of this study impacts its internal validity. The causal nature of the relationships, and thus the direction of the associations, are indeterminate (e.g., mothers with positive world assumptions may employ more positive religious coping, or mothers who employ more positive religious coping may preserve more positive world assumptions). In addition, alternative unmeasured variables may explain or moderate the associations found. For example, there is a literature on the potential effects of support systems on coping with grief (Goodkin et al., 2001). Historically, researchers have identified social support as the strongest (and most consistent) predictor

of post-loss adjustment (Windholz, Marmar, & Horowitz, 1985). Numerous studies have shown that grief support groups can reduce psychological distress (Kay & Portillo, 1989; Sikkema, Kalichman, Kelly, & Koob, 1995), including reported levels of grief (Goodkin, et al., 1999). Issues of selection-bias, including non-random selection of participants, use of mothers only as participants, and the disproportionate number of Christian participants, affect the generalizability of the present findings. Furthermore, construct validity may be affected by the preponderance of self-report measures, the retrospective nature of data collection, and the fact that each measure was administered only once. A more longitudinal approach with multiple points of evaluation would provide a more thorough understanding of the role religious coping plays in facilitating meaning reconstruction by rebuilding the shattered assumptive world.

The next steps in this series of studies will focus on addressing the above limitations. Once construct validity is more firmly established, attention will be directed toward examining the efficacy of treatment interventions to modify and change negative assumptions following a loss. For bereaved parents who endorse a spiritual component to their lives, the above results suggest that treatment should be directed at integrating positive religious coping strategies and replacing statements of spiritual dissatisfaction. Intervention techniques should work to encourage the mourner to use positive aspects of religion (such as religious support) to facilitate the meaning making process. In addition, the present study found that parents experiencing higher levels of grief who employ negative religious coping, continue to see the world as good, and themselves as worthy, but still see the death of their child as a random and senseless act that does not fit with previously held assumptions about the meaning of the world. Based on this finding,

treatment for parents who endorse spiritual discontent should employ a cognitive-behavioral framework, focused on rebuilding new beliefs which integrate the notion that the future for the mourner will be one in which he or she can exert some control over events, and that life itself is not entirely random. Clinical treatment should also work to process the Western Judeo-Christian religious indoctrination that leads parents to question their religious assumptions when a child dies; that is, the assumption, "If I do good, then good will follow." Such a view leads people to believe that they have control over outcomes, and based on their behavior (and possibly God's will), events will make sense and occur deliberately. The inability for a parent to exert control with regard to protecting their child may lead them to feel guilt. Miles and Demi (1984) discuss the "moral guilt" experienced by many bereaved parents, or the feeling of moral responsibility for the death. Some parents, then, may feel as though their child's death is a result of their own sins and incompetence. It may behoove clinicians, when taking a history of bereaved parents, to determine any changes in religious beliefs and behaviors since the death, as well as to explore any struggles or conflicts regarding faith and spirituality. Various modalities of therapy may be stymied if an individual's basic religious assumptions, which can be so deeply ingrained, persist in the midst of crisis.

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Table 1

Correlation Coefficients for Relations among Assumptive World Views (WAS)

Measure	Meaningfulness	Benevolence	Self-Worth
Meaningfulness	--	--	--
Benevolence	-.366**	--	--
Self-Worth	-.228**	.775**	--

Note. ** Indicates correlation is significant at the .01 level (2-tailed).

Table 2

Prediction of Positive Religious Coping from Covariates and Grief (RGEI)

Predictor Variables	Final Beta	R ² Δ	F (df) R ² Δ
<i>Step 1</i>		0.173	2.5 (9,107)*
Mother's age	.082		
Mother's marital status	.008		
Mother's education	-.095		
Mother's religion	.319**		
Child's gender	-.052		
Child's age at death	-.122		
Time since child's death	-.329*		
Dummy-coded loss variable 1 ^a	.181		
Dummy-coded loss variable 2 ^a	-.067		
<i>Step 2 – Grief (RGEI)</i>	-.373**	0.085	12.2 (1,106)**
<i>Full Model</i>		0.258	3.69 (10,106)***

^a Dummy-coded loss variable 1: homicide = 1, illness = 0, accident = 0; dummy-coded loss variable 2: homicide = 0, illness = 1, accident = 0.

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

Table 3

Prediction of Negative Religious Coping from Covariates and Grief (RGEI)

Predictor Variables	Final Beta	R ² Δ	F (df) R ² Δ
<i>Step 1</i>		0.080	1.03 (9,107)
Mother's age	-.109		
Mother's marital status	.017		
Mother's education	-.027		
Mother's religion	-.023		
Child's gender	-.05		
Child's age at death	-.087		
Time since child's death	.193		
Dummy-coded loss variable 1 ^a	-.074		
Dummy-coded loss variable 2 ^a	.023		
<i>Step 2 – Grief (RGEI)</i>	.508**	0.159	22.13 (1,106)***
<i>Full Model</i>		0.239	3.33 (10,106)**

^a Dummy-coded loss variable 1: homicide = 1, illness = 0, accident = 0; dummy-coded loss variable 2: homicide = 0, illness = 1, accident = 0.

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

Table 4
Prediction of Assumptive World Views (WAS) from Covariates and Positive Religious Coping

Predictor Variables	MEANING			BENEV			WORTH		
	Final Beta	R ² Δ	F (df) R ² Δ	Final Beta	R ² Δ	F (df) R ² Δ	Final Beta	R ² Δ	F (df) R ² Δ
<i>Step 1</i>		.075	.96 (9,107)		0.19**	2.84 (9,107)**		.176*	2.54 (9,107)*
Mother's age	.042			-.033			.222		
Marital status	-.161			-.112			.118		
Mother's education	-.013			.054			-.111		
Mother's religion	-.073			-.305**			-.223*		
Child's gender	.017			.196*			-.042		
Child's age at death	-.087			.066			-.033		

Table 4
Prediction of Assumptive World Views (WAS) from Covariates and Positive Religious Coping (continued)

Time since child's death	.134	.273*	.256*
Dummy-coded loss variable 1 ^a	-.298**	-.224*	-.129
Dummy-coded loss variable 2 ^a	-.039	.187	.219*
<i>Step 2 – Pos Rel Cop (RCAS)</i>	.479***	.405***	.482***
	.265***	0.136***	.192***
	27.41	21.42	32.25
	(1,106)***	(1,106)***	(1,106)***
<i>Full Model</i>	3.817	5.19***	6.18
	(10,106)***	(10,106)***	(10,106)***

^a Dummy-coded loss variable 1: homicide = 1, illness = 0, accident = 0; dummy-coded loss variable 2: homicide = 0, illness = 1, accident = 0.

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

Table 5
Prediction of Assumptive World Views (WAS) from Covariates and Negative Religious Coping

Predictor Variables	MEANING		BENEV		WORTH		
	Final Beta	R ² Δ	Final Beta	R ² Δ	Final Beta	R ² Δ	
<i>Step 1</i>		.075	.96 (9,107)	0.193	2.84 (9,107)	.176*	2.54 (9,107)*
Mother's age	.050		-.014		.248		
Marital status	-.151		-.103		.128		
Mother's education	-.064		.020		-.148		
Mother's religion	.072		-.182		-.077		
Child's gender	-.025		.163		-.080		
Child's age at death	-.173		-.002		-.112		
Time since child's death	.047		.206		.179		

Table 5
Prediction of Assumptive World Views (WAS) from Covariates and Negative Religious Coping (continued)

Dummy-coded loss variable 1 ^a	-.232*	-.157	-.046
Dummy-coded loss variable 2 ^a	-.056	.184	.224*
<i>Step 2 – Neg Rel Cop (RCAS)</i>	-.304**	.085**	10.70 (1,106)**
<i>Full Model</i>	.159*	.0216	2.92 (10,106)*
			3.13 (1,106)
			.024
			3.15 (1,106)
			.200**
			2.65 (10,106)*

^a Dummy-coded loss variable 1: homicide = 1, illness = 0, accident = 0; dummy-coded loss variable 2: homicide = 0, illness = 1, accident = 0.

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

Table 6
 Mediation Model: Prediction of Assumptive World Views from Covariates, Grief, and Positive Religious Coping

Predictor Variables	MEANING		BENEV		WORTH	
	Final Beta	R ² Δ	Final Beta	R ² Δ	Final Beta	R ² Δ
Step 1		.075		0.193**		.176*
Mother's age	.040		-.037		.217	
Marital status	-.165		-.120		.108	
Mother's education	-.031		.013		-.157*	
Mother's religion	-.057		-.268**		-.181**	
Child's gender	.020		.204		-.033	
Child's age at death	-.084		.072		-.025	
Time since child's death	.065		.113		.074	
				2.84 (9,107)**		2.54 (9,107)*

Table 6
Mediation Model: Prediction of Assumptive World Views from Covariates, Grief, and Positive Religious Coping (continued)

Dummy-coded loss variable 1 ^a	-.301**	-.230*	-.135		
Dummy-coded loss variable 2 ^a	-.079	.090	.112		
Step 2 – Grief (RGEL)	-.124	-.289**	-.328**	.	
Pos Rel Cop (RCAS)	.445***	.199***	.182***	.325***	.391***
		14.34 (2,105)***	15.26 (2,105)***		23.05 (2,105)
Full Model	.273***	.375***	.375***	5.72 (11,105)***	.427***
		3.59 (11,105)***	5.72 (11,105)***		7.13 (11,105)***

^a Dummy-coded loss variable 1: homicide = 1, illness = 0, accident = 0; dummy-coded loss variable 2: homicide = 0, illness = 1, accident = 0.

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

Table 7
Mediation Model: Prediction of Assumptive World Views from Covariates, Grief, and Negative Religious Coping

Predictor Variables	MEANING		BENEV		MEANING		BENEV		WORTH		
	Final Beta	R ² Δ	Final Beta	R ² Δ	Final Beta	R ² Δ	Final Beta	R ² Δ	Final Beta	R ² Δ	
<i>Step 1</i>		.075		.96 (9,107)		0.193**		2.84 (9,107)**		.176*	2.54 (9,107)*
Mother's age	.050		-.013						.249		
Marital status	-.157		-.117						.111		
Mother's education	-.080		-.018						-.194*		
Mother's religion	.080		-.165						-.056		
Child's gender	-.016		.186*						-.053		
Child's age at death	-.160		.031						-.073		
Time since child's death	-.033		.010						-.055		

Table 7
 Mediation Model: Prediction of Assumptive World Views from Covariates, Grief, and Negative Religious Coping (continued)

Dummy-coded loss variable 1 ^a	-.239*	-.173	-.065	
Dummy-coded loss variable 2 ^a	-.103	.068	.086	
Step 2 – Grief (RGEL)	-.163	-.398**	-.473***	.
Neg Rel Cop (RCAS)	-.248*	.098**	.104**	.138***
		6.25 (2,105)**	7.76 (2,105)**	10.55 (2,105)***
Full Model	.173*	1.99 (11,105)*	.297***	.314***
			4.03 (11,105)***	4.37 (11,105)***

^a Dummy-coded loss variable 1: homicide = 1, illness = 0, accident = 0; dummy-coded loss variable 2: homicide = 0, illness = 1, accident = 0.

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

Appendix A

CONSENT FORM

You are invited to participate in a study, the purpose of which is to increase understanding of the grief reactions of bereaved parents. We hope to gain information that will help future bereaved parents with their grief and which will provide professional caregivers with information that will allow them to be more helpful to bereaved parents.

The study consists of a set of questionnaires that should take no more than one and a half hours to complete. The first questionnaire asks for basic information (age, education, etc.) and contains a few questions about the death of your child. This is followed by questions about grief and coping with grief. Finally, there are a variety of questions about ways of viewing the world, including spiritual outlook. *While some of these may seem incidental to parental grief, they actually do address issues that impact grief and grieving styles, and so we would like you to answer all of them.*

The risks associated with participation in this study are minimal. While it is the belief of this researcher that participation in studies that attempt to increase understanding of grief reactions can be beneficial, we cannot and do not guarantee or promise that you will receive any direct benefits from this study. Furthermore, reflecting upon the death of your child may be upsetting. Should you experience negative effects due to participation in this study, counseling referrals can be provided by Dr. Samuel Marwit. Dr. Marwit is a licensed psychologist in the St. Louis area who has worked extensively with grieving individuals.

Your participation in this study is entirely voluntary and you may withdraw at any time. All materials will be kept strictly confidential. Your materials will be given a code number rather than a name. That will allow us to protect your identity. Materials will be kept in a locked file in the researcher's office. Where two parents from the same family participate, we will treat your materials separately and provide separate return envelopes.

If you have any questions, please contact Dr. Samuel Marwit at the Psychology Department at the University of Missouri – St. Louis by phone (314) 516-5470 or by E-mail (marwits@umsl.edu). Thank you very much.

I HAVE READ THE ABOVE STATEMENTS. I BELIEVE I UNDERSTAND THE PURPOSE OF THE STUDY AS WELL AS ANY BENEFITS AND RISKS. I HEREBY GIVE MY INFORMED AND FREE CONSENT TO BE A PARTICIPANT IN THIS STUDY.

Name of Participant: _____

Signature of Participant: _____

Today's Date: _____

Appendix B

IMPORTANT INFORMATION

About you:

Relationships to your child

- Mother
- Father

Your age

Years

Marital Status

- Single
- Married or equivalent
- Divorced/Separated
- Widowed

Racial/Ethnic identity

- Caucasian
- African-America
- Asian-American
- Other (specify: _____)

Education

- High school
- College
- Graduate (Degree _____)
- Other (specify: _____)

Religious preference (if Christian/Protestant, please specify denomination) _____

About your child:

Gender

- Boy
- Girl

Age at time of death

Years

Time since death

Years or Months

Current ages of surviving children

(Please specify male/female)

- Age M or F
- Age M or F
- Age M or F
- Age M or F

Support group information:

- Have you attended support groups?
- If "yes," how often? _____
- If "yes," how helpful? _____
- Currently in a support group? _____

Please briefly describe the circumstances surrounding your child's death:

Appendix C

World Assumptions Scale

Using the scale below, circle the number that indicates how much you agree or disagree with each statement. Please respond in terms of your current (not past) feelings. Look at the answer key and circle the number that best describes your feelings currently. There are no right or wrong answers. Please respond to every item, if possible. Thank you.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree	
1	2	3	4	5	6	
1. Misfortune is least likely to strike worthy, decent people.	1	2	3	4	5	6
2. People are naturally unfriendly and unkind.	1	2	3	4	5	6
3. Bad events are distributed to people at random.	1	2	3	4	5	6
4. Human nature is basically good.	1	2	3	4	5	6
5. The good things that happen in this world far outnumber the bad.	1	2	3	4	5	6
6. The course of our lives is largely determined by chance.	1	2	3	4	5	6
7. Generally, people deserve what they get in this world.	1	2	3	4	5	6
8. I often think I am no good at all.	1	2	3	4	5	6
9. There is more good than evil in the world.	1	2	3	4	5	6
10. I am basically a lucky person.	1	2	3	4	5	6

11. People's misfortune results from mistakes they have made.
 1 2 3 4 5 6
12. People don't really care what happens to the next person
 1 2 3 4 5 6
13. I usually behave in ways that are likely to maximize good results for me.
 1 2 3 4 5 6
14. People will experience good fortune if they themselves are good.
 1 2 3 4 5 6
15. Life is too full of uncertainties that are determined by chance.
 1 2 3 4 5 6
16. When I think about it, I consider myself very lucky.
 1 2 3 4 5 6
17. I almost always make an effort to prevent bad things from happening to me.
 1 2 3 4 5 6
18. I have a low opinion of myself.
 1 2 3 4 5 6
19. By and large, good people get what they deserve in this world.
 1 2 3 4 5 6
20. Through our actions, we can prevent bad things from happening to us.
 1 2 3 4 5 6
21. Looking at my life, I realize that chance events have worked out well for me.
 1 2 3 4 5 6
22. If people took preventative actions, most misfortune could be avoided.
 1 2 3 4 5 6
23. I take actions necessary to protect myself against misfortune.
 1 2 3 4 5 6
24. In general, life is mostly a gamble.
 1 2 3 4 5 6
25. The world is a good place.
 1 2 3 4 5 6

26. People are basically kind and helpful.
1 2 3 4 5 6
27. I usually behave so as to bring about the greatest good for me.
1 2 3 4 5 6
28. I am very satisfied with the kind of person I am.
1 2 3 4 5 6
29. When bad things happen, it is typically because people have not taken the
necessary actions to protect themselves.
1 2 3 4 5 6
30. If you look closely enough, you will see that the world is full of goodness.
1 2 3 4 5 6
31. I have reason to be ashamed of my personal character.
1 2 3 4 5 6
32. I am luckier than most people.
1 2 3 4 5 6

Appendix D

Revised Grief Experience Inventory

Below are a series of statements related to grieving. Please read each statement and decide how much you agree or disagree with it. Please respond in terms of your current (not past) feelings. Look at the answer key and circle the number that best describes your feelings currently. There are no right or wrong answers. Please respond to every item, if possible. Thank you.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree	
1	2	3	4	5	6	
1. I tend to be more irritable with others since the death of my loved one.	1	2	3	4	5	6
2. I frequently experience angry feelings.	1	2	3	4	5	6
3. My arms and legs feel very heavy.	1	2	3	4	5	6
4. I have feelings of guilt because I was spared and the deceased was taken.	1	2	3	4	5	6
5. I feel lost and helpless.	1	2	3	4	5	6
6. I have had frequent headaches since the death.	1	2	3	4	5	6
7. I cry easily.	1	2	3	4	5	6
8. Concentrating on things is difficult.	1	2	3	4	5	6
9. I feel extremely anxious and unsettled.	1	2	3	4	5	6
10. Sometimes I have a strong desire to scream.	1	2	3	4	5	6

11. Life has lost its meaning for me.
1 2 3 4 5 6
12. I am not feeling healthy.
1 2 3 4 5 6
13. I frequently feel depressed.
1 2 3 4 5 6
14. I have the feeling that I am watching myself go through the motions of living.
1 2 3 4 5 6
15. Life seems empty and barren.
1 2 3 4 5 6
16. I have frequent mood changes.
1 2 3 4 5 6
17. Small problems seem overwhelming.
1 2 3 4 5 6
18. I have lost my appetite.
1 2 3 4 5 6
19. I seem to have lost my energy.
1 2 3 4 5 6
20. I seem to have lost my self-confidence.
1 2 3 4 5 6
21. I am usually unhappy.
1 2 3 4 5 6
22. I am awake most of the night.
1 2 3 4 5 6

Appendix E

Religious Coping Activities Scale

Finally, please read the statements listed below. For each statement, indicate the extent to which it is involved in coping with the death of your child. Use the following scale to indicate your responses (circle your responses).

Not at all	Somewhat	Quite a bit	A great deal
1	2	3	4
1. Trusted that God would not let anything terrible happen to me.			
1	2	3	4
2. Experienced God's love and care.			
1	2	3	4
3. Realized that God was trying to strengthen me.			
1	2	3	4
4. In dealing with the death of my child, I was guided by God.			
1	2	3	4
5. Realized that I didn't have to suffer because God takes on my suffering.			
1	2	3	4
6. Used my faith to guide how I should live.			
1	2	3	4
7. Took control over what I could and gave the rest to God.			
1	2	3	4
8. My faith showed me different ways to handle the problem.			
1	2	3	4
9. Accepted the situation was not in my hands but in the hands of God.			
1	2	3	4
10. Found a lesson from God in the death of my child.			
1	2	3	4
11. God showed me how to deal with the situation.			
1	2	3	4

12. Used my faith to help me decide how to cope with the situation.	1	2	3	4
13. Tried to be less sinful.	1	2	3	4
14. Confessed my sins.	1	2	3	4
15. Led a more loving life.	1	2	3	4
16. Attended religious services or participated in religious rituals.	1	2	3	4
17. Participated in church groups (support groups, prayer groups, Bible studies).	1	2	3	4
18. Provided help to other church members.	1	2	3	4
19. Felt angry with or distant from God.	1	2	3	4
20. Felt angry with or distant from the members of the church.	1	2	3	4
21. Questioned my religious beliefs and faith.	1	2	3	4
22. Received support from the clergy.	1	2	3	4
23. Received support from other members of the church.	1	2	3	4
24. Asked for a miracle.	1	2	3	4
25. Bargained with God to make things better.	1	2	3	4
26. Asked God why it happened.	1	2	3	4

27. Focused on the world-to-come rather than the problems of this world.

1	2	3	4
---	---	---	---

28. I let God solve my problems for me.

1	2	3	4
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29. Prayed or read the Bible to keep my mind off my problems.

1	2	3	4
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