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# THE EFFECTS OF CONTINUING BOND ON POSTTRAUMATIC STRESS DISORDER AND COMPLICATED GRIEF AMONG PARENTS BEREAVED BY THE SUICIDE OF THEIR CHILD

Carol Capitano

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**THE EFFECTS OF CONTINUING BOND ON POSTTRAUMATIC STRESS  
DISORDER AND COMPLICATED GRIEF AMONG PARENTS BEREAVED  
BY THE SUICIDE OF THEIR CHILD**

**by**

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DISSERTATION

Submitted in Partial Fulfillment of the  
Requirements for the Degree of

Doctor of Philosophy  
Nursing

The University of New Mexico  
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## **DEDICATION**

This dissertation is dedicated to my parents, Rosina (1908 to 2006) and John Capitano (1910 to 1996), who taught me the value of education and to follow my dreams, wherever they may take me. To my sister Catherine Alvarez, for her optimism, my sister Marie DeLuca, for her gentle prodding, and my brother-in-law John DeLuca, for his no-nonsense emails of encouragement. Their love and encouragement were invaluable. To my sister Madeleine (1939 to 1961), who taught me that love has no boundaries and is never-ending. To my cousin Joe DiPietra (1936 to 1976), who is loved and remembered for his kindness and gentleness. Lastly, this is dedicated to all my family, friends, spiritual guides, and teachers who have helped me along this path; without their help, this would not have been possible.

This is also dedicated to the hundreds of parents who responded to my research and shared their most sacred moments with me. Without their participation, this research would not have been possible. It is my hope they were helped in some small way and that the knowledge gained will help other parents through the grieving process.

## ACKNOWLEDGMENTS

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Dr. Hensley has been my mentor and supporter since 2001. She has encouraged me in all aspects of my professional life and has been there to support and inspire me. Without her example of scholarship and excellence, I would not have pursued this degree, nor would I be the clinician I am today.

It is also with pleasure I thank and acknowledge the numerous people in the suicide research community who have offered their support for this study. Although the names are too numerous to mention, I would like to acknowledge the various organizations and websites:

American Association of Suicidology

American Foundation for Suicide Prevention

Parents of Suicides

Survivors of Suicide Support Groups: Albuquerque, New Mexico, and United States

Suicide Awareness Voices of Education

Suicide: Finding Hope

Survivors of Bereavement by Suicide: United Kingdom

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**ABSTRACT**

There is a paucity of research on the effect of parents maintaining a continuing bond with their child who died by suicide. Furthermore, there is a gap in the research literature regarding differences among the parental continuing bond, posttraumatic stress, and complicated grief between parents who directly witnessed the suicide or found the body of their child and parents who were notified of the suicide by indirect methods (police, clergy, family, media, etc). This quantitative study included a convenience sample of 219 participants (response rate = 63.29%) who self-identified as parents whose child died by suicide 6 or more months prior to the initiation of the study. Participants were predominately White (85.8%), married (67.1%), female (91.3%), and mostly between the ages of 51 and 60 (44.7%). Data were collected on the Internet using the REDCap software program. The survey, which was completed anonymously, contained



demographic information and three questionnaires: The Impact of Event Scale–Revised (IES-R), 22 items (0-88); Inventory of Complicated Grief (ICG), 19 items (0-76); and Continuing Bond Scale (CBS), three items (0-15). The mean score for the IES- R was 34.75, mean score for ICG was 33.03, and mean score for CBS was 6.28. The results suggest that the higher the parent’s continuing bond was, the higher were the levels of posttraumatic stress disorder and complicated grief. There were no differences between the group who observed the suicide or found the body and the group who was notified by other methods.

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## **CHAPTER 1**

### **INTRODUCTION**

The lives of parents revolve around their children. Parents begin planning for the child's future, sharing hopes and dreams, prior to the birth of the child. After the birth, they remain consumed in the lives of their children until one day, in an instant, their role changes with the tragic and unexpected suicide of their child. Death is an accepted part of the human existence except when it is the death of a child. A child who precedes the parent in death violates the natural order of life and death. The parents are forced to cope with the void, sorrow, and emotional turmoil that are a part of their after-death existence.

The phenomenon of death engages a myriad of emotions, such as grief, anger, and guilt. Parents bereaved by the sudden and violent death of their child often feel bewildered and confused. The suddenness of the death leaves many questions unanswered, as the parents are confronted with struggling through the emotional trauma without definitive answers. The bereaved parents are burdened with questions surrounding the suicide as they struggle with the possibility they may have contributed to the death of their child or, at the very least, failed to prevent it. Consequently, the death produces an intense emotional experience of grief and overwhelming emotional pain resulting from the sudden and traumatic severing of the bond between the parent and the child. The severing of the bond leaves the parent devastated by the enormity of the grief that is complex and all encompassing. The death challenges the core beliefs and values of the family. Each death irreparably changes the family unit, leaving the members to struggle to regain homeostasis within the family structure.

This dissertation study examines the psychological grief response of parents bereaved by the suicide of their child. The primary purpose of this study was to determine whether the levels of posttraumatic stress disorder (PTSD) and complicated grief are affected when parents maintain a continuing bond with the deceased child. It is anticipated that the data will be useful to clinicians providing services to similar populations, the general population, and postintervention programs following the suicide.

### **Background**

The effect of child suicide on parents, family, and friends has been explored by researchers since the 1970s. Historically, thanatologists researched the various dimensions of suicide, including guilt, grief, depression, and posttraumatic stress. Parental role changes, societal expectations and support, marital discord, and somatic complaints have also been investigated as they related to parents bereaved by the suicide of their child. These studies explored the devastating consequences of parental bereavement following the sudden and traumatic death of a child from suicide, homicide, and accidents. Furthermore, there have been more than 2,000 published books and articles dedicated to researching bereavement and the human response to loss (Neimeyer & Hogan, 2004). However, the published research does not sufficiently examine the bereavement responses for a subcategory of parents affected by the suicide of their child through witnessing the event or discovering the body. Although the percentage of parents found within this subcategory is unknown, based on the number of youth suicides within the past 10 years, it is likely to be a significant number.

The nature of suicide is controversial and sparks ethical issues among the general population, as well as health care communities. For instance, physician-assisted suicide is

intensely debated as a “right to die,” whereas political or religiously based suicide spreads terrorism, fear, animosity, and rage among the citizens in a global society. National and international public health communities acknowledge an upward suicide trend among adolescents. Worldwide, suicide is the third leading cause of death among individuals aged 15 to 44 years and the second leading cause of death among those between the ages of 15 and 19 years. In European countries suicide accounts for 14% of male deaths between the ages of 10-24 (Patton, et. al, 2009).

Between 2003 and 2004, national suicide rates among adolescents aged 10 to 18 years increased 18%, reflecting the highest suicide increase among this age group in 15 years (Lubell, Kegler, Cosby, & Karch, 2007). In 2007, suicide was ranked 11<sup>th</sup> as a cause of death for all age groups in the United States, resulting in more than 34,500 deaths (Heron et al., 2009). Moreover, it is ranked as the third leading cause of death among adolescents and young adults, and in New Mexico, it is the second leading cause of death among those aged 10 to 24 years (Kung, Hoyert, & Murphy, 2008).

The U.S. Surgeon General responded to the youth suicide rates by mandating governmental agencies to develop child suicide prevention and educational programs (U.S. Department of Health and Human Services, 1999). Responding to “The Surgeon General’s Call to Action to Prevent Suicide,” the National Institute of Mental Health funded suicide prevention programs, and Healthy People 2010 identified as Goal 18: “To improve mental health and ensure access to appropriate, quality mental health services.” Healthy People Objective 18-1 is to “Reduce the suicide rate to 5 suicides per 100,000 population” (U.S. Department of Health and Human Services, 2000a, Objective 18, p. 12-13).

Although the cost of human life and suffering is not quantifiable, scientists have estimated the cost of three variables—medical costs, future earnings, and quality of life—that provide insight into the financial impact of suicide on society. In 2000, the estimated lifetime cost of self-inflicted injuries for survivors was approximately \$33 billion. This includes \$1 billion for medical treatment and \$32 billion for lost productivity (Corso, Mercy, Simon, Finkelstein, & Miller, 2007). This estimate excludes survivor medical costs, financial government assistance, a decline in work productivity, and absenteeism that occurs in the aftermath of a suicide.

### **Bereavement**

Families and society in general, struggle to understand premature death, particularly the death of a child. However, when the death is associated with a suicide, the bereavement process becomes complicated and more traumatic. In the early years of bereavement research, it was suggested that the grief experienced by survivors of suicide was more complicated than that of survivors of other sudden and traumatic deaths. An early bereavement study (Kovarsky, 1989) researched parental survivors of suicide by comparing the parental grief responses of two groups of parents bereaved by either accidental deaths or suicide. The level of loneliness and grief were compared between the two groups. The survivors of suicide participants experienced grief and loneliness that increased over time, whereas parents bereaved by an accidental death found that their grief and loneliness decreased over time.

Factors contributing to the loneliness of survivors of suicide may be related to the societal responses to the suicide. For instance, researchers who placed factitious newspaper accounts of young girls who purportedly died from a terminal illness, drug

overdose, or hanging discovered that the community was less sympathetic to parents bereaved by suicide and tended to blame the parents and label the child and the family as psychologically unstable (Rudestam & Imbroll, 1983). Data from similar studies supported the general belief by society that families were perceived as disturbed and responsible for the deaths of a child who died by suicide (Range & Goggin, 1990). Furthermore, parents bereaved by suicide perceived less social support when compared with parents bereaved by other deaths (Feigelman, Gorman, Beal, & Jordan, 2008; Murphy, Johnson, Wu, Fan, & Lohan, 2003; Thornton, Whittemore, & Robinson 1989). Feelings of guilt and self-blame (Knieper, 1999) were more prominent in parents bereaved by suicide compared with parents bereaved by other traumatic deaths (Miles & Demi, 1991; Reed & Greenwald, 1991). Furthermore, parental survivors of suicide are more often preoccupied with feelings of abandonment, rejection, shame, and separation anxiety than parents bereaved by other forms of sudden and traumatic deaths (Reed, 1998; Silverman, Range, & Overholser, 1995).

Parents bereaved by suicide are plagued by intense, perpetual, and conflicting emotions surrounding the suicide of their child. The anguish felt by parents is accompanied by feelings of sorrow, grief, anger, abandonment, anxiety, and shame. These emotions are compounded by the perceived lack of social support, rumination surrounding the circumstances of the suicide, fear, and embarrassment. These emotions and circumstances surrounding the death complicate the grieving process and may lead to a diagnosis of PTSD for the bereaved.

## **Posttraumatic Stress Disorder**

PTSD is the result of a traumatic and life-threatening event. Initially, this diagnosis applied to veterans returning from war. However, as scientists began to expand their study populations, they discovered that civilians who experienced catastrophic events also exhibited symptoms consistent with PTSD. Additional data included trauma symptoms in individuals who not only feared for their own individual safety but also witnessed a life-threatening event or received information associated with a traumatic and violent death of a loved one (American Psychiatric Association [APA], 1987).

As the study of bereavement research evolved, thanatologists expanded data collection to include a wide range of deaths and sample populations. They began to compare and contrast parental bereavement responses to the death of a child by focusing on specific types of death. Among the responses investigated were the parental reactions to accidental, unexpected, sudden, and traumatic deaths. As a result, behavioral patterns and psychological sequelae associated with PTSD began to emerge more frequently when deaths were sudden, unexpected, and traumatic.

Multiple studies researching bereavement responses to a sudden and traumatic death have found posttraumatic stress symptoms to be present in the grieving parent. The clusters of symptoms have been found to be more prominent in parents bereaved by suicide compared with parents bereaved by an accidental death (Dyregrov, Nordanger, & Dyregrov, 2003). Mothers tend to experience more posttraumatic stress symptoms following a traumatic death compared with fathers (Murphy, Braun et al., 1999). Furthermore, when the bereaved experience flashbacks, traumatic mental images, and

nightmares, they report feeling disoriented, and functionality is diminished for the remainder of the day (van Dongen, 1991).

### **Complicated Grief**

Grief is a normal response to a loss (Freud, 1918/1954). It is defined as complicated grief when a cluster of symptoms become overwhelming, and the individual is incapable of returning to prebereavement levels of functionality (Prigerson, Frank et al., 1995). Contributing factors of complicated grief are traumatic and sudden deaths, previous psychiatric disorders, previous unresolved grief, phobias, and unresolved issues associated with the deceased (Worden, 2002).

Bereavement researchers, Prigerson, Frank et al. (1995), categorize the cluster of symptoms into separation distress and traumatic distress. Separation distress manifests when there is a pathological preoccupation with the deceased, including intrusive thoughts. Traumatic distress occurs when the assumptive world of the individuals have been challenged. Their sense of control and safety has been decimated, and they have lost their sense of self and purpose. Intense anxiety associated with the separation is core to this concept (Jacobs & Prigerson, 2000). Although there may be similarities between PTSD and complicated grief, there are major differences between the two concepts. The central theme of complicated grief is separation anxiety, whereas PTSD involves trauma and threat of life or death for self or a loved one.

### **Continuing Bond**

The concept of maintaining a continuing bond with the deceased has been documented in bereavement research. It is a phenomenon that describes manifestations and behaviors that occur between the survivor and the deceased. In early bereavement



research, it was posited that the bereaved must sever all ties with the deceased to complete the grieving process. A continued bond with the deceased was believed to have negative outcomes for the bereaved and inhibited the resolution of the death (Freud, 1918/1954).

A gradual paradigm shift began to occur following Bowlby's (1961) research that suggested in certain relationships, bonds are so strong that death does not result in a dissipation of those bonds. In contrast to his contemporaries, he posited that the continuing bonds may lead to a healthy bereavement outcome. Although he acknowledged there is a potential for the bond to become pathological, Bowlby (1963) was convinced of a stronger, positive component to maintaining a continuing bond with the deceased. His theories and research led other thanatologists to acknowledge that a "failure to recognize that a continuing sense of the dead person's presence, either as a constant companion or in some specific and appropriate location is a common feature in healthy mourning and has led to much confused theorizing" (Bowlby, 1980, p. 100). Other researchers supported the concept of a continuing bond, stating, "The persistent belief that the person is not really lost" assisted the bereaved with the grieving process and a healthy resolution to the death (Krupp & Klingfeld, 1962, p. 224). These researchers contributed to the paradigm shift that suggested detachment from the deceased was not necessary for healthy grieving. Their assumptions were contrary to contemporary theories of the time. Researchers who supported this paradigm shift found that maintaining a bond with the deceased resulted in transforming the death from a negative experience into a positive experience of self-growth.

Worden (2002) was an early proponent of continuing bonds. He originally posited in his fourth task of mourning that the bereaved must sever the bonds with the deceased to resolve the death. However, in a subsequent, revised version of his theory, he suggested that the mourner “find a place for the deceased that will enable the mourner to connect with the deceased but in a manner that will not preclude him or her from going on with life” (p. 35).

Klass, Silverman, and Nickman (1996) published a controversial book that supported continuing bonds in parents of deceased children as being helpful in resolving the deaths of their children. They also interviewed children whose parent died and discovered that these bonds remained strong after death. The children received support and comfort from maintaining the bonds with their deceased parent. The authors rejected the premise of detachment from the bereaved and supported continuing bonds as a healthy and normal aspect of bereavement.

### **Survivors of Suicide**

Thousands of parents experience the overwhelming burden of grief when their children die suddenly and sometimes violently from suicide. In 2010, suicide ranked third as cause of death for 15- to 24-year-olds and 10<sup>th</sup> for all age groups, resulting in a national total of 38,364 suicides, compared with 28,322 suicides in 2000. In 2010, the age group of 15- to 24-year-olds comprised 14.1% of the population as a whole. This youth and young adult group resulted in 12% of all suicides (McIntosh, 2010). Although the exact number of individuals bereaved by suicide is unknown, conservative estimates suggest there are between six and 10 survivors who mourn each suicide. In 2010, the number of suicides resulted in at least 230,184 family members bereaved from suicide.

From 1986 through 2010, the total number of suicide deaths resulted in approximately 4.78 million survivors mourning the loss of loved ones.

The following 2010 suicide rates are based on the rate per 100,000 population. Although Native Americans comprise 0.9% of the U.S. population, the rate of suicide is 11.0. The rate for non-White males is 9.4, and the rate for African American males is 8.7, followed by White females, at a rate of 5.9; the rate for Asian/Pacific Islanders is 6.2. Hispanics represent 16% of the population, and their rate of suicide is 5.3. Lastly, the rate is 2.5 for non-White females and 1.8 for African American females (McIntosh, 2010; U.S. Census Bureau, 2010).

The suicide of a loved one is complicated by the emotionally charged responses that stem from religious beliefs, social-cultural mores, and ideals that are imprinted on to the human psyche. Families struggle with the realization their loved one was compelled to act in a deliberate manner that resulted in death. This irreversible and finite act has severe, long-term consequences for families and loved ones.

### **Theoretical Framework**

Researchers have proposed attachment theory as a viable theoretical framework for bereavement because attachment theory encompasses maintaining a continuing bond with the deceased (Field, Gao, & Paderna, 2005). Bowlby's (Bowlby, 1980; Fraley & Shaver, 2002) theory supports maintaining a continuing bond with the deceased, as an innate response to the death. It is to be a temporary separation by the bereaved (Archer, 1999; Bowlby, 1980). Attachment theory supports the constellation of grief reactions that manifest as a direct result of individual differences in parental coping styles. These specific skills are developed as children based on the parent-child family of origin

relationship, that is, attachment styles (Bowlby, 1980; Field, Gal-Oz, & Bonanno, 2003; Stroebe & Schut, 1999). This style continues into adult bereavement, and because death is final and irrevocable, the bereaved struggle with the new reality and adapt skills to cope with the permanent loss (Bowlby, 1980). One method of coping with the loss is through maintaining a continuing bond with the deceased child.

In conclusion, research in this area will contribute to the knowledge that lends itself to questions of bereavement. Maintaining a connection with the deceased may actually be therapeutic for the bereaved (Baker, 2001). Although there are some researchers who believe that continuing bond research has not consistently been shown to be therapeutic for the bereaved (Bonano & Kaltman, 1999), other thanatologists continue to pursue the positive relationship between continuing bonds with the deceased and a healthy bereavement outcome.

### **Statement of the Problem**

There is a gap in the literature related to the effects of maintaining a continuing bond with the child who died by suicide when parents witnessed or when parents found their child's body. Furthermore, no studies were found during the literature review that compared the direct observation group (witnessed the suicide or found the body of their child) with the group of parents who were informed of the suicide by other methods (police, clergy, family, media).

Previous studies have examined the devastating consequences of parental bereavement following the sudden and traumatic death of a child from suicide, homicide, and accidents. However, an extensive search of the literature identified only three studies that researched the response of a family member after discovering the body of a suicide

family member (Andress & Corey 1978; Sethi & Bhargava, 2003; van Dongen, 1990, 1991). Andress and Corey (1978) examined the records of 1,092 suicides in all age groups in California between 1960 and 1974. They found that spouses (32%) discovered the majority of suicides, followed by children (7.2%) discovering the bodies of died-by-suicide parents, and parents (5.4%) who found the body of their died-by-suicide child. The remainder of those who died by suicide (55.4%) were discovered by siblings, other family members, acquaintances, and first responders. Sethi and Bhargava's (2003) study consisted of 26 children from India whose family members died by suicide. The children experienced psychiatric disorders such as major depressive disorder, PTSD, and panic disorder at higher rates than a control group. In this study, the children were clearly identified as discovering the body, in contrast to van Dongen's research (1990, 1991) where it was unclear which family member discovered the body. The qualitative research conducted by van Dongen (1990, 1991) consisted of 35 family members bereaved by the suicide of a family member. The majority of the participants experienced depression (57%) and/or PTSD (63%), and required medical care (54%) as a consequence to the suicide. In addition, 11% of the respondents reported PTSD symptoms associated with finding the body of the died-by-suicide family member. Although the author identified the respondents as four women, the relationship to the deceased is unknown.

Although research has evaluated the psychological effects of parental grief due to suicide, there is a dearth of literature that focuses on parents' bereavement related to the suicide of their children aged 10 to 18. In the study conducted by Séguin, Lesage, and Kiely (1995), the authors compared bereavement responses of parents as part of a larger study that evaluated the deaths of men between the ages of 18 and 35 years following a

suicide or died as a result of a motor vehicle crash. The studies of van Dongen (1990) and Andress and Corey (1978) do not individually categorize responses as those of parents bereaved by suicide but instead integrate parental responses into the aggregate data. It is unclear whether responses have changed since these early studies because subsequent research has not been conducted. Furthermore, there is a paucity of research within the bereavement and suicide literature that investigates parental responses following the witnessing of a suicide or discovering the body of their child. Finally, the majority of parental bereavement research from suicide has been obtained by comparing parental responses among a variety of different types of sudden deaths, for example, accidental, homicidal, sudden infant death syndrome (SIDS), and suicide (Maple, 2005). The aggregated data usually present a comparison of the results found among the different types of deaths. However, the data are not individualized into the categories proposed in this study.

### **Significance of the Study**

Suicide is a public health issue recognized by the World Health Organization, U.S. Surgeon General, National Institute of Mental Health, and Healthy People 2010 and 2020. Researchers conservatively estimate a staggering 4.78 million U.S. survivors of suicide the last 24 years (1986-2010). In New Mexico, there is a conservative estimate of more than 59,400 survivors of suicide grieving the loss of a loved one from suicide during the same 24 years (McIntosh, 2010). Considering the number of survivors bereft by suicide, there is a scarcity of literature exploring the subcategory of parents (direct observation of the suicide) who have survived the loss of their child.

Thanatologist pioneer Kubler-Ross emphasized the need to build on already established bereavement research to investigate and refine observations for more detailed and concise data analysis (Kubler-Ross & Kessler, 2005). This research built on the current data and investigated specific behaviors associated with the subcategory of parents who survive the suicide of a loved one. Surviving family members require timely and appropriate interventions to minimize the psychological and somatic effects that occur from the trauma. Additional research specifically focused on parents is required to evaluate the psychological effects of suicide on the subcategory of parents who witness the suicide or discover the body. Furthermore, traumatic circumstances surrounding this population may result in a distinctly different bereavement experience (Worden, 2002).

### **Purpose of the Research**

The purpose of the study was to explore the effects of a continuing bond with a death-by-suicide child among parents who had a direct observation of the suicide and parents who were notified by indirect methods.

### **Hypotheses and Research Question**

This study explored whether a relationship existed between the level of parental continuing bond with the child who died by suicide and the parent's levels of PTSD and complicated grief. Secondly, it explored whether the level of a parent's continuing bond would predict their level of parental posttraumatic stress and complicated grief. Lastly, it examined whether the level of continuing bond was different or not for parents who experienced the direct observation (witness or find the body) of their child who died by suicide, versus parents notified by indirect methods (police, family, media, other methods) of the suicide.

The research consisted of four hypotheses and one research question:

- H<sub>1</sub> Parents who maintain a higher level of continuing bond will experience lower levels of posttraumatic stress symptoms following the suicide of their child than do parents who maintain a lower level of continuing bond.
- H<sub>2</sub> Parents who maintain a higher level of continuing bond will experience lower levels of complicated grief following the suicide of their child than parents who maintain a lower level of continuing bond.
- H<sub>3</sub> The level of parental posttraumatic stress following the suicide of their child is predicted by parental continuing bond.
- H<sub>4</sub> The level of parental complicated grief following the suicide of their child is predicted by parental continuing bond.

There was also one research question:

What are the differences between continuing bond scores of parents who experienced the direct observation of the suicide of their child and parents notified of the suicide by indirect methods (by police, family, media, or other method)?

### **Nature of the Study**

This quantitative study explored the psychological responses of parents bereaved by suicide. Participants were recruited from a variety of Internet bereavement and suicide-related websites, chat rooms, electronic discussion groups, psychology research websites and chat rooms, and a community-based website (Facebook). Letters were mailed to several organizations requesting that the study be posted on their website or



advertised through community emails or newsletters. Notification and a summary of the research were sent to mental health professionals via electronic discussion groups, requesting that the research be shared with appropriate clients (Appendix A).

Participants completed three questionnaires and answered demographic questions. The questionnaires evaluated individual responses to traumatic stress, complicated grief, and continuing bonds.

### **Definition of Terms**

For the purposes of this study, the following conceptual and operational definitions are defined:

*Bereavement*: The state of having suffered a loss (Worden, 2002). It is the objective state of experiencing a death (Stroebe, Hansson, Stroebe, & Schut, 2004).

*Complicated grief*: A bereavement response that includes chronic, delayed, exaggerated and/or masked grief reactions (Worden, 2002). Symptoms may include constant thoughts of the deceased or of death, avoiding triggers that may result in painful memories of the deceased, or searching for the deceased (Horowitz et al., 1997; Prigerson et al., 1995). The Inventory of Complicated Grief questionnaire (ICG) is a 19-item, Likert scale developed by Prigerson, Maciejewski et al. (1995). It was used to measure complicated grief in the current study.

*Continuing bond*: The survivors' ability to maintain a bond with the deceased through the grieving process that strives to integrate the past relationship with the deceased into their current lives. Examples of healthy inclusion may be exhibited

through dreams, talking to the deceased, believing they are being watched and protected by the deceased, keeping items, and visiting their graves (Klass et al., 1996). The Continuing Bond Scale (CBS) was used to measure the presence of continuing bonds. It is a three-item, Likert scale developed by Boelen, Stroebe, Schut, & Zijerveld (2006).

*Direct observation of the suicide:* Direct observation of the suicide includes (1) witnessing the suicide by being in close proximity to the suicide, thereby visually seeing or hearing when the suicide occurred, including through a communication device (telephone, cell phone, or text messaging); or (2) discovering the body of the child prior to first responder or medical intervention.

*Grief:* The personal and normal response to a loss that is experienced psychologically, socially, and physically (Worden, 2002).

*Indirect methods:* Parents informed of the suicide by law enforcement, family members, media, or some other indirect method.

*Mourning:* The cultural and/or public display of grief through one's behaviors, which occurs following a loss (Worden, 2002). It includes expressions and behaviors of bereavement that are defined by social and cultural norms (Stroebe et al., 2004).

*Parental survivors of suicide:* The self-identified parents of the died-by-suicide child. The term is limited to those individuals who are considered the biological, adoptive, or foster parents or other relatives responsible for rearing the deceased child.

*PTSD*: A common psychiatric anxiety disorder that develops after exposure to a terrifying or life-threatening event that is associated with grave physical harm or threat to an individual. Family members of the deceased may also develop the disorder when hearing of the trauma that occurred to their family member.

Symptoms include “(1) reexperiencing the traumatic event through intrusive thoughts, flashbacks, and nightmares, (2) avoidance of discussion, feelings, and thoughts associated with the trauma, a sense of detachment, restricted range of affect, foreshortened future, (3) hypervigilance, difficulty sleeping, irritability, rage, decreased concentration and an exaggerated startle reflex” (APA, 2000, pp. 209-210). The questionnaire used to measure symptoms associated with this disorder was The Impact of Event Scale–Revised (IES-R), developed by Weiss and Marmar (1997). This 22-item, Likert scale assesses clusters of symptoms (re-experiencing, hypervigilance, and avoidance) that are consistent with a diagnosis of PTSD.

*Postvention*: Supportive activities that assist family and friends to cope with the aftermath of the suicide of a loved one. The goal is to assist the survivors to grieve the loss and live productive lives (Shneidman, 1971).

*Suicide*: The “the act of killing oneself intentionally” (Agnes, 2002, p. 1432).

*Uncomplicated grief*: Normal grief experience common after a loss (Worden, 2002)

### **Assumptions**

The following assumptions were made for this study: (1) some parents who witness or discover the body of their child develop PTSD and/or complicated grief; (2)

some parents maintain a continuing bond with their child postsuicide; (3) the instruments conceptually measure and reflect levels of parental PTSD, complicated grief, and continuing bond and are valid measurements of these concepts; (4) the levels of PTSD and complicated grief are magnified by a traumatic death.

Although the participants may not retain an exact recollection of the painful and traumatic events surrounding the suicide, it is assumed their responses are honest and sincere.

### **Conclusion**

Parents of children who died suddenly and traumatically have a propensity to develop PTSD and complicated grief. Although PTSD and complicated grief may be common dominators for these parents, suicide complicates the mourning process by the very nature of the death. The enormity of the loss may be magnified in parents who witness the suicide or discover the body of their child. Unfortunately, the extent to which this occurs is unknown because research investigating this subcategory of parents is nonexistent. A limitation of previous bereavement studies is that the data were collected from participants in support groups, widows, widowers, and college students. Additionally, research associated with parental bereavement is often a comparison of sudden and traumatic deaths, accidental deaths, homicides, suicides, and SIDS deaths. This study attempted to minimize the limitations found in the bereavement literature by focusing on this subpopulation and targeting only the parents bereaved by suicide.

## **CHAPTER 2**

### **REVIEW OF THE LITERATURE**

There is a universally accepted perception of the natural order of death, that is, parents die before their children. However, when the death of a child precedes that of the parent, the effects are devastating and long lasting. When death comes too soon, suddenly, traumatically, and unexpectedly, parents are overwhelmed by a pervasive and enduring sense of sorrow. The basic tenets on which parents build the foundation of their assumptive world are decimated, and the grief they experience spans every aspect of their lives: psychologically, socially, physically, and spiritually. The trauma of the death results in dramatic changes in the parental role, and the assumptive world has shifted from a predictive and benevolent world into a world of chaos and pain. The intensity of the grief often diminishes the parent's ability to fulfill their parental roles and responsibilities to any remaining children. Consequently, the family unit can fall into chaos and struggles to regain homeostasis as family members learn to adjust to their new roles (Murphy, Johnson, & Lohan, 2003; van Dongen, 1991).

This section will provide an extensive review of the bereavement literature focusing on the multidimensional responses of parents bereaved by suicide. The psychological response to parental bereavement is limited to exploring the development of PTSD in response to a sudden and traumatic death. Also included are the changes in family dynamics and parental conflicts that arise as parents strive to regain homeostasis in a chaotic environment. The evolution of the concept of grief and bereavement are discussed, progressing from the Freudian psychoanalytical concept of detachment from

the deceased to the contemporary concept of maintaining a continuing bond with the deceased. In addition, Bowlby's Attachment Theory will be discussed, as it serves as the theoretical framework for this research.

### **Brief Overview of Suicide**

The emotionally charged responses to suicide are molded by religious beliefs and by social and cultural mores that are imprinted onto the human psyche. The nature of suicide is controversial and sparks ethical considerations among the general population as well as health care communities. Physician-assisted suicide is intensely debated as a "right to die issue," while geopolitical suicide spreads fear, animosity, and rage among the citizens in a global society. Filicide-suicide, familicide-suicide, murder-suicide, and suicide by police are found in contemporary headlines, leaving family members and society confused, bewildered, and horrified by the deaths.

Scientists have explored the phenomenon of suicide and its ramifications on the family unit, individuals, and global society since the 1900s. The increased awareness of suicide and its impact on society are reflected in national and international public health policy (World Health Organization, 2001). Public health officials acknowledge that increasing suicide trends are a worldwide phenomenon and have responded by developing policies on suicide prevention and postvention to educate its citizenry. In 1999, the U.S. Surgeon General responded to the staggering rates of youth suicide by mandating governmental agencies to develop youth suicide prevention and educational programs (U.S. Department of Health and Human Services, 1999). Responding to "The Surgeon General's Call to Action on Suicide Prevention," the National Institute of Mental Health funded suicide prevention programs, and Healthy People 2010 and 2020

(U.S. Department of Health and Human Services, 2000a, 2000b) listed suicide prevention as one of its goals.

Notwithstanding the best efforts of various organizations, suicide remains the third leading cause of death for American youth between the ages of 15 and 24 (Kung et al., 2008). In an 8-year period (1999-2007), 11,991 youth between the ages of 10 and 18 years completed a suicide (National Center for Health Statistics, 2007).

Unfortunately, Healthy People 2010 did not meet the goal of reducing the suicide rate of 4.8 per 100,000 by 2010. Rather than a decrease in the suicide rate, there was a statistically significant 3.8% increase in the age-adjusted suicide rate from 1999 to 2005 (Sondik, et. al, 2010). Furthermore, the Centers for Disease Control and Prevention (CDC, 2011) reported that the suicide rate increased by 7.6%, or from 10.5 to 11.3 per 100,000, from 1999 to 2007. In 2007, the suicide rate for the American Indians (11.5 per 100,000) and the Alaska Native (13.5 per 100,000) was 2½ times higher than the African American non-Hispanic population (5.1 per 100,000).

This trend continued to increase among the White non-Hispanic population, with rates of suicide rising from 12 per 100,000 in 1999 to 13.5 per 100,000 in 2007. The rate of suicide remained higher for males in 2007 (18.4 per 100,000) than females (4.7 per 100,000). Overall, the 2007 suicide rates trended upward from the 1999 data for both males (17.8 per 100,000) and females (4.0 per 100,000; CDC, 2011).

The goal to reduce the suicide rate was continued in Healthy People 2020. The goal is listed as MHMD-1(Mental Health and Mental Disorders): “Reduce the suicide rate to 10.2 suicides per 100,000. The baseline suicide rate for 2007 was “11.3 suicides per 100,000” (U.S. Department of Health and Human Services, 2010, p. 226).

McIntosh (2010) estimated that between the years 1983 and 2007, 4.6 million family and friends mourned the loss of a loved one due to suicide. In 2007 alone, there were approximately 207,588 survivors of suicide.

Freud (1917/1957) characterized suicide from a psychoanalytical perspective. The German translation for suicide is “self-murder.” He believed this self-loathing occurs when the individual experiences ambivalent feelings following the loss of a love object. Hostility and homicidal thoughts toward the love object are repressed and instead directed toward the self. Freud further hypothesized that psychopathology originates in melancholia and culminates with self-loathing and self-destruction. The conflicting emotions cause the individual extreme, agonizing mental pain, or “psychache” (Shneidman, 2004, p.8) which becomes the impetus for suicide

### **Parental Bereavement**

Bereavement is considered a response to a death that is influenced by social and cultural mores, as well as the personal experiences and values of the individual. However, parents grieving the death of a child experience grief reactions more intensely due to the untimely death. They are bombarded with feelings of “despair, guilt, anger, and helplessness” (Rando, 1993 p. 619). They struggle to regain control of their environment, adjust to their new identity, and bear the “monumental violations of the assumptive world” (Rando, 1993, p. 619). Grieving is a fluid process that has a multidimensional effect on the individual. It affects the individual emotionally, psychologically, physically, socially, and spiritually. The following section will discuss the multidimensionality of parental grief in detail.



Bereaved parents experience a deep sense of sorrow that is devastating and casts a dark shadow over their lives, perhaps lasting a lifetime. They are overwhelmed with intense feelings of loss and confusion, alternating with numbness and disbelief. The emotional responses are similar to the reaction of other traumatic deaths: shock, disbelief, confusion, and numbness. However, unlike other deaths, the bereaved parents are obligated to prematurely bury their child along with the projected hopes, dreams, and aspirations for the deceased child (Rando 1993). They are besieged with intense grief (Murphy, Johnson, & Lohan, 2003), unexpected emotions, and expectations that challenge their core beliefs and assumptions (Janoff-Bulman, 1992). In the face of the immense loss, and while they are processing their grief, parents are expected to continue with the daily expectations of parenting the remaining children and other day-to-day responsibilities.

The multidimensionality of this grief process influences every aspect of the lives of bereaved parents. In addition to affecting each domain, often marital relationships are compromised (Murphy, Johnson, & Lohan, 2003), as parents struggle to adjust to their new roles. Often, the grief and stress are unbearable, and bereaved parents may develop physical symptoms associated with the grieving process. These symptoms in turn affect their ability to work and interfere with their daily activities (Murphy, Lohan, et. al., 1999; Hall & Irwin, 2004).

## Emotional Response

Emotions are “a conscious mental reaction (anger, fear), subjectively experienced as strong feelings, usually directed towards a specific object typically accompanied by physical and behavioral changes in the body” (Agnes, 2002, p. 466).” Bereaved parents experience an array of emotional responses that occur in varying degrees. Grief, guilt (Fielden, 2003; Wijngaards-de Meij et al., 2005; Miles & Demi, 1992), shame, anger, fear, (Arnold, Gemma, & Cushman, 2005; Bailey, Kral, & Dunham, 1999), and blame (Dyregrov, et. al., 2003) are emotions frequently voiced by bereaved parents. In addition, parents bereaved by suicide experience increased feelings of rejection (Arnold et al., 2005; Bailey et al., 1999), abandonment (Arnold et al., 2005; Bailey et al., 1999), guilt (Miles & Demi, 1992), compared with parents bereaved by natural causes and accidental deaths (Murphy, Johnson, Lohan, 2003). The overwhelming sense of guilt and self-blame may result from the perception that the parents contributed to the child’s death, “failed to live up to [societal] expectations, violated a societal standard” (Miles & Demi, 1992, p. 205), or were incapable of preventing their child’s death due to their incompetence (Dyregrov et al., 2003, Worden, 1982, 1991, 2002).

The culmination of emotional intensity, overwhelming grief, and stress may lead to fears of self-destruction or suicidal ideation (Worden, 1982, 1991, 1992). Qin and Mortensen (2003) emphasized the possibility of parental suicide while researching parents bereaved by suicide. They obtained demographic and psychosocial data on parents and children from four Danish National Registers. The longitudinal data extracted between 1981 and 1997 included 18,611 suicides. The researchers explored the relationship between the risk of suicide in parents and a history of psychiatric

hospitalizations in the children prior to the child's suicide. Bereaved mothers were at highest risk for suicide when the child was younger than 18 years of age and within the first post-suicide month. However, suicidal ideation may persist beyond the fifth post-suicide year (Li, Laursen, Precht, Olsen, & Mortensen, 2005). Although a proclivity toward suicidal ideation exists among survivors of suicide (Dyregrov et al., 2003; Latham & Prigerson, 2004; van Dongen, 1990), it is more pronounced in parents with a history of alcoholism, compounded by suicide in first- or second-degree relatives (Roy, 2000).

Although the bereaved parent may not outwardly voice feelings of guilt, it can be surmised from expressions of "self-blame, remorse, regret, repentance, responsibility, culpability, fault, onus, or penitence" (Miles & Demi, 1992, p. 205). Additionally, bereaved parents of a suicide experience more feelings of rejection, a greater sense of responsibility, and an increase in the emotions of shame, embarrassment, and stigma associated with the suicide than parents of children bereaved by other deaths (Arnold et al., 2005; Bailey et al., 1999).

In addition, bereaved parents expressed "shock," as well as feeling "stunned and overwhelmed with disbelief." Anger is often directed toward "mental health systems, God, and the world in general" (Miles & Demi, p. 208, 1992). However, parents are confused and conflicted when their anger is directed toward the died-by-suicide child. The anger, van Dongen (1990) hypothesized, was not only a mechanism of experiencing disbelief, but was an "essential component of the questioning process, a searching for reasons, and wanting to blame someone or something for the death" (p. 226).

Acceptance of the death is an important aspect of the grieving process. Well-meaning family, friends, hospital staff, police officers, or others who advise against

viewing the body disfigured by trauma may interfere with the individual's acceptance of the death. Family members who did not view the body (49%) regret the decision. They believed that viewing the body may have assisted them to accept the death more readily (van Dongen 1991).

Parents experience a constellation of emotions that impact every aspect of their lives as they grieve the suicide of their child. They struggle to maintain their identity as parents while taking on the painful role of survivor. Bereaved parents are often at the mercy of emotions that emerge in uncontrollable waves of sadness at the most unpredictable moments. They struggle to control their emotions while they attempt to continue their lives with a sense of normalcy.

### **Physical Effects**

The long-term effects of death-related stress and repressed feelings of intense grief have a detrimental impact on the physical well-being of bereaved parents, leading to psychosomatic illness and health risk behaviors (Kivimäki, Vahtera, Elovainio, Lillrank, & Kevin, 2002; Worden, 2002). Research supports a positive correlation between a psychologically stressful life event, such as the death of a child, and the manifestation of physical illness (Arnold et al., 2005; Dyregrov, et. al., 2003; Murphy, Lohan et al., 1999; Prigerson et al., 1997) compared with the general populace, with mothers exhibiting more physical symptoms than fathers (Li et al., 2005). An increased incidence of tobacco and substance abuse are other factors that contribute to ineffective coping for the bereaved, which ultimately contributes to an increase in health-related risk factors (Kivimäki et al, 2002).

Diagnostically, depression is a comorbid disorder associated with PTSD that magnifies the symptoms by causing insomnia, hypophagia, and anhedonia, thereby predisposing the bereaved to a myriad of somatic symptoms (Prigerson et al., 1997). Furthermore, family members bereaved by suicide describe anorexia, chest discomfort, fatigue, sleep disturbances, and exacerbation of chronic illness (gastrointestinal, arthritis, asthma, cardiovascular disease) as stress-related responses associated with the suicide (van Dongen, 1991). The physical and psychological pain of the bereaved is reflected in multiple visits to the primary care provider, polypharmacy, and an increased incidence of hospitalizations compared with the general public. In addition, the grieving process increases work absenteeism, disability applications, and other governmental assistance (Stroebe et al., 2004).

The morbidity and mortality associated with bereavement is evident in a 16-year study (1980-1996) that included more than 12,000 bereaved parents. Li et al. (2005) discovered an increase in the mortality rate of mothers, predominantly within the first 3 years post-death, compared with a control group of nonbereaved parents. Furthermore, the mortality rates from natural causes of the bereaved mothers were highest between the 9<sup>th</sup> and 18<sup>th</sup> year post-death. This is in contrast to the incidence of deaths by unnatural causes in the first three years post-death for bereaved fathers. Additionally, bereaved members of a family manifest increased physical symptoms, such as respiratory infections and chronic illnesses. Other manifestations may result in complications associated with substance abuse or conditions that require acute medical or surgical interventions (Bowen, 1991; Kivimäki et. al., 2002).

The correlation between psychological stress related to life events and an increase in health-related illnesses has been the focus of a plethora of studies since the beginning of the last millennium. Links between cardiovascular disease, cancer, and other illnesses have been found to occur with stressful life events. A change in behavioral patterns, for example, sleeping, eating, exercise, and ineffective coping behaviors such as substance abuse, also contributes to an increase in morbidity and mortality (Kivimäki et. al., 2002).

### **Social Support**

Bereaved parents are at high risk for a myriad of symptoms that can potentially result in self-destructive behaviors, especially when combined with PTSD, depression, and mental distress. The ability of parents to seek out support systems, including network groups that encourage them to share experiences and normalize their feelings, is imperative to regaining homeostasis within a family system. Social support is instrumental in recovering balance within the family system. Social support acknowledges to the survivors that they are not alone in their grief. The extent to which the survivors are able to freely express their guilt and process their anger, rejection, and other emotions will have an impact on their ability to find meaning in the death. Acceptance within a social network fosters the family and individual survivors through this process (Wertheimer, 2001).

Parents who experience traumatic grief, depression, and PTSD often do not seek social support or network with others due to the sensitivity of the deaths and an inability to control their emotional and psychological reactions (Murphy, Chung, & Johnson, 2002). Sleep disorders, labile moods, flashbacks, paranoia associated with hypervigilance, impaired cognitive functioning, intrusive thoughts, outbursts of anger,

increased startle reflex, and hallucinations are symptoms that often impair socialization due to the randomness and unpredictability of their occurrences (Dyregrov et al., 2003). The bereaved parents' inability to predict and control their behaviors contributes to parental confusion and prevents the parents from sharing their experiences with others out of fear of ridicule and judgment (Dyregrov et al., 2003; Jordan, 2001). The bereaved find their behaviors incomprehensible and at times question their own sanity. Consequently, they isolate themselves and keep their symptoms secretive, thereby increasing an already frightening situation and worsening an already fragile psyche (Durkheim, 1987/1951).

Furthermore, parents bereaved by suicide may alienate themselves to reduce the stigmatization they perceive from others in the form of subtle, nonverbal interpersonal exchanges (Reed & Greenwald, 1992). A perceived lack of social support (Ness & Pfeffer, 1990), limited education, and mothers who do not work outside the home (Li et al., 2005) are factors that contribute to a higher risk of self-injurious behaviors.

The perceived lack of support and self-imposed isolation are predictors of PTSD, in addition to the cause of death (traumatic), gender (female; Dyregrov, et. al., 2003), and limited coping abilities (Murphy, Johnson, Chung, & Beaton, 2003). In contrast, participating in support groups, expressing emotions honestly and without fear of recrimination, and willingness to accept support from family and friends are factors that seem to mitigate PTSD symptoms (Murphy, Johnson, Chung et al., 2003).

Although social support promotes a sense of well-being, trauma-related studies suggest those bereaved by suicide receive the least amount of community support compared with those bereaved by other types of sudden deaths (Bailey et al., 1999;

Feigelman, Gorman et al., 2008). Whereas other studies suggest suicide does not retain the stigma associated with the past, some parents continue to internalize and negatively interpret the behaviors of family and friends. They believe others will intentionally avoid them, divert eye contact, and redirect the conversation away from the suicide (Dyregrov et al., 2003; Oliver & Fallat, 1995; van Dongen, 1991). To avoid these painful encounters and perceived stigma, the bereaved may fabricate the cause of death (Worden, 1991) or delay personal health care services, fearing the clinicians' negative response to the death (Provini, Everett, & Pferrer, 2000). Regrettably, it is unclear whether the behaviors are an indication of stigma due to the suicide or instead only perceived as such by the family member. Regardless of the cause, the behaviors increase isolation, contributing to the worsening of both psychological and physical symptoms.

In summary, social networks are instrumental in supporting the bereaved through the grieving process and decreasing their vulnerability to PTSD and other psychiatric disorders. Unfortunately, the physical and psychological symptoms are barriers to seeking the assistance of available support networks.

### **Family Dynamics**

The death of a child/sibling is a family crisis that generates chaos as the members grapple with the reality of the death and its implications. The loss of a family member significantly impacts the family as a whole and requires a thorough psychosocial and risk assessment of the family (Worden, 2002). A child's death is stressful for parents as they strive to meet their daily obligations of parenting, supporting the remaining children, and attending to careers, finances, and other responsibilities that are integral to rearing a family (Balk & Corr, 2004). The profound destabilizing effect of a child/sibling's death



catapults families into abrupt changes of roles and expectations (Hoogerbrugge, 2002; Rando, 1993). Increased anxiety, anger, shame, and guilt, as well as other emotions, are present as families strive to restructure individual roles in an effort to regain a sense of normalcy.

Family members are aware of an “intense void within the family” (van Dongen, 1991, p. 377) and are plagued with shame, fear, and secrets that intensify the grief and volatility within the home. Displaced emotions, such as anger, may result in “scapegoating” one of the remaining children, who unwittingly bears the symbolic emotional pain of the family. The family may pass through several evolutions before restabilization occurs. However, if the grief remains unresolved, it develops into intergenerational grief until the secrets are shared with other family members and the grief is expressed (Hoogerbrugge, 2002). In contrast, open families who promote honest and direct communication and mutual support, regardless of the expressed emotional pain, are able to reestablish a homeostatic family environment compared with a closed family system, where communication and expression of emotions are stifled (Bowen, 1991, Worden, 2002).

The trauma of the loss has decimated the assumptive world of the parent. The parent now realizes the world is no longer benevolent, meaningful, and safe (Janoff-Bulman, 1992). Parents struggle to create new assumptions and may overcompensate for the death of the child while they strive to manage the overwhelming sense of grief, anxiety, and fear that tragedy will once again visit their family. These behaviors often result in overprotection of the remaining children, potentially obstructing normal growth and development (Bongar, Goldberg, Cleary, & Brown, 2000; Rando, 1993).

In conclusion, following the death of a child or sibling, the family structure and roles are undeniably changed, increasing the stress on an already emotionally burdened family. Family members struggle to regain homeostasis in the midst of chaos and grief. As the grief is resolved, the family is able to regain a new identity and balance the loss with the current reality of the death.

### **Spiritual Issues**

Worden (2002) identifies “spiritual adjustment” (p. 34) as an essential component in the healing process for the bereaved. Within this paradigm, the bereaved grapple with their fundamental beliefs and values, while contrasting them with the reality of the death of their child. Deaths that are sudden, violent, and unexpected present the greatest challenge to parents as they struggle to comprehend their changing worldview (Janoff-Bulman, 1992). As parents progress through the grieving process, they are challenged to redefine their relationship with a divine power and to discover meaning in the death. Worden’s (2002) fourth task in his mourning model reflects the ability of the bereaved to accept the death and regain a sense of balance in their lives. The perception of the death evolves from an all-consuming grief to a level of acceptance and a new sense of purpose. Completion of the fourth task leads to an altered sense of spirituality that dovetails into the bereaved parental research of Klass (1999).

In his book, *The Spiritual Lives of Bereaved Parents*, Klass (1999) eloquently and with sensitivity provides the reader with insight into the manner in which parents are able to process the grief and develop a renewed sense of spirituality. Klass integrated the grieving process of parents with three components associated with spirituality: “(1) encounter or merger with transcendent reality, (2) finding a worldview that is, a higher

intelligence, purpose, or order that gives meaning, and (3) belonging to a community in which transcendent reality and worldview are validated” (p. 21). Although the death of a child is “irreparable” and the “bereavement is a permanent condition,” (p. 29) the parents are able to learn to balance the pain of the loss with an alternative perspective to life and living. As the parents accept the reality of the death, they move beyond the rhetorical question of “Why, God?” to discovering an inexplicable “higher purpose” (Klass et al., 1996, p. 24) in the death that is beyond human control. This profound awareness instills confidence to reshape their present and future realities (Klass et al., 1996).

Bereaved parents are confronted with the reality of their child’s death and their inability to control and predict outcomes. Parents are learning to readjust to the world without their child (Worden, 2002). They learn to transform the emotional pain, not by disengaging from the deceased child, but by maintaining a continuing attachment through “characterizations, and thematic memories of the loss, and the emotional states connected with the characterizations and memories” (Klass et al., 1996, p. 200). This new reality serves as a juncture where the parents begin to adjust to the reality of the deceased child and discover new ways to maintain the parent–child bond while moving forward in their lives (Worden, 1991).

In summary, the sense of security and predictability once felt by the bereaved parents and family are shattered. The values, beliefs, and worldview are changed when new assumptions transform the death into a higher purpose (Janoff-Bulman, 1992; Parkes, 1971). However, as the bereaved travel through this journey of grief, they are tasked with redefining their spirituality and their relationship with the deceased. Through

this process, they are able to move forward, while maintaining a delicate balance of continuing attachments with the deceased.

### **Posttraumatic Stress Disorder**

The bereaved are at risk of developing a combination of psychiatric disorders. PTSD, depression, substance abuse, and anxiety disorders are among the psychiatric disorders most frequently associated with sudden death bereavement (Murphy, Gupta et al., 1999). Mood disorders, anxiety disorders (Golier, Yhuda, Schmeidler, & Siever, 2001; O'Donnell, Creamer, & Patterson, 2004), and substance abuse (Read, Brown, & Kahler, 2004) often co-occur with a diagnosis of PTSD. Although each disorder is identified as a comorbidity with PTSD, the focus of this research is limited to implications of PTSD and its effect on bereavement.

A brief historical overview of the designation of PTSD as a psychiatric disorder begins with the writings of Freud and his influence on the etiology of this disorder. His observations were the foundation of the development and advancement of the cluster of symptoms contemporarily accepted as PTSD. Although multiple researchers contributed to the evolution of PTSD as a psychiatric disorder, the emphasis of this section is on the contributions of Freud. In addition, this section will explore the correlation between the development of PTSD and sudden, traumatic, and violent deaths.

### **Historical Overview of PTSD**

In 1980, the *Diagnostic and Statistical Manual of Mental Disorders—Third Edition (DSM—III, 1980)* adopted PTSD into the diagnostic nomenclature and, as a result, the research on the disorder has grown exponentially. Boschen (2008) conducted a Medline search of articles to obtain a “representative sample” of PTSD articles that have

been published since 1980. Articles focusing on PTSD between 1981 and 1985 accounted for 16% of the research articles. Articles on PTSD topics expanded to 38% between 2001 and 2005. Boschen projected this trend would continue over the next 10 years. Peer-reviewed trauma-focused journals, professional organizations, the Internet, and government-based informational websites have contributed to the proliferation of knowledge associated with psychological trauma and the advancement of PTSD into a separate *DSM* disorder.

Experiencing a traumatic event has always been a criterion for a diagnosis of PTSD. It is the only psychiatric disorder that requires a traumatic event as the etiology for the diagnosis (APA, 2000). Soldiers returning from war and civilians surviving traumatic or catastrophic events experience a cluster of symptoms that evolved into the contemporary disorder of PTSD.

In 1918, Freud described his observations and theory, explaining the manifestation of these symptoms from the perspective of both the soldier and the civilian:

In traumatic and war neuroses, the human ego is defending itself from a danger which threatens it from without or which is embodied in a shape assumed by the ego itself. In the transference neuroses of peace (civilian), the enemy from which the ego is defending itself is actually the libido, whose demands are menacing. In both cases, the ego is afraid of being damaged—in the latter case by the libido and in the former by external violence. It might, indeed, be said that in the case of war neuroses, in contrast to the pure traumatic neuroses and in approximation to the transference neuroses, which is feared is nevertheless an internal enemy...we have a perfect right to describe repression, which lies at the basis of every neurosis, as a reaction to a trauma....After severe shock...the dream life continually takes the patient back to the situation of his disaster from which he awakens with renewed terror...the patient has undergone a physical fixation to the trauma. (Freud, 1919/1954, p. 168-169)

Although Freud recognized the psychological implications of a catastrophic event associated with civilians, the majority of the research remained focused on returning veterans. Vietnam veterans were instrumental in the development of the diagnosis of PTSD and subsequent research (van der Kolk, 1994).

In 1952, the initial *DSM-I* category of PTSD introduced traumatic disorders as a “Gross Stress Reaction” (APA, 1952, p. 40). The *DSM-II* emerged 16 years later, revising the category from stress reaction to “Adjustment Reaction of Adult Life” (APA, 1968, p. 49). Treatment and research continued with World War II, Korean, and Vietnam War veterans until 1980, when the *DSM-III* was revised to include PTSD as a subcategory within anxiety disorders (APA, 1980). This revision validated the symptoms veterans and civilians experienced following a traumatic event, and it led to a proliferation of research and publications that continues today. In 1987, the *DSM-III* and *DSM-III-R* revisions reflected research that led to the expansion of the PTSD criteria (APA, 1980, 1987). These revisions included 17 diagnostic symptoms within three major clusters of symptoms: (1) reexperiencing, (2) avoidance, and (3) hyperarousal. Criterion A provided global examples of the disorder to include individuals who witness or participate in a trauma, that is, a: “physical or psychological threat to self or to significant others, witnessing a trauma, or a participant in a catastrophic event” (APA, 1987, p. 249). In 1994, *DSM-IV* further clarified criterion A by including intense fear, helplessness, or horror when witnessing, experiencing, or “confronting” a traumatic event that involved the death or learning of the death, specifically, “threatened death or serious injury to the physical integrity of self or other” (APA, 1994, p.467-468). The *DSM-IV-TR* expanded

the concept of PTSD to include a life-threatening, traumatic event that resulted in “fear, helplessness, or horror” (APA, 2000, p. 219).

### **PTSD and Parents Bereaved by Sudden Death**

PTSD symptoms manifest in bereaved parents following the sudden, traumatic, and violent death of their child. Multiple studies have investigated the response of bereaved parents from accidental deaths, homicide, suicide, and SIDS to assess differences and similarities (Brent et al., 1996a; Brent et al., 1995; Dyregrov, et. al., 2003, Qin & Mortensen, 2003; van Dongen; 1990, 1991). Bereaved parents are devastated by the loss, leaving them “shocked” and bewildered by the sudden and traumatic death (Rando, 1993, p. 570). The intensity of the emotional pain alters their concept of reality and disrupts their ability to function interpersonally, physically, psychosocially, and occupationally (Brent et al., 1996a; Brent et al., 1995; Dyregrov et al., 2003; Qin & Mortensen, 2003; van Dongen, 1990, 1991), often resulting in poor bereavement outcomes (Stroebe, Schut, & Stroebe, 2005).

Dyregrov et al. (2003) found that parents bereaved by suicide developed more symptoms of PTSD 18 months post-death compared with parents bereaved by accidental death. They also experienced more health-related complications associated with the traumatic death, compared with parents bereaved by a SIDS death. The incidence of PTSD is higher for mothers than for fathers bereaved by a traumatic death. However, as the grieving process continues, the symptoms decrease for mothers, whereas the incidence of PTSD increases for bereaved fathers, suggesting that mothers initially experience a more acute response to the death, whereas, the fathers’ response is delayed (Murphy, Johnson, Chung et al., 2003). The prevalence of PTSD was found to be present

as long as 5 years after a violent death in 27.7% of bereaved mothers and 12.5% of bereaved fathers (Murphy, Gupta et al., 1999).

There are four criteria for the diagnosis of PTSD: Criterion A is exposure to a traumatic event that is either life-threatening, results in serious injury or threatens self or another individual; Criterion B: includes re-experiencing the event; Criterion C: results in the avoidance of any triggers associated with the event, and lastly, Criterion D describes the state of hyperarousal (APA, 2000). Although parents may experience symptoms within three of the criterion, the dominant symptoms are found within symptoms associated with re-experiencing and hyperarousal. Mental images, nightmares, and flashbacks of the death scene were described in 63 percent of participants (van Dongen, 1991). Vivid descriptions of the death (11%) were described as “recurrent episodes in which they relived cognitively, emotionally, and physiologically the reality of finding the body of the deceased. The duration of each episode lasted 15-25 minutes. Following these episodes, the participants were fatigued and unable to continue with activities of daily living” (van Dongen, 1991, p. 376). The impact of PTSD symptoms may be more severe in those who witnessed the suicide compared with the bereaved who are informed of the suicide by others. Consequently, the more violent the death is, the higher the incidence of PTSD is (Brent et al., 1993; Farmer, Tranah, O’Donnell, & Catalan, 1992).

Bereaved parents are plagued with the presence of intrusive memories, thoughts, and images (Dyregrov et al., 2003) that may last between 4 and 60 months post-death (Murphy, Gupta et al., 1999; Murphy, Johnson, Fan, Wu, & Lohan, 2003). Re-experiencing the traumatic death through intrusion is more apparent in mothers, whereas, avoidance and hypervigilance is more dominant in fathers (Murphy, Gupta et al., 1999).



Moreover, mothers experienced PTSD symptoms 24 months post-death more frequently than did fathers. However, parents bereaved by suicide reported re-experiencing and avoidance more than 25 months post-death compared with parents bereaved by accident or homicide. Overall, post-death avoidance and hyperarousal were more prominent among bereaved mothers than among bereaved fathers 24 months after the death (Murphy, Gupta et al., 1999).

Murphy, Johnson, Chung et al. (2003), compared the psychological outcomes of parents 4 to 60 months following the accidental, homicidal, or suicidal death of their child. The data showed all three types of death resulted in negative outcomes, such as PTSD, mental distress, and marital conflicts. A qualitative study was conducted specifically to assess the responses of 35 family members bereaved by suicide (van Dongen, 1991). This was the only study located that reported in-depth interviews of family members who discovered the body of their loved one post-suicide. In this study, 10 of 25 family members discovered the body post-suicide. These family members provided detailed accounts of the trauma associated with managing the residual physical remains of the body at the location site. The survivors of family members who died by suicide using a gun continue experiencing the trauma through the “smell (of) the lingering odors, finding tissue and bone fragments” (van Dongen, 1991, p. 376) long after the body was removed and the location was cleaned.

The prevalence of PTSD increases in response to a violent, sudden, and unexpected death of a loved one, and includes parental responses to nonfatal life-threatening events involving a child. Early PTSD researchers also explored the responses of widows and widowers confronted with the sudden and unexpected death of their

spouse. The results indicated that the traumatic and sudden death of a spouse was more likely to trigger symptoms of PTSD and depression compared with the sudden, but naturally occurring, death of a spouse (Kaltman & Bonanno, 2003). An increased incidence of PTSD also occurred 2 to 25 months post-death in spouses bereaved by suicide or accidents compared with those bereaved by natural deaths. In addition, the rate of suicide for widows and widowers was higher when the spouse died by suicide compared with spousal death by natural causes (Zisook, Chentsova-Dutton, & Schuchter, 1998).

Although PTSD symptoms are experienced in each of the domains, reexperiencing/intrusion, avoidance/numbing, and hyperarousal, the frequency and duration of the symptoms varied with each study. For example, Kaltman and Bonanno (2003) found the presence of intrusion and avoidance to be more prominent, whereas in other studies, re-experiencing/intrusion occurred more frequently in survivors (van Dongen 1990, 1991). In addition to violent and traumatic deaths, PTSD symptoms have also been associated with parents of children who develop a life-threatening illness or injury, such as childhood cancer (Alderfer, Cnaan, Annunziato, & Kazak, 2005), diabetes (Iseri, Ozten, & Aker, 2006), and spinal cord injuries (Boyer, Knolls, Kafkalas, Tollen, & Swartz, 2000). Parents of children with a life-threatening illness or injury more commonly report reexperiencing and hyperarousal.

For women, the incidence of PTSD increases with a previous history of psychiatric disorders, including suicide attempts, family history of psychiatric disorders, and inadequate coping strategies. Among women survivors of suicide, increase incident of PTSD is prevalent in women , with limited formal education, women who were not

employed outside the home, and did not have children living in home. The sense of loneliness was profound. Furthermore, the development of PTSD is influenced by multiple factors: mode of death, circumstances surrounding the death, social support, and isolation (Dyregrov et al., 2003).

The advancement of neuroimaging procedures illuminated the neurobiology of PTSD, providing additional credibility to the disorder. The amygdala, located within the limbic system, is central to memories associated with the traumatic event. Through neuroimaging, the activation of the amygdala and visual cortex, combined with the deactivation of Broca's area, can be seen to trigger emotional and visual reexperiencing of the trauma (Rauch & Shin, 1997). Moreover, hippocampus imaging studies show a correlation between the volume of the hippocampus and severity of the PTSD symptoms. Traumatic symptoms appear more severe when there is greater shrinkage of the hippocampus (Bremner et al., 2003).

Symptoms of PTSD have been noted in soldiers returning from many wars; however, there were public and medical misperceptions about the returning veterans' behaviors and limited treatment for their symptoms. The observations and treatment of these soldiers by Freud began the progression toward a diagnosis of PTSD and greater understanding of the etiology of symptoms. Ongoing research has contributed to a greater understanding of the disorder and has expanded the criteria for PTSD diagnosis. The disorder has evolved to include individuals suffering from catastrophic events or experiencing intense "fear, helplessness, or horror" (APA, 2000, p. 219). Finally, PTSD symptoms explain the myriad of symptoms experienced by parents bereaved by sudden and traumatic deaths.

One well-recognized questionnaire used to measure PTSD is the Impact of Event Scale, originally developed by Horowitz, Wilner, and Alvarez (1979). The original questionnaire was developed prior to the *DSM-IV* PTSD inclusion criteria of hyperarousal symptoms and included only 15 items. The revised version (IES-R), developed in 1997 by Weiss and Marmar (1997), includes seven additional items that assess for the presence of hyperarousal symptoms. This 22-item version assesses the degree of symptom difficulty the participant experiences surrounding a stressful life event. Participants are requested to keep in mind the suicide of their child as they respond to questions that specifically target symptoms that occurred in the previous 7 days. The participants respond to each item using a Likert scale to assess for avoidance, intrusion, and hyperarousal. Participants rate the frequency of their responses from 0 (not at all) to 4 (extremely). Responses are summed for a total score, ranging from 0 to 88. The higher the score is, the more likely the participant is to have symptoms consistent with PTSD. Although the IES-R was not specifically designed to diagnose PTSD, participant scores have been used for a preliminary diagnosis of PTSD in many the clinical arenas (Weiss & Marmar, 1997).

Weiss and Marmar (1997) first administered the questionnaire to participants involved in two natural disasters; the 1989 and 1994 earthquakes in California. In the first study, first responders, emergency personnel, and California highway department workers (Caltrans) who responded to the 1989 Loma Prieta earthquake were recruited: (1) those responding to the Interstate 880 freeway collapse, (2) those not assigned to duty on the day of the freeway collapse but who lived and worked in the San Francisco Bay area, and (3) San Diego emergency personnel. A total of 430 participants ( $N = 429$  viable

data) took part in the first phase of the research, and 317 participated in the second phase. The largest number of participants were recruited from the Interstate 880 participants ( $n = 189$ ), followed by the San Francisco Bay area ( $n = 140$ ) and San Diego ( $n = 101$ ) control groups. The participants following the Interstate-880 disaster were interviewed 1½ years following the incident. The control groups from San Francisco Bay and San Diego were interviewed approximately 3 and 4 years after the incident, respectively.

The 1994 Northridge earthquake in Los Angeles provided the participants for the second part of the study: employees from two different insurance companies ( $n = 64$  and  $n = 146$ ). Data were collected from the first group of 64 participants approximately 6 weeks following the earthquake during a 2.5-hour debriefing. The second group of 146 participants completed questionnaires approximately 6 weeks after the disaster that documented the effects of the incident. Of the total number of 210 employees, 197 were viable participants. Re-testing occurred approximately 6 months after the initial assessment, with 175 participants.

Data from both the Interstate-880 participants and insurance companies were collapsed into their respective groups. Data from the first and second assessment of Interstate-880 participants resulted in a Cronbach's alpha of .87 on the Intrusion subscale. The Avoidance subscale indicated little difference in Cronbach's alpha between the first assessment of .85 and second assessment of .86. The Hyperarousal subscale indicated no differences in the Cronbach's alpha of .70 between the first and second assessment (Weiss & Marmar, 1997). The Northridge earthquake insurance participants' data showed a Cronbach's alpha of .91 for Intrusion in the first assessment and .92 in the second assessment. Cronbach's alpha for Avoidance was .84 in the first assessment, compared

with .85 in the second assessment. The Cronbach's alpha for Hyperarousal was .90 in the first assessment and was .89 in the second assessment, indicating highly internally consistent subscales for both groups (Weiss & Marmar, 1997). Test-retest reliability of the questionnaire for the Interstate-880 participants resulted in the following correlation coefficients: .57 for Intrusion, .51 for Avoidance, and .59 Hyperarousal. The correlation coefficients for the Northridge participants were higher: .94 for Intrusion, .89 for Avoidance, and .92 for Hyperarousal. The authors speculated that the time intervals between the occurrence and the test-retest contributed to the fact that the Northridge earthquake sample yielded higher coefficients.

The IES-R has also been used to assess symptoms in neurobiological studies that identified brain structural changes associated with PTSD (Yamasue et al., 2003) and neurochemical changes found in PTSD, complicated grief, and depression (Kersting et al., 2007). Researchers have also used the IES-R to assess PTSD in catastrophic events (Otto, Boos, Dalbert, Schöps, & Hoyer, 2006), life-threatening events (Baumert, Simon, Gundel, Schmitt, & Ladwig, 2004), interpersonal violence (Green et al., 2001), torture (Schutzwohl & Maercker, 1999), war-related trauma (Creamer, Bell, & Failla, 2003) and terrorist events (Pfefferbaum et al., 2001; Sever, Somer, Ruvio, & Soref, 2008; Shevlin & McGuigan, 2003). Cronbach's alpha for the questionnaire has ranged from .80 to .96 for Intrusion, .80 to .96 for Avoidance, and .66 to .96 for Hyperarousal (Baumert et al., 2004; Creamer et al., 2002; Sever et al., 2008; Shevlin & McGuigan, 2003).

The IES-R has been widely used by researchers and has been translated into several languages, such as Japanese (Asukai et al., 2002), French (Brunet, Hilaire, Jehel, & King, 2003), and Chinese (Wu & Chan, 2003). The authors of each version

demonstrated the validity of the IES-R questionnaire and suggested its further use in international research. Furthermore, the IES-R has been used in several Internet studies that measured the severity of PTSD symptoms. The questionnaire was used to measure grief and posttraumatic stress symptoms in 123 college students who were experiencing symptoms related to a sudden and unexpected death of a family member, significant other, or very close friend. The authors found that predictors of complicated grief and the severity of PTSD correlated with avoidant behaviors of emotional coping (Schnider, Elhai, & Gray, 2007). A second study evaluated the effectiveness of Internet-based therapy for PTSD with a German population. The study consisted of a 5-week period in which cognitive-behavioral therapy was used as a treatment option to manage PTSD symptoms. The IES-R was used to assess PTSD symptoms (Knaevelsrud & Maercker, 2007). Although the IES-R has not been used to evaluate symptoms with survivors of suicide, it has proven its usefulness, validity, and reliability in other populations that have experienced psychological trauma.

### **Evolution of Grief Theories From Detachment to Attachment**

Bereavement is a multidimensional experience that binds humans together in a web of pain, sorrow, and anguish. Grief is often expressed inaudibly and is readily recognized by others. It is the universality of grief that has created a plethora of theories, research, and controversy in an effort to understand and heal the psychic wound. The following section will explore the evolution of grief theories, from the psychoanalytical perspective of detachment to the contemporary theories of continuing a bond with the deceased.

Since time immemorial, humans have struggled to understand the intense sorrow that accompanies the death of a loved one. The pain of loss can be expressed as sorrow, defined as “mental suffering . . . grief . . . mourning . . . lamentation” (Agnes, 2002, p. 1368). The sudden, violent, and tragic deaths that involve children intensify these emotions of sorrow and tend to overwhelm the bereaved. Freud, Lindemann, Bowlby, and Worden were early pioneers who developed bereavement theories that influenced generations of researchers and continue to spark debate and controversy.

Thanatologists agree that grief is a normal response to a loss that is “primarily an emotional (affective) reaction to the loss of a loved one through death” (Rando, 1984, p. 6). Grief includes a constellation of emotions such as anxiety, anger, yearning, and pining. Grief is not a single emotion integrated within “diverse psychological (cognitive, social-behavioral) and physical (physiological-somatic) manifestations” (Rando, 1984, p. 6), but a constellation of emotions. The active process in which the bereaved transition into learning new ways of coping and adjusting in a world without the deceased is identified as “grief work” (Freud, 1917/1957; Lindemann, 1944; Parkes, 2002; Stroebe & Schut, 2004b; Worden, 1982, 1991, 2002). Furthermore, clinicians and researchers have attempted to simplify the complexity of grief responses into categories of normal, pathological, delayed, absent, complicated, and traumatic grief. The standardization of these terms provides clinicians and researchers with a universal understanding and taxonomy of the grieving process (Worden, 1991).

In his seminal paper, *Mourning and Melancholia*, Freud (1917/1957) published his observations of mourning, contrasting it with melancholia. Mourning, he wrote, is “regularly the reaction to the loss of a loved or to the loss of some abstraction.” (p. 243)



and does not require professional intervention. Theoretically, “the work of mourning” (p. 255) is complete when the bereaved is able to emotionally “withdraw from its attachments” to the deceased through “reality testing” (p. 244) and accepts the death of the love object. Once the bereaved purges all “memories and expectations” of the deceased, the bereaved “becomes free and uninhibited again (p. 245).”

In contrast to Freud’s observations, Lindemann (1944) was the first to conduct an empirical study of acute grief, identifying it as a “definite syndrome with psychological and somatic symptomatology” (p. 141). Normal processing of grief includes “somatic distress; preoccupation with the image of the deceased; hostile reactions; and a loss of patterns of conduct” (p. 144), culminating with severing the bonds with the deceased. However, if the bonds are not severed, a pathological “morbid grief reaction” (p. 144) may result in mimicking symptoms or behaviors of the deceased, somatization, withdrawal, blaming others for the death, financial and/or occupational demise, depression, and possibly suicide. Lindemann posited that through professional intervention, the psychological and somatic symptoms would be transformed into a normal grief response. His conclusions support the psychoanalytic theory of breaking the bonds with the deceased to complete the linear concept of grief.

Bowlby (1980) influenced a paradigm shift in bereavement theory when he proposed an interrelationship between Attachment Theory and bereavement. Briefly, the foundation of Attachment Theory is explained in the emotional attachment (bond) between mother/mother figure and infant/child. This bond occurs in humans, as well as primates and other mammalian species, as a necessity for survival. When the mother separates from the child, a sequence of protesting behaviors occurs, with the ultimate

goal of reconciling with the loved one. These behaviors are similar to the response that occurs from death separation and are associated with the normal course of bereavement. Bowlby theorizes that the bereaved pass through Four Phases of Mourning: (1) shock and numbness, (2) yearning and searching, (3) disorganization and despair, and (4) reorganization. In contrast to Freud and Lindemann, Bowlby supported the importance of continuing bonds with the deceased and dismissed the premise that a continuing bond is an indicator of pathological grief. Instead, he recognized the bond guided the bereaved to find meaning in the death and to work toward the “reorganization” and restructuring of life without the presence of the deceased. This theory caused controversy among thanatology researchers and continues to spark debates among bereavement researchers.

Worden (1982, 1991, 2002) synthesized the basic tenets of preceding thanatologists, who viewed the grieving process in terms of stages or phases, into tasks that are accomplished by the bereaved. He first published the *Four Tasks of Mourning* in 1982 and explained the stages of grief experienced by the bereaved after a loss. This early model reflected the psychoanalytical concepts of Freud and Lindemann, in which the completion of “grief work” requires detachment from the deceased. In contrast to previous thanatologists, Worden developed a task model as opposed to a stage model of grief to challenge the perception that grief is linear. The model described the “dynamic fluidity” (Worden 1996, p. 12) of grief, a more realist view of the grieving process. Furthermore, Worden’s Four Tasks of Mourning imply a more active role for the bereaved, with tasks to be accomplished within each phase of the grieving process. This is more consistent with Freud’s perception of grief work. The task model also allows clinicians the opportunity to create individual interventions to assist the bereaved through

the grieving process in a more effective manner. Worden's (2002) Four Tasks of Mourning are "(Task I) Accept the reality of the loss (p. 27), (Task II) Work through the pain of grief (p. 30), (Task III) Adjust to the environment in which the deceased is missing" (p. 32), and "(Task IV) Emotionally relocate the deceased and move on with life" (p. 35). Task IV was revised in 1991 from "withdrawing emotional energy from the deceased and reinvesting it in another relationship" (p. 35) to the current adaptation reflecting the paradigm shift that occurred with the development of Bowlby's (1980) Attachment Theory. Bowlby's Attachment Theory shuttled in a paradigm shift that acknowledged and accepted continuing bonds with the deceased, hence, the revision of Worden's Task IV. Furthermore, Attachment Theory, coupled with grief work, is the cornerstone of contemporary bereaved theories.

Worden operationalized Bowlby's phases of mourning by expanding on his theory and presenting the bereaved as active participants in the grieving process, thereby providing them with a sense of empowerment. In each model, the bereaved express the emotions and pains associated with the separation from the deceased and realize that the loss is irreversible and life with the loved one is no longer possible. The bereaved develop new patterns of coping and begin to make adjustments to accommodate the changes that are occurring. Lastly, in both Bowlby and Worden's models, the bereaved realize the previously expressed behaviors and emotions are slowly replaced with cherished memories of the deceased. A connection to the deceased is maintained, and this is considered a healthy response. There is a realization that their lives have changed permanently, and they begin to reorganize their daily routines to accommodate these new changes. In addition, other thanatologists have contributed to the bereavement body of

knowledge by proposing alternative theories and models that define the grieving process. Rando (1993), one of the forerunners in parental bereavement research, posits that behaviors exhibited by bereaved parents considered “atypical, abnormal, or pathological” by some thanatologists are appropriate responses, considering the “intimacy and uniqueness” (p. 613) of the parent/child bond.

In summary, models and theories of grief and bereavement have evolved from the psychoanalytical perspective of detachment from the deceased to the more contemporary perspective of continuing a healthy bond with the deceased. The manner in which that bond continues is unique and defined by the bereft. Bereaved parents learn to reorganize their environment and reframe the loss, allowing them to continue to grow spiritually and emotionally, while maintaining a unique bond with the deceased child.

### **Complicated Grief Versus Traumatic Grief**

The complexities of the human experience challenges researchers to develop psychometric instruments and taxonomy to identify, categorize, and measure bereavement behaviors. Bereavement research has evolved from the simplicity of normal versus abnormal grief to a more expansive and diverse understanding found in the uniqueness of individual bereavement responses. This section will discuss the contemporary controversies surrounding the grief responses of individuals bereaved by violent, sudden, and traumatic deaths.

Initially, Freud (1917/1957) attempted to distinguish between normal and abnormal grief by describing mourning as “normal” or “melancholia.” However, subsequent research discovered human behavioral responses could not be confined within these two terms; therefore, “chronic,” (p. 89) “delayed” (p. 101), and “exaggerated (p.

92) ” grief (Worden, 2002) definitions were operationalized in an attempt to further delineate differences between normal and abnormal grief. Worden (2002) further defined complicated grief as “grief reactions” that may be chronic, delayed, exaggerated, or masked. Chronic grief “is excessive in duration and never comes to a satisfactory conclusion” (p. 89). Worden provides an example of the “ambivalent feelings” expressed by a mother whose adolescent son died by suicide. A “delayed grief reaction” occurs when a mourner’s grief is inconsistent with the significance of the loss. This reaction occurs when the bereaved grief responses are considered an extreme response to the death. Among his examples are suicides and multiple deaths, including war-related deaths. An “exaggerated grief reaction” is associated with an individual deeply grieving a loss and feeling “overwhelmed” by their emotions and/or are reverting to “maladaptive” (p. 92) coping behaviors. The symptoms of an exaggerated grief reaction are often associated with depression, anxiety disorders, PTSD, and substance abuse. Lastly, “masked grief reaction” occurs when the bereaved are experiencing symptoms that are not recognized as grief related to the loss. This may occur when the bereaved presents with physical symptoms or “aberrant or maladaptive behavior” (p. 94), such as frequent visits to the primary care provider for somatic complaints.

Based on the literature, researchers have debated for decades whether grief contains a pathological component or whether it is a normal, individualized response to the death. Conceptualizing grief responses continues today, as researchers struggle to define grief and categorize symptoms. For the first time, the *DSM-III* (APA, 1980) included a category of “uncomplicated bereavement” as a V-category (p. 359), indicating

the circumstances of the bereavement are not customarily indicative of therapeutic intervention.

However, if a more severe reaction occurs, the individual can be diagnosed with depression, PTSD, or adjustment disorder. In 1993, in an unprecedented action, the APA adopted the diagnosis of “bereavement” as a psychiatric diagnosis, thereby recognizing complications associated with grieving. Bereavement researchers negotiated this diagnosis on the condition future revisions of the *DSM* would include bereavement as a more defined and separate category. Unfortunately, this current diagnosis inadequately captures the essence of bereavement complications (Horowitz, Bonanno, & Holen, 1993; Marwit, 1996). Consequently, bereavement researchers have proposed several diagnoses to capture the syndrome. Two leaders in thanatology research have proposed two alternative diagnoses that capture the responses of those bereaved by trauma—*complicated grief* (Horowitz et al., 1997) and *traumatic grief* (Prigerson, Shear et al., 1999)—that are in alignment with Bowlby’s theory acknowledging separation from the attachment figure. Dysfunctionality, separation distress, intrusion, avoidance, apathy, loneliness, emptiness, and other emotions experienced by the bereaved are symptoms common to both diagnoses.

Nevertheless, there is disagreement about the duration of symptoms that range from at least 1 month to 14 months post-death (Horowitz, et al., 1997) compared with 2 months post-death (Prigerson, Shear et al., 1999). Horowitz et al. (1997) proposed two criteria, “avoidance and failure to adapt” (p. 909), whereas, Prigerson, Shear et al. (1999) proposed the criterion of “separation and traumatic distress” (p. 68). Both group has empirical data to support their positions, with a preponderance of the data supporting

traumatic grief as the most inclusive diagnosis (Goodkin et al., 2005-2006; Latham & Prigerson, 2004; Lichtenthal, Cruess, & Prigerson, 2004; Mitchell, Kim, Prigerson, & Mortimer-Stephens, 2004, 2005; Neimeyer, 2005-2006; Silverman, et al., 2000; Stroebe & Schut, 2006). However, other studies (Hoogerbrugger, 2002; Mitchell et al, 2004) have reverted back to using the terminology of complicated grief to define bereavement associated with a traumatic and sudden loss. Therefore, for the purposes of this dissertation, the term complicated grief will be used to define a traumatic death.

In any event, complicated grief is associated with a sudden death that is violent, disfiguring, random, and preventable and often involves the death of a child. The relationship to the deceased may be one of ambivalence or anger. In addition, the bereaved may have a psychiatric history, increased stress, limited support, and unresolved personal losses (Rando, 1993), which are associated with “poor bereavement outcomes” (Stroebe et al., 2005, p. 56).

In an effort to measure complicated grief Prigerson, Maciejewski, et al. (1995) developed the ICG (Appendix B). The questionnaire is a 19-item; Likert Scale designed to distinguish between clusters of symptoms (depression, anxiety, and complicated grief) that empirically predicted long-term dysfunctionality. Each item identifies the emotional, cognitive, and behavioral aspects associated with complicated grief and the accompanying pathological symptoms, that is, symptoms of traumatic distress (feelings of disbelief, being stunned, avoidance, anger, shock) and separation distress (yearning and searching for the deceased, excessive loneliness, preoccupation with the thoughts of the deceased, personal guilt, or audio-visual hallucinations (Prigerson, Maciejewski, et al., 1995). The participant focuses on his or her feelings at the moment the questionnaire

is being completed, thereby “minimizing the potential confounds of memory on responses” (Neimeyer & Hogan, 2004). Participants rate the frequency with which they experience each item on a Likert scale, ranging from 0 (never) to 4 (always.). Item responses are summed for a total score, with a potential range of from a low of 0 to a high of 95.

The initial sample for the development of this questionnaire consisted of 97 nontraumatized widows and widowers, aged 67 to 82 years. Each participant was recruited from an existing sleep study designed to assess physical changes that occur with depression and bereavement. The study also included a healthy control group. Seventy elders were recruited and agreed to participate in the ICG study. The participants were stable on medications that did not include psychotropic effects. Participants with a history of severe psychiatric disorders were excluded from the study. However, participants with minor depression or anxiety were permitted to participate and agreed to psychiatric treatment within the study protocol. In addition to the 70 bereavement participants, 27 healthy controls were also recruited. Exploratory factor analysis indicated that the ICG measured a single underlying construct of complicated grief. High internal consistency (Cronbach’s alpha = .94) and test–retest reliability (0.80) were evaluated after 6 months (Prigerson, Maciejewski, et al., 1995). The Cronbach’s alpha from the ICG scale ranged from .92 to .94, which indicated an improvement in the overall internal consistency, with the removal of three items from the initial ICG 22-item scale. Individual scores equaling 25 or greater showed greater social, general, mental, and physical health dysfunctionality and somatic pain compared with those with a score less than or equal to 25. High internal



consistency and test–retest reliability scores indicated that the questionnaire is reliable in measuring the symptoms of depression versus grief.

The ICG has been used to evaluate the effect of complicated grief in populations ranging from college students to the elderly. Currier, Holland, and Neimeyer (2006) surveyed 1,000 college students bereaved by accident, homicide, or suicide. The ICG showed high reliability of the sample ( $\alpha = .95$ ). In a longitudinal study comprising Dutch parents bereaved by a motor vehicle crash, suicide, or homicide who completed the ICG questionnaire; the internal consistency for Cronbach's alpha ranged from .90 for the first set of survey results to .92 for the second set of survey results (Wijngaards-de Meij, 2005; Stroebe, Schut, van den Bout, 2008). The ICG questionnaire has also been used to assess complicated grief in those bereaved by suicide, and results of that study determined that 43.3% of the participants experienced complicated grief (Mitchell et al., 2005). Lastly, in a study of young adults bereaved by a friend's suicide, the Cronbach's alpha was .94, indicating high internal consistency (Prigerson, Bridge, et al., 1999).

Research utilizing the ICG scale has shown high reliability in assessing the presence of maladaptive symptoms in participants who have experienced complicated grief. It seemingly reflects the emotions and behaviors expressed by the participants and are a clear indication of grief versus depression.

In conclusion, bereavement studies indicate the grief process is unique for each individual and is influenced by the cause of death and circumstances surrounding the death. Researchers have attempted to develop categories to reflect this uniqueness. However, the categories are not sufficient. It is anticipated by researchers and clinicians

alike that the revised *DSM–V* will reflect evidence-based research supporting the creation of a disorder that addresses the symptoms of the traumatically bereaved.

### **Continuing Bond Theory: A Paradigm Shift**

Kuhn's (1970) *Structure of Scientific Revolution* may be used as a guide to explain the controversy between psychoanalytic theory of breaking the bond with the deceased and contemporary theories of maintaining a bond. This post-modern paradigm shift rejected the psychoanalytical assumption of continuing bonds as pathology and instead promoted diverse ways of maintaining a bond with the deceased as a method of advancing the grieving process. Thanatologists embarked on a journey to normalize behavioral responses that were once deemed pathological. This section will provide a review of the changing paradigm.

Wortman and Silver (1989) challenged the psychoanalytical assumptions of grief theory when they published an influential paper that shed light on the errors discovered within the bereavement research. Although some scientists remained loyal to the psychoanalytical assumptions and discounted the findings of Wortman and Silver, other researches supported the continuing bonds theory, and the phenomenon flourished, perpetuating the paradigm shift. The revision of Worden's (1991) *Four Tasks of Mourning* to include continuing bonds is an example of this paradigm shift.

The bond between the bereaved and the deceased continues in a variety of ways. The bereaved find comfort in memories (Field, Nicholas, Holen, & Horowitz, 1999), sense the presence of the deceased (Datson & Marwit, 1997; Parkes, 1986), converse with the deceased (Silverman & Klass, 1996), ask for guidance, and review life events as opportunities to continue an attachment with the deceased. In addition, photographs,

mementos, and family or cultural rituals (Rando, 1993) are techniques used to reminisce, restructure, and reinforce the bonds (Riches & Dawson, 1998). Ethnographic studies have supported these behaviors as healthy ways for bereaved parents to cope with the death and reintegrate the revised inner representation of the child into their daily lives (Klass 1993, 1997; Klass & Walter, 2004).

The bereavement community has shifted its focus away from detachment from the deceased to evolving models that accept continuing bonds as part of a healthy grieving process. Reisman (2001) separates these attachments into two levels.

The first level is defined as the higher order, or symbolic bond. These are tangible objects such as photographs, paintings, creating a garden that reflect a symbolic, indirect, or abstract bond with the deceased that allows the person to move forward in life. In contrast, a lower order bond with the deceased is the inability for the bereaved to dispose of tangible items that belonged to the deceased to create a direct and concrete bond as if the loved one is still alive (p. 447).

Although grief theorists (Attig, 2001; Boelen et al., 2006; Bonanno & Kaltman 1999; Field et al., 2005; Klass et al., 1996; Silverman & Klass, 1996) accept the paradigm shift from detachment to maintaining a continuing attachment with the deceased, additional research is required to further explore adaptive versus maladaptive grieving.

In an effort to measure the concept of “Continuing Bond,” The CBS (Appendix C) was developed by Boelen et al. (2006). The research participants rated three items on a Likert scale, with 0 representing “never” and 4 representing “always.” The CBS assesses the participant’s ability to maintain a bond with the deceased through various modalities, such as (1) sensing the presence of the deceased, (2) retaining and using possessions, and (3) reminiscing through memories.

The researchers discovered a correlation of the continuing bonds phenomenon between presence and possessions ( $r = .19$ ;  $p < .10$ ) and a correlation between presence ( $r = .33$ ;  $p < .5$ ) and memories ( $r = .43$ ;  $p < .01$ ; Boelen et al., 2006). The continuing bond items reflected a low Cronbach's alpha value of .60. However, it is not uncommon for a three-item questionnaire to reflect a low Cronbach's alpha. Moreover, it was the only published Cronbach's alpha value found in the literature review. Potential scores for the CBS range from 0 to 15. The higher the score, the greater is the presence of a continuing bond between parent and deceased child.

Boelen et al. (2006) developed this questionnaire to build on the knowledge obtained from the previous questionnaire developed by Field et al. (1999). It explored the "effect of manifestations of continuing bonds on the development of grief over time" (Boelen et al., 2006, p. 768). Similar to the Field et al. (1999) study, Boelen et al. included the three parameters for assessing a continuing bond. Boelen et al.'s study researched the "extent to which manifestations of continuing bonds predicted later grief and depression independent of symptoms levels.

Boelen et al. (2006) recruited participants from a grief informational Internet website. Participants had the option to complete the questionnaires online or via paper and pencil by requesting that the questionnaire be sent to their homes. Participants who completed the questionnaire online are not included in the review of this study because the data were not available from the researchers.

Fifty-three percent (260 of 490) of the participants completed the pen-and-pencil questionnaires. Participants completed the questionnaire three times within a 21-month period. Seventy-one percent of the participants experienced losses within six months of

the study. These participants were asked to complete the questionnaire at six months and then again at nine months post-loss. The remaining participants completed the questionnaire 7 to 12 months post-loss and a third time at 16 to 21 months post-loss. Most of the participants were grieving the loss of a parent (41%), followed by the death of a spouse/partner (34%), someone else (16%), or a child (9%). In addition, participants were asked to complete the Dutch ICG, a shorter version of the ICG. The authors found that maintaining a continuing bond with the deceased through “presence” was not a predictor of depression or grief symptoms. “Memories” was a greater predictor of grief, and maintaining bonds through possessions was a weak predictor of both grief and depression.

### **Benefits of Parental Bereavement Research**

Research studies themselves offer some potential benefits to parents. A proliferation of bereavement research over the past few decades has led scientists to question the ethics of conducting research on vulnerable populations, such as the bereaved. The risks versus the benefits to the bereaved have stirred controversy among researchers, with compelling concerns on both sides of the issue. Risks associated with bereavement research include “threats to confidentiality, unanticipated disclosures, research-induced distress, and a violation of cultural norms” (Cook, 2001, p. 127).

Benefits to the bereaved include the opportunity to discuss their experience of the death without judgment, the motivation that others may benefit from their experience (Dyregrov, Dyregrov, & Ranudalen, 2000), and an opportunity to more fully understand the circumstances surrounding the death, accept it more readily, and discover meaning in the death (Henry & Greenfield, 2009; Klass, 1999). In addition, the research increased

communication among family members and encouraged them to express their emotions and experience surrounding the death in a healthy manner (Cook, 2001).

Dyregrov's (2004) research explored the responses of 64 bereaved parents of suicide, SIDS, and accidental deaths. He found that 100% of the parents viewed the experience as "positive/very positive" (p. 396-397). They found the interviews therapeutic in the sense that they were able to garner a greater understanding of the death. Furthermore, the parents stressed that although the process was painful, the ability to help others made their effort worthwhile.

Henry and Greenfield (2009) compiled information from 35 psychological autopsy interviews with parents, siblings, and friends bereaved by the suicide of an adolescent or young adult. Through the psychological interviewing process, 63% of the participants were able to seek meaning in the death and relinquish the personal guilt associated with the suicide. A sense that the bereaved contributed to society and hoped their experiences would prevent other suicides was found in 34% of the participants. Other participants (26%) were encouraged by the interviews and felt their loss and suffering was validated and acknowledged by the research. One participant was prompted to seek professional counseling to further her grieving process. A clearer understanding of the circumstances surrounding the death arose out of the interview among 11% of the participants. Another 9% of participants felt "liberated from feelings of blame" (p. 22) and guilt, and were motivated to seek out social support networks. Accepting the reality of the loss occurred among another 9% of the participants. The discussion prodded the participants to discuss the suicide in the past tense, which assisted in accepting the death. One participant was initially hesitant to participate for fear of "reopening his wound."

However, at the end of the interview, he felt the participation assisted him in “working through the sadness and guilt he had been avoiding” (p.22).

Although the majority of the participants expressed a positive outcome from the interviews, several participants were disappointed with them. Three participants felt the focus of the interview was on the negative aspects of the suicide and did not address the positive aspects of the deceased. One individual was disappointed that ongoing therapy was not a component of the research, even though the participants were referred to local counseling agencies. One participant became depressed, and one family began a lawsuit because they did not feel the deceased was protected. The authors surmised these individuals possessed preexisting conditions that led to their vulnerabilities (Henry & Greenfield, 2009).

In conclusion, contemporary theories accept continuing bonds with the deceased as a means of coping with the death and to hold the pains of sorrow in abeyance. The creation of additional bereavement theories and models reflect the complexity associated with traumatic bereavement. Through the decades, the grieving process has evolved from the psychoanalytical perspective of detachment to acceptance of continuing bonds with the deceased. The scientific evolution confirmed the innate knowing of the bereaved, which is that maintaining a healthy continuing bond with the deceased assists in the healing process

### CHAPTER 3

## METHODOLOGY

In this methodology section, the purpose, study sample, questionnaires, procedure for data collection, and analysis are provided. This exploratory, cross-sectional, study utilized a convenience sample obtained via the Internet. Participants included bereaved parents of children who died by suicide 6 or more months earlier. The 6-month criterion was established to meet the *DSM-IV-TR* (APA, 2000) diagnosis for PTSD and the proposed criterion for complicated grief. This design also provided a cross-section of bereaved parents in various stages of the grieving process.

The primary purpose of this study was to determine whether the levels of PTSD and complicated grief are diminished when parents maintain a continuing bond with the deceased child. In addition, this research also compared the responses of two groups of bereaved parents. Group I (direct observation) comprised parents who experienced the direct observation of the suicide by witnessing the death or finding the body. Group II (informed) comprised parents who were informed of the suicide by law enforcement, family, or other methods, but did not witness the suicide or find the body of their child.

The research was designed to answer four hypotheses and one research question:

- H<sub>1</sub> Parents who maintain a higher level of continuing bond will experience lower levels of posttraumatic stress symptoms following the suicide of their child than do parents who maintain a lower level of continuing bond.



- H<sub>2</sub> Parents who maintain a higher level of continuing bond will experience lower levels of complicated grief following the suicide of their child than parents who maintain a lower level of continuing bond.
- H<sub>3</sub> The level of parental posttraumatic stress following the suicide of their child is predicted by parental continuing bond.
- H<sub>4</sub> The level of parental complicated grief following the suicide of their child is predicted by parental continuing bond.

There was also one research question:

What are the differences between continuing bond scores of parents who experienced the direct observation of the suicide of their child and parents notified of the suicide by indirect methods (by police, family, media, or other method)?

## **Research Design**

### **Description of Sample**

The 219 participants were bereaved parents recruited from a variety of Internet bereavement- and suicide-related websites, chat rooms, social groups, electronic mailing lists, and psychology-related research websites, as well as other mental health professionals. (Appendix A: Recruitment Websites). To obtain this sample, requests for participation were posted on the websites, sent via email, and obtained through personal contact with the survivors. Letters and a summary of the proposal were also sent to suicide- and bereavement-related organizations, requesting that the study recruitment information be published on their websites and/or in their newsletters (Appendix D: Letters). A cover letter or email was sent to potential participants and organizations

explaining the purpose of the study, affiliations of the research, contact information, a link to the University of New Mexico (UNM) Clinical and Translational Science Center REDCap Survey website, and a brief statement of appreciation. Participants were also encouraged to share the researcher's contact information with other bereaved parents of suicide who may be interested in completing the survey. This range of strategies was designed to expose the study to a large number of potential participants associated with a variety of organizations, support groups, and other mental health care professionals within the suicide and bereaved parental community.

Internet inquiries were directed to the UNM Clinical and Translational Science Center REDCap Survey website, which provided additional information regarding the study and invited potential respondents to participate in the study. Written inquiries were directed to the work address of the researcher. The researcher's e-mail address and phone number were provided for any additional inquiries.

### **Power Analysis**

Sample size for this study was determined using the A-priori Sample Size Calculator, Version 3, an online software calculator for *t* tests and multiple regression (Soper, 2011). This software was developed in 2006 and has been used 13.6 million times by researchers in 202 different countries (D. Soper, personal communication, January 5, 2012). According to Munro (2001), sample size is the “desired power, acceptable significance level and the expected effect size” (p. 91). The desired power for the *t* test in this study was one-tailed, 0.8, with a significance level (probability) of .05 and a moderate expected effect size of 0.5. The calculated sample size for each of the two groups (direct or indirect methods) was 51, for a total sample size of 102. Sample size for

multiple regression was calculated using a power of 0.8, a significance level of .05, and a small effect size of 0.15. The sample size was 103 (Soper, 2011). Cohen's *d* (1988) was used as the measure for effect size: small effect size (0.20), medium effect size (0.50) and large effect size (0.80).

### **Inclusion/Exclusion Criteria for Study Participants**

**Inclusion criteria.** The participant self-identified as a parent of an unmarried child who died by suicide more than 6 months earlier. In addition:

1. The participant was able to read and write English.
2. The participant had access to a computer and Internet.
3. The participant had basic computer skills.

**Exclusion criteria.** Individuals who did not self-identify as a parent of a child who died by suicide were excluded. Exclusion criteria also included:

1. Individuals whose child died by suicide less than 6 months prior to the completion of the questionnaire.
2. Individuals who were suicidal or homicidal at the time of the study.
3. Individuals whose child's suicide was politically or religiously motivated.

### **Questionnaires for Data Collection**

Four questionnaires were used to collect data:

1. A demographic questionnaire
2. The Impact of Event Scale–Revised (IES-R)
3. The Inventory of Complicated Grief (ICG)
4. The Continuing Bond Scale (CBS)

5. An optional narrative component in the demographic and CBS sections, and at the end of the survey.

**The demographic questionnaire.** The demographic questionnaire (Appendix E) included 21 items. The questionnaire provided the participants with the option of “I chose not to answer” as a response for all demographic questions.

**The Impact of Event Scale–Revised.** The IES-R is a self-report, 22-item, Likert-scale questionnaire used to assess distress caused by traumatic events. It was used as the measure of PTSD in this study. It includes the subscores of Intrusion, Avoidance, and Hyperarousal, which are the categories used to define PTSD in the *DSM–TR–IV* (APA, 2000). The IES-R (Appendix F) is the revised version of the original Impact of Event Scale developed by Horowitz et al. (1979). The 1979 version did not include measurement of the hyperarousal criteria for PTSD, which was included in the revised version. The participants responded to each item using a Likert scale to assess for avoidance, intrusion, and hyperarousal. Participants rated the frequency of their responses from 0 (not at all) to 4 (extremely), with a possible summated total score ranging from 0 to 88. The development and psychometrics of this questionnaire were discussed earlier as part of the literature review.

**The Inventory of Complicated Grief questionnaire.** The ICG (Appendix B) is a self-report, 19-item questionnaire developed by Prigerson, Maciejewski et al. (1995). Participants rated the frequency with which they experienced each item on a Likert scale, ranging from 0 (never) to 4 (always). Item responses are summed for a total score, with a potential range of 0 to 76. For the purposes of this study, the recommendations of Prigerson, Maciejewski et al. (1995) were followed, and complicated grief was

considered present in participants with a score totaling 25 or greater. The development and psychometrics of this questionnaire were discussed earlier as part of the literature review.

**The Continuing Bond Scale.** The CBS (Appendix C) is a self-report, three-item, Likert scale developed by Boelen et al. (2006). Research participants rate each item from 0 (never) to 4 (always), with a total potential range of 0 to 12. The higher the score, the more likely is the continuing bond between the participant and the deceased.

Although the Field et al. (1999) Continuing Bond Scale has been implemented in previous studies, the Boelen et al. (2006) CBS was used in only one Internet study. An advantage of the CBS is it contains fewer items, making it more efficient and conducive to Internet studies. However, possible limitations of the Boelen, et al (2006) CBS questionnaire are the response options, which are closely related and may be difficult for participants to distinguish among (never, seldom, rarely, frequently, always). The responses of “rarely” and “seldom” were of particular concern. Consequently, responses were changed from the original scale to the following: never, very rarely, rarely, occasionally, very frequently, and always. An additional limitation of the scale is related in the minimal number of items (3), which may not reflect a respectable Cronbach’s alpha (Pallant, 2010).

**Narrative component.** Several open-ended questions were asked in the demographic and CBS questionnaires and at the end of the survey. Questions asked within the demographic section (Appendix E) included: “Is there any additional information you would like to share with me?” and “What information would you like to share about your deceased child, if any?” In the CBS section, participants were given the

opportunity to comment following each of the three questions. Lastly, one final question was asked at the end of the survey: “If you would like to provide any additional information or comments regarding your child or the survey, please do so in the section below.” The narrative data received was not analyzed for themes. The narrative solely served as exemplars for the quantitative data.

The narrative provided participants with the opportunity to expand on the history of their child and to share information of significance to them. In a study of bereaved parents conducted by Dyregrov (2004), parents expressed a wish to discuss other aspects of their child prior to the death. The researcher reported the parents “experienced the pleasure of having had a child, as well as the sorrow of having lost him/her” (Dyregrov, 2004, p. 395).

## **Procedure**

**Setting.** The Internet served as the study setting. Anonymity was maintained because no identifying information was obtained from the participants. Information was transmitted through a Secure Socket Layer encryption to the UNM Clinical and Translational Science Center REDCap Survey website server and stored on the server. In addition, “The data were collected and managed using REDCap electronic data capture tools hosted at REDCap (Research Electronic Data Capture) which is a secure, web-based application designed to support data capture for research studies, providing: 1) an intuitive interface for validated data entry; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for importing data from external sources” (Harris et al., 2009, grant support: DHHS/NIH/NCRR #1UL1RR031977-01).

The data were downloaded from the server and stored in a password-protected database on the researcher's personal computer. Access to the data was limited to the researcher and the Dissertation Faculty Committee Chairperson.

**Web surveying.** Recruitment of populations using web surveying methods is rapidly expanding as the potential for Internet surveying is being expanded. Hewson, Yule, Laurent, and Vogel (2003) advise recruiting for potential participants on websites that will attract specific populations for the study, at the exclusion of more generic sites, such as media, marketing, and so forth. In contrast, Hewson et al. (2003) also recommend expanding the posting sites to include those that attract visitors other than the specific target audience. This strategy prevents randomness (nonprobability) and results in a biased sample. The current study combined both methods. Specific websites and chat rooms addressing suicide were targeted, as well as bereavement websites and chat rooms. In addition, websites that addressed issues of death and psychology were also targeted.

A limitation of the web surveying is that it does not allow participants the discretion to respond to questions in the order they deem most appropriate, as do traditional questionnaires, in which participants are able to skip or review upcoming questions and navigate between questions at will. Web survey questions are most often in a linear presentation, requiring the participant to respond sequentially. Participants completing a web survey are required to use a sequence of computer steps that may be problematic, depending on the computer skills of the participant. Omitting one step of the sequence may result in the participant not being allowed to complete the survey. In addition, further confusion may arise when the software and hardware used by the

participant is incompatible with software and hardware used by the designer of the survey. This may result in an inability to properly complete the survey (Dillman, 2007).

Exclusion of potential participants who did not have access to a computer or online access was another limitation of the study. There may also have been a potential cultural bias among some minorities against using web-based discussion groups for this kind of experience. If so, it would result in sample bias because study participants were self-selected from online discussion groups. Therefore, a lack of online discussion group participation would eliminate the opportunity for some minorities to participate in the study.

Because online surveys are self-reported, it may be difficult to discern whether the participant is providing correct demographic information or other pertinent data. Another factor that may influence the survey may be the propensity of some individuals to complete surveys, whereas other participants may chose not to do so, possibly resulting in systemic bias (Wright, 2005). In addition, when participants self-report their responses, the researcher assumes that the participant is trustworthy and is completing the survey honestly and accurately.

Lastly, security and confidentiality of the participant may be compromised with web surveys (Dillman, 2007). Safeguards must be taken by researchers to prevent the hacking of unauthorized users to obtain sensitive data obtained from the participant. These considerations will continue to be explored as web survey research expands into other dimensions.

***Strengths of Web surveying.*** Although there are limitations to web surveying data collection, there are multiple strengths to its use. Depending on the research, web



surveying may be more advantageous than traditional pencil-and-paper research. Birnbaum (2004) identifies “three important advantages of web research over lab research”: (1) large samples improve statistical power and “model fitting”; (2) it decreases the prevalence of college student-generated studies, increasing diversity; and (3) the population is “specialized” (Birnbaum, 2004, p. 813).

Web surveying is conducted through a virtual media without personal, physical contact with the participant. This method is counterintuitive to the traditional scientist, whose research requires participant physical contact. Lack of contact may be seen as a limitation by a traditionalist, but for web survey researchers it is considered a strength. Smith & Leigh (1997) suggest that participants in traditional research are sensitive to “common cues” (p. 497), verbal or nonverbal, unconsciously displayed by the researcher and may unwittingly influence the responses. Obviously, because there is no physical contact with the participant in web survey research, the unconscious behaviors of the researcher do not influence the participant responses (Hewson et al., 2003; Smith & Leigh, 1997). Participants directly enter data without an intermediary interpreting the intent of the participant responses or incorrectly entering the data, thereby, simplifying data entry and minimizing errors. The anonymity encourages participants to freely and honestly express themselves, knowing they are free of ridicule or judgment (Hewson et al., 2003).

Missing data are decreased because the participants are responding to questions in a systematic and linear manner. However, if the participant does not wish to answer the question, an option is usually provided to allow him or her to continue without answering that specific question. Furthermore, the Internet enhances the opportunity to recruit large

samples for specific research questions that might not otherwise be available through traditional methods. Lastly, web surveys encourage the participation of a culturally diverse population recruited through multiple list servers, chat rooms, websites, and emails (Hewson et al., 2003). Furthermore, web surveys substantially decrease the cost of conducting research and provide a quicker response time for completion of the survey (Dillman, 2007).

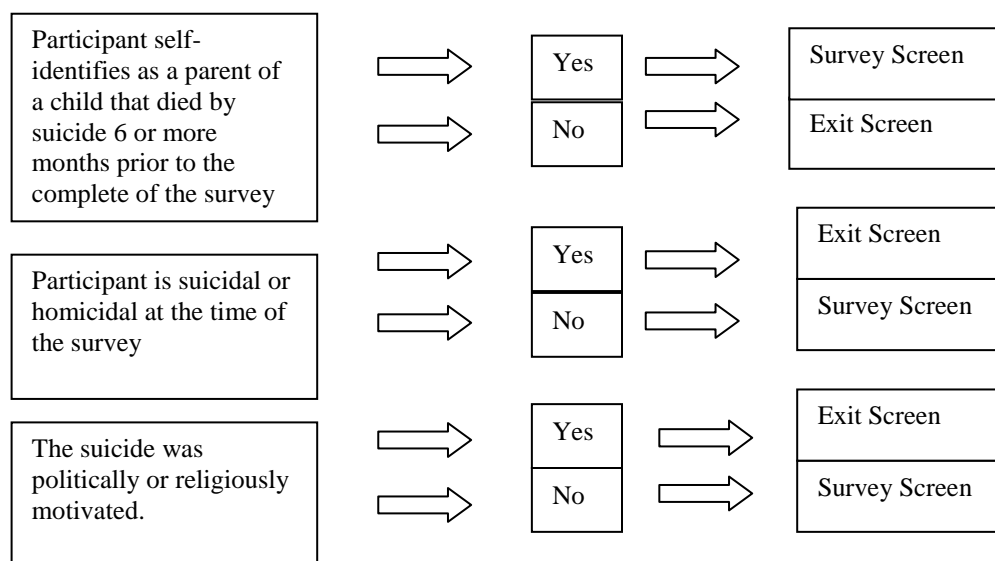
In conclusion, strengths and limitations of data collection exist in both traditional and web survey research. The researcher is tasked with minimizing the weaknesses of the method and maximizing its strengths to design a study with the least amount of Type I or Type II errors and focusing on reliability and validity of the instruments.

**Data collection.** An Introductory Screen (Appendix: G) provided a brief description of the study, the name and credentials of the researcher, the institution represented, the names and credentials of the faculty committee, and Human Research Review Committee (HRRC) approval dates and contact information. Potential participants were invited to complete the survey and were provided with the estimated completion time, which was 20 minutes. Individuals were informed the survey was anonymous and anonymous because no identifying information was required. In addition, three sample survey questions were included to inform the individual of the survey content. Additionally, the participants were advised they could exit the survey at any time and for any reason without consequences. They were also made aware the research was without compensation and at no financial cost to them.

Potential participants were required to complete a brief screening questionnaire to assess eligibility before being enrolled in the study and completing the survey (Appendix

H: Exit Screen content). Ineligible participants were directed to the Exit Screen and thanked for their interest. Eligible participants were directed to the Introductory Screen (Appendix G: Introductory Screen content), which explained the research and informed consent and provided the names of the researcher and dissertation committee members, as well as other pertinent information. In addition, three sample questions taken from the survey were listed to further inform the individual of the content of the survey. This provided individuals with the opportunity to continue with the survey or exit if they chose to not participate in the study.

Figure 1 shows a flow chart of the initial participant screening process.



*Figure 1.* A flow chart that directs the participant to the Exit Screen or to the survey, depending on the criteria.

Example of Exit Screen content (see Appendix H):

Thank you for your interest and participation. If you know of anyone else who may be interested in completing this survey, please refer them to the University of New Mexico Clinical and Translational Science Center REDCap Survey website, at <https://ctsctrials.health.unm.edu/redcap/index.php> or they may contact the researcher directly at [ccapitano@salud.unm.edu](mailto:ccapitano@salud.unm.edu). If at any time before, during, or after the completion of this survey you feel you may be a danger to yourself or someone else, please reach out for help by:

- a. Calling 911
- b. Contacting your local mental health center, your therapist, family member, friend, police, and/or other support systems.
- c. Contacting one of the reference sites listed below.

Additional References:

1. US Suicide Hotline and Prevention:  
1-800-SUICIDE or 1-800-784-2433  
1-800-273-TALK
2. University or community mental health center
3. American Foundation for Suicide Prevention  
<http://www.afsp.org/>
4. American Association of Suicidology:  
<http://www.survivorsofsuicide.com/index.html>
5. Befrienders Worldwide  
<http://www.befrienders.org/index.asp>
6. Bereaved Parents of the USA:  
<http://www.bereavedparentsusa.org/>
7. Chat room:  
SUICIDOLOGY@LISTS.APA.ORG
8. Compassionate Friends:

<http://www.compassionatefriends.org/>

9. Daily Strength website associated with bereavement and support:

<http://dailystrength.org/support-groups/alpha/b>

10. Griefnet:

<http://www.griefnet.org/>

11. Healing Hearts for Bereaved Parents:

<http://www.healingheart.net/>

12. Jason Foundation suicide website:

<http://www.jasonfoundation.com/>

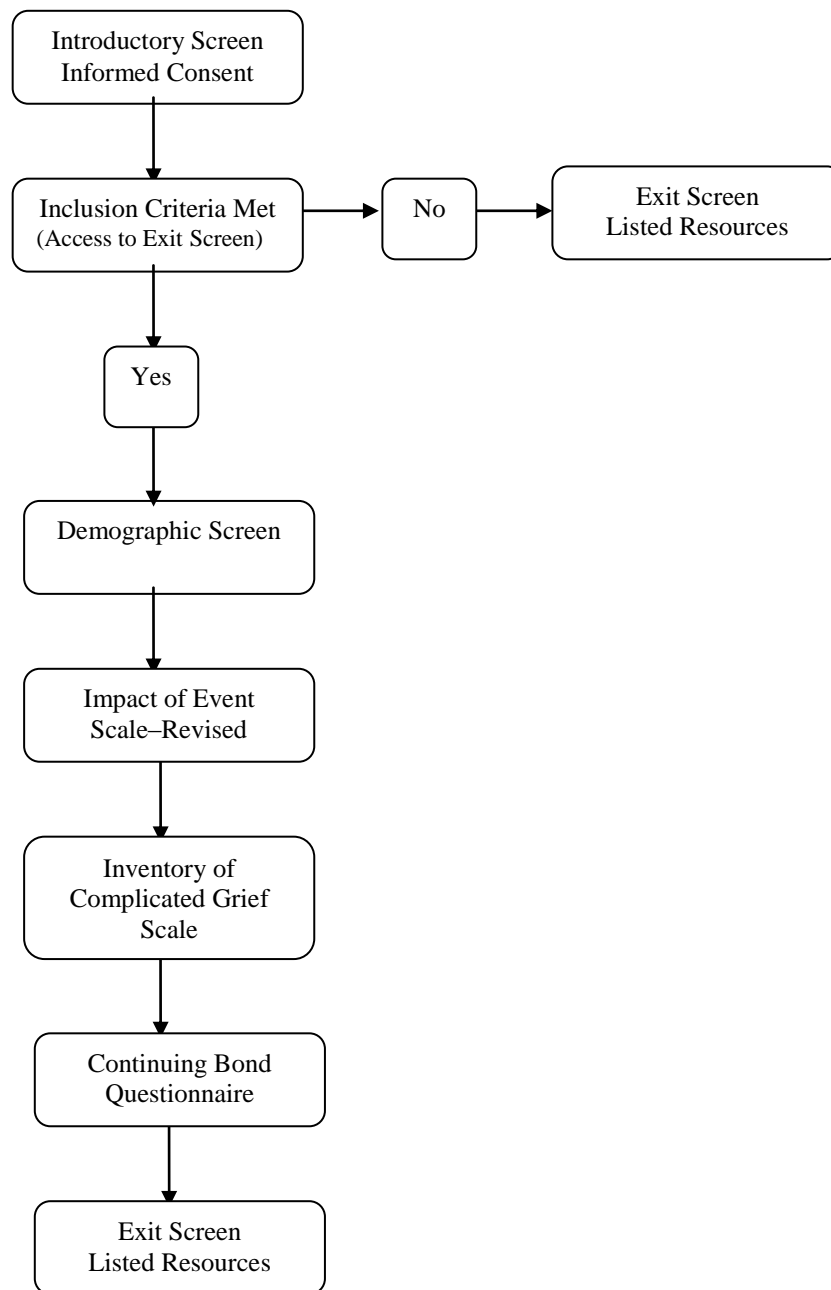
13. Journey of Hearts: An online healing place for anyone grieving a loss

<http://www.journeyofhearts.org>

14. After Death Communication website:

<http://www.adcrf.org/>

Informed consent was implied once participants voluntarily began the survey and by their voluntary submission of the completed questionnaires. However, if criteria were not met, participants were directed to an alternate screen, which thanked them for their interest and provided informational websites related to suicide survivors, grief, and bereavement (Appendix H). Participants were provided with the email address and cell phone number of the researcher to answer questions related to the questionnaires or research. If questions related to mental health issues, the participant was referred to 911, local mental health centers, or online and telephone resources. Figure 2 shows the computer screen sequence of the survey for study participants.



*Figure 2.* A flowchart showing the computer screen sequence for potential study participants and for study participants.

On completion of the survey, responses were saved onto a secure server at UNM College of Nursing. A detailed report of responses from the REDCap database were exported into an Excel workbook format, then entered into SPSS PC (Version 19) for analysis. The researcher transcribed written comments into a text format. The information obtained from the comments was stored and saved for a later secondary analysis.

**Data entry.** The UNM Clinical and Translational Science Center REDCap Survey website was the host Internet software used to conduct this research. The software provided a format that was user friendly and allowed the researcher to enter specific demographic questions in addition to the three questionnaires (IES-R, ICG, CBS). Each screen was visually organized to encourage ease of responses. If a question was not answered, the participant was prompted to answer the question before the next screen was available. If participants chose not to answer the question, they were given the option to click “I chose not to answer” and move to the next screen. The software also allowed for limited participant comments of 250 words.

The questionnaires were coded into SPSS (Version 19); each hypothesis and the research question were analyzed separately. An SPSS codebook was developed to maintain consistency and coding accuracy. The SPSS codebook also provided a reference for coding the variables from the old to the newly created variables. For purposes of analysis and so that a high score would indicate a high level of a particular attribute, item scores were recoded as 0 (never) and 4 (always); this recoding ensured that all item answers were congruent with 0 being never and 4 being always.

**Data analysis.** Data analysis was done in five steps.

1. Aggregation of the questionnaire items into subscales and scales.

2. Tests of internal consistency for the scales and subscales of the study sample.
3. Univariate analysis for each of the study variables, scales, and subscales.
4. Explanation and tests of assumptions for the  $t$  test and for the regression analyses.
5. Hypothesis testing using  $t$  test, correlations, and regression analysis.

*Step 1. Aggregation of the questionnaire items into subscales and scales.*

Participant responses were first assessed for missing data (Mertler & Vannatta, 2002).

Before questionnaire items were aggregated into scales and subscale.

*Step 2. Examination of data.* All variable data were examined to ensure that the value ranges were not outside the potential value range. Questionnaire scales and subscales were created by combining the appropriate individual questions together to create scales and subscales. Internal reliability statistics for each questionnaire scale and subscale were calculated for this study sample to ensure adequate internal consistency. To be used in the data analyses, scale and subscale values for Cronbach's alpha should be .70 or better.

*Step 3. Univariate analysis for each of the study variables, scales, and subscales.*

Univariate statistics were used to assess the distribution of the variable data, including skew and kurtosis. These preliminary tests were completed to ensure the data met the assumptions for the regression analyses and the parametric assumptions for a  $t$  test.

When appropriate, Levene's tests were used to confirm equal variance among groups. Based on the plan for the data analysis, if parametric testing assumptions were not met, then equivalent nonparametric tests would be conducted for the  $t$  test, whereas



transformations would be considered for variables that did not meet the assumptions of normality before regression analysis.

*Step 4. Explanation and test of assumptions for the t test and for the regression analyses.* Data were analyzed to test the assumptions for *t* test analysis. The following section includes the assumptions and each test completed to test those assumptions.

Assumption 1: The independent variable was categorical, and participants responded only within one group. To test this assumption, the data were reviewed to ensure that each participant contributed exclusively to one group.

Assumption 2: The dependent variable data were normally distributed. To test this assumption, Pearson's skewness coefficient ( $\text{mean} - \text{median}/\text{SD}$ ) was used to measure skewness of the data. Fisher's measure of kurtosis indicated the data were normally distributed. Frequencies and measures of central tendency (mean, mode, median) were calculated, along with the range and actual scores of the participants. The standard deviation assessed for normal dispersion of the data, and histograms were used to identify unusual values or clusters. These data reflected the scores from each of three questionnaires, indicating levels of PTSD, complicated grief, and continuing bonds. Normality was determined using quartile plots to assess the percentage of values that were above or below the distribution line, indicating skewness.

Assumption 3: The dependent variable variances were comparable within the two groups (Munro, p. 126). To test the assumption a Levene's test was completed to determine if a pooled *t*-test was required. If the data were normally distributed and the variances for the groups were similar then a pooled *t*-test would not be required. The

criterion for statistical significance was a one-tailed alpha of .05 or a 90% confidence interval, for the two hypotheses.

The explanation and test of assumptions for multiple regression analysis were as follows:

Assumption 1. The sample must represent the population in order to make inferences.

Assumption 2. Correlated variables must represent a normal distribution with scores approximating a normal curve.

Assumption 3. Approximate equal variability must be noted in each score, reflecting the homoscedasticity assumption.

Assumption 4. A linear relationship must exist between X and Y. The graphed scores represent a straight line, with the points scattered around the line.

Both hypotheses were tested using backward method regression. According to Field (2009) the backward method is more desirable than the forward method. Due to the structure of forward method, “it is more likely than the backward method to exclude predictors involved in suppressor effects” resulting in a “higher risk of making a Type II error” (p. 212). The backward method examined the potential effect of demographic variables vis-a-vie the predictive value of the independent variable (continuing bond) on the dependent variables in each regression equation (posttraumatic stress and complicated grief (Munro, 2001).

*Step 5. Hypothesis testing using t test, correlations, and regression analysis.*

The *t* test analyses involved testing two hypotheses and the research question:

H<sub>1</sub> Parents who maintain a higher level of continuing bond will experience lower levels of posttraumatic stress symptoms following the suicide of their child than do parents who maintain a lower level of continuing bond.

Hypothesis 1 tested for differences between the levels of posttraumatic stress symptoms reported by the bereaved parents. Mean continuing bond scores were used to divide the bereaved parents into two groups of those with high and those with low continuing bond scores. The dependent variable was the posttraumatic stress score.

H<sub>2</sub> Parents who maintain a higher level of continuing bond scores will experience lower levels of complicated grief scores following the suicide of their child than parents who maintain a lower level of continuing bond scores.

Hypothesis 2 tested for differences between the levels of complicated grief reported by the bereaved parents. In order to do this mean continuing bond scores were used to divide the bereaved parents into two groups of those with high and those with low continuing bond scores. The dependent variable was the parental complicated grief score.

### **Research Question**

There was also one research question:

What are the differences in the continuing bond scores between parents who experienced the direct observation of the suicide of their child and parents notified of the suicide of their child by indirect methods (by police, family, media, or other method)?

To answer this research question, participants were divided into two groups. Group 1 included parents who had direct observation of the suicide, and Group 2 included parents notified by indirect methods. Therefore, all participants were assigned to only one group, allowing contribution solely to that group, which meets the required assumption for use of *t* test in statistical analysis (Green & Salkind, SPSS, 208). A one-tailed statistical significance at the .25 alpha level and a confidence level 90%. An eta was calculated to determine the significance of the effect size for the independent variable and continuing bond scores for H<sub>1</sub>, H<sub>2</sub>, and the research question.

**Hypothesis testing using regression analysis.** A correlation matrix of demographic variables, continuing bond scores and each dependent variable for the two regression analyses (complex grief and PTSD) was created as the first step. As an initial step in determining the independent variables for entry into the regression equation, a correlation matrix of potential independent variables was examined first. Following this analysis, any variable with a correlation over .1 was entered as an independent variable into the multiple regression analysis. A backward multiple regression analysis with demographic characteristics entered in the first block and continuing bond scores entered in the second block was used for each hypothesis.

H<sub>3</sub>     The level of parental posttraumatic stress following the suicide of their child is predicted by parental continuing bond.

Hypothesis 3 tested for the effect of the continuing bond scores maintained between the bereaved parent and the deceased child on the level of posttraumatic stress scores. Demographic characteristics were entered into the first block of the backward regression and continuing bond scores in the next block. This was done to separate out

the amount of explained variance for posttraumatic stress symptoms contributed by parental continuing bond scores and demographic characteristic variables. The dependent variable was posttraumatic stress symptoms level.

H<sub>4</sub> The level of parental complicated grief following the suicide of their child is predicted by parental continuing bond.

Hypothesis 4 tested for the effect of the continuing bond maintained between the bereaved parent and the deceased child on the level of parental complicated grief. As an initial step in determining the independent variables for entry into the regression equation, a correlation matrix of potential independent variables was examined first to determine whether demographic variables also affected the level of parental complicated grief. A correlation matrix was examined for any demographic variables that had a correlation greater than .1. Any demographic variables that met that criterion were then also included in the stepwise regression analysis as independent variables. This was done to separate out the amount of explained variance contributed by parental continuing bonds and any demographic variables with correlations .1 or greater correlation with parental complicated grief. The dependent variable was parental complicated grief.

### **Protection of Human Subjects**

Prior to the initiation of this research, approval for the proposal was received from the UNM College Nursing and the UNM Health Sciences Center Human Research Review Committee (HRRC). The University HRRC also required the completion of an online human subject certification program.

**Informed consent.** Participants were informed that the study was strictly voluntary. Consent occurred when the participant initiated the study by beginning the

survey. Withdrawal from the study was accomplished by exiting the system or closing the window. In those cases, the data were not saved or recorded.

**Potential risk.** Potential risks to the participant included an emotional response or distress associated with the suicide, breach of confidentiality, and reminders of the traumatic event.

**Protection against risk.** Every effort was made to maintain the dignity of the participants. Participants who felt they needed emotional support were directed to their local mental health center, online web resources, and 1-800 help lines, as well as any personal support systems the participant had already developed. Furthermore, participants self-selected for the study and were given sample questions prior to entering the study. If they felt vulnerable, they most likely did not begin the survey or ended the survey prior to completion (Appendix H).

**Potential benefits to the participants and others.** The benefit to participants include discussion of their child's death by suicide without fear of judgment. Also, there was the ability to help others who are bereaved (Dyregrov et al., 2002; Henry & Greenfield, 2009), and the possibility of improved communication between family members surrounding the circumstances of the death and being able to express emotions (Cook, 2001). Another potential benefit is finding meaning in the death of their child by suicide (Henry & Greenfield, 2009; Klass, 1999; Neimeyer, 2005-2006). In addition, the researcher anticipates the findings will provide insight into bereavement issues specific to this population. For example, the impact on continuing bond scores for parents who experienced direct versus indirect methods of their child's suicide. It will provide

survivors, family members, friends, clinicians, clergy, and the general public with insight into this phenomenon and potentially will improve treatment interventions.

Each potential risk identified by Cook (2001) and bereaved parents' recommendations (Dyregrov, 2004) is addressed as it relates to this dissertation study:

1. Confidentiality:

- (a) no identifying information was obtained from the participant;
- (b) participation was completely anonymous in that there was no face to face communication between the participant and the researcher;
- (c) no identifying information was required to participate in the research;
- (d) data were aggregated; and
- (e) data were stored on a secure server, and the data were locked, with access limited to the researcher and dissertation chair.

2. Unanticipated disclosures:

- (a) the participants had the opportunity to omit questions by choosing the "I choose not to answer" button; and
- (b) participants could exit the study without their answers being recorded.

3. Research-induced distress:

- (a) participants were exposed to several questions prior to the initiation of the interview, so they had the ability to self-select out of the study if they felt vulnerable;
- (b) a list of resources was available to the participants, including contacting 911, family members, or psychotherapists if they felt distressed; and

(c) it is likely the vulnerable would choose not to participate in the research (Cook, 2001; Dyregrov, 2004).

4. Violation of cultural norms:

(a) it was anticipated that individuals whose culture finds the discussion of death taboo would self-select out and not participate in the survey.

Also, the recommendations put forth by Dyregrov (2004) are discussed here as they pertain to this research study:

1. Written communication as the first form of recruitment versus telephone:

(a) all communication in this study was via email, fliers, and Internet postings

2. The scientist shares the results of the research with participants and seeks their feedback:

(a) if requested by participants, the researcher shared the results and solicited feedback from them;

(b) if the research was shared and feedback provided, anonymity was maintained, because there were no identifying information, and the data were aggregated.

Studies researching the participant's perspective on bereavement suggest a positive effect on the participants. Although there may be risks associated with bereavement research with some participants, the majority benefit from the encounter. Every effort has been made to protect the vulnerable individuals and to provide them with the resources needed. The sensitivity of the topic compels researchers to provide educational information on the grieving process, to be respectful of the participants and



their capacity to participate in the research, and to honor and respect their deceased loved ones.

## CHAPTER 4

### DATA ANALYSIS

This chapter presents the analysis of a study that examined whether a relationship existed between the level of parental continuing bond with a child who died by suicide and the parent's levels of PTSD and complicated grief. The study also explored whether the level of a parent's continuing bond would predict his or her level of parental posttraumatic stress and complicated grief. In addition, it examined whether or not the level of continuing bond was different for parents who experienced the direct observation (witnessed the suicide or found the body) of their child who died by suicide compared with parents notified by indirect methods (police, family, media, or other methods) of the suicide. Analysis was performed using SPSS 19.0 for windows. The Research Electronic Data Capture (REDCap) program was used to collect the data online. The survey consisted of 68 questions: demographics (24), Impact of Event Scale-Revised (IES-R; 22), Inventory of Complicated Grief (ICG; 19), and Continuing Bond Scale (CBS; 3), as well as narrative items.

The remainder of this chapter is organized according to the four hypotheses and one research question that directed the study. The results are divided into several sections: demographic characteristics of the participants, demographic characteristics of the child who died by suicide, review of the study variables (IES-R, ICG, CBS) and the results of the *t*-tests used in the analyses for two hypotheses and the research question plus results of the multiple regressions used to analyze the remaining two hypotheses.

### **Demographic Characteristics of the Participants**

Participants were recruited from various online suicide survivor websites and chat rooms; from Internet grief, bereavement and suicide support groups; and among local survivors of suicide. In addition, I attended the American Association of Suicidology annual conference in April, 2011. The study was available from December 23, 2010 to December 12, 2011. There were 346 initial visitors to the REDCap site. Of the initial inquires, 219 completed the survey, resulting in a 63.29% response rate. Among the initial 346 visitors, 7.51% ( $n = 26$ ) were eliminated from the study because the suicide of their child occurred less than 6 months prior to the initiation of the study. Once these visitors were screened and began the surveys, 10.98% ( $n = 38$ ) completed only the IES-R before terminating the survey. Of the participants who completed the IES-R survey, 2.31% ( $n = 8$ ) chose not complete the ICG. Furthermore, 2.31% ( $n = 8$ ) of the participants who completed the IES-R and the ICG, chose not to complete the CBS. Lastly, among these 346 initial visitors, 13.58% ( $n = 47$ ) declined to participate after reviewing the study.

The 219 parents in this study sample were predominately White ( $n = 188$ ; 85.8%) and female ( $n = 200$ ; 91.3%) while males comprised 8.7% ( $n = 19$ ). Almost half of the participants were between the ages of 51 and 60 ( $n = 98$ ; 44.7%), two thirds were married ( $n = 147$ ; 67.1%) and two thirds were employed ( $n = 145$ ; 66.2%). Slightly over half of the participants were employed full time ( $n = 114$ ; 52.1%). Almost three quarters completed high school, vocational school, college or a professional degree (Tables 1 & 2).

<b>Variable</b>	<b>n</b>	<b>%</b>	<b>Cumulative %</b>
<b>Gender</b>			
Male	19	8.7	8.7
Female	200	91.3	100.0
<b>Age</b>			
31-40	8	3.7	3.7
41-50	71	32.4	36.1
51-60	98	44.7	80.8
61-70	28	12.8	93.6
71+	13	5.9	98.6
Missing	1	0.5	100.0
<b>Marital</b>			
Single	7	3.2	3.2
Married	147	67.1	70.3
Divorced	42	19.2	89.5
Living with partner	13	5.9	95.4
Widowed	8	3.7	99.1
Separated	2	0.9	100.0
<b>Employment</b>			
Fulltime	114	52.1	52.1
Part-time	31	14.2	66.2
Disability	13	5.9	72.1
Unemployed	12	5.5	77.6
Unemployed: Seeking employment	48	21.9	99.5
Other	1	0.5	100.0
<b>Education</b>			
Grade school	2	0.9	0.9
High school graduate	45	20.5	21.5
Completed some high school	6	2.7	24.2
College graduate	56	25.6	49.8
Some or completed technical/ vocational education	50	22.8	72.6
Some graduate or professional education (MA, MS, JD, PhD, MD)	17	7.8	80.4
Completed graduate or professional education (MA, MS, JD, PhD, MD)	34	15.5	95.9
Other	7	3.2	99.1
Missing	2	0.9	100.0

<b>Variable</b>	<b><i>n</i></b>	<b>%</b>	<b>Cumulative %</b>
<b>Race/ ethnicity<sup>a</sup></b>			
White/Caucasian (not Hispanic)	188	85.8	85.8
Hispanic or Latino <sup>a</sup>	2	0.9	86.7
Black/African American	1	0.5	87.2
American Indian	6	2.7	89.9
Pacific Island/Hawaiian Native	1	0.5	90.4
Asian	1	0.5	90.9
Two or more races	10	4.6	95.5
Missing	10	4.6	100.0
<b>Ethnicity<sup>b</sup></b>			
Hispanic/Latino	2	0.9	0.9
Not Hispanic or Latino	207	95.2	96.1
Missing	10	4.5	100.0

<sup>a</sup>Responses limited to one category.

<sup>b</sup>Ethnicity without considering race.

One quarter of the participants reported being college graduates ( $n = 56$ ; 25.6%). Many of the participants self-identified as Christian ( $n = 90$ ; 41.1%). The vast majority (80.4%) of participants did not report children currently living in the home. The majority of the participants reported a psychiatric history ( $n = 138$ ; 63%) with more than one third reporting a history of two or more psychiatric disorders ( $n = 82$ ; 37.4%). Depression was the single most frequent psychiatric disorder reported by the participants ( $n = 38$ ; 17.4%; see Table 3).

More than one third of the participants reported a family history of suicide ( $n = 76$ ; 34.7%). The most common suicides occurred among family members that were not first -or second-degree relatives ( $n = 38$ ; 17.4%) and 5 percent ( $n = 11$ ) of participants

Table 3 <i>Participants Demographic Characteristics (N = 219)</i>			
<b>Variable</b>	<b><i>n</i></b>	<b>%</b>	<b>Cumulative %</b>
<b>Faith/religious beliefs</b>			
Catholic	32	14.6	14.6
Christian <sup>a</sup>	90	41.1	55.7
Spiritual	41	18.7	74.4
Jewish	19	8.7	83.1
Other	7	3.2	86.3
Missing	30	13.7	100.0
<b>Children currently living in home</b>			
None	176	80.4	80.4
One or more	39	17.8	98.2
Missing	4	1.8	100.0
<b>Diagnosed with psychiatric disorder</b>			
Yes	138	63.0	63.0
No	81	37.0	100.0
<b>Mood disorders</b>			
Depression	38	17.4	27.5
Bipolar affective disorder	1	0.5	28.3
<b>Anxiety disorders</b>			
General anxiety disorder	7	3.2	33.3
Posttraumatic stress disorder	7	3.2	38.4
<b>Other psychiatric disorders</b>			
Two or more psychiatric disorders <sup>b</sup>	3	1.4	40.6
	82	37.4	100.0

<sup>a</sup>Christian: included all Christian denominations, except Catholicism.

<sup>b</sup>Diagnosed psychiatric disorder: participants chose more than one option.

experienced two or more suicides within the family. The most common length of time since the child's suicide was between 13 and 36 months ( $n = 76$ ; 34.7%; see Table 4).

The majority of the suicides occurred within the United States ( $n = 117$ ; 53.4%); however, the question "In what country did the suicide occur?" was added 7 months after

<b>Variable</b>	<b><i>n</i></b>	<b>%</b>	<b>Cumulative %</b>
<b>Family history of suicide</b>			
No	142	64.8	64.8
Yes	76	34.7	99.5
Missing	1	0.5	100.0
<b>Suicide of family member<sup>a</sup></b>			
Spouse	5	2.3	2.3
Mother	1	0.5	2.8
Father	4	1.8	4.6
Sister	5	2.3	6.9
Brother	3	1.4	8.3
Grandmother	4	1.8	10.1
Grandfather	5	2.3	12.4
Other	38	17.3	29.7
2 or more suicides	11	5.0	34.7
Participants with no family suicide	142	64.8	99.5
Missing	1	0.5	100.0
<b>Months since the suicide</b>			
6-12	14	6.4	6.4
13-36	76	34.7	41.1
37-60	44	20.1	61.2
61-120 or longer	19	8.7	69.9
Missing	66	30.1	100.0

<sup>a</sup> Participants able to choose more than one option.

the initiation of the survey. Prior to the addition to this question, participants were limited to a “yes” or “no” response to the question “Did the suicide occur within the United States?” The decision was made to invite other English-speaking countries to participate in the study in an effort to explore possible differences among the participants in various countries. Because this was an Internet study, it only took a little effort to include participants from other English-speaking countries, notably the United Kingdom ( $n = 4$ ; 1.8%), and Australia ( $n = 4$ ; 1.8%), and Canada ( $n = 3$ ; 1.4%). The addition of this

question began with participant #158 which resulted in 89 (41%) of the participants not having the opportunity to identify a country other than the United States. The data did not show a significant difference among the different countries in response to the survey questions when demographics between the two groups were compared. Relative numbers from the different countries are summarized in Table 5.

<b>Variable</b>	<b><i>n</i></b>	<b>%</b>	<b>Cumulative %</b>
<b>Country in which suicide occurred</b>	117	53.4	53.4
United States	4	1.8	55.2
Australia	3	1.4	56.6
Canada	4	1.8	58.4
United Kingdom	2	0.9	59.3
Other	89	40.6	100.0

Participants were asked whether they witnessed the suicide ( $n = 23$ ; 10.5%) or found the body ( $n = 41$ ; 18.7%) of their child following the suicide. These participants were identified as the *observed group*. The second group, the *unobserved group*,

<b>Variable</b>	<b><i>n</i></b>	<b>%</b>	<b>Cumulative %</b>
Witnessed the suicide	23	10.5	10.5
Found the body of their child	41	18.7	29.6
Neither witness nor found	153	70.7	99.0
Missing	2	0.9	100.0
Observed Group	64	29.7	24.7
Unobserved Group	153	70.7	99.1
Missing	2	0.9	100.0



consisted of participants who were informed of the suicide by other means, that is, police, clergy, family, media or other methods. The observed group consisted of 64 (29.7%) participants and the unobserved group consisted of 153 participants (70.7%; Table 6).

### Demographic Characteristics of the Child Who Died by Suicide

Three quarters of the children who died by suicide were males ( $n = 166$ ; 75.8%) between the ages of 19 and 25, and the suicide was the child's first attempt among 65.3%

Variable	<i>n</i>	%	Cumulative %
<b>Gender of child</b>			
Male	166	75.8	75.8
Female	48	21.9	97.7
Missing	5	2.3	100.0
<b>Age of child</b>			
10-12	2	0.9	0.9
13-15	25	11.4	12.3
16-18	42	19.2	31.5
19-25	86	39.3	70.8
26-30	34	15.5	86.3
31-35	17	7.8	94.1
36-40	7	3.2	97.3
41 or older	4	1.8	99.1
Missing	2	0.9	100.0
<b>Previous suicide attempts</b>			
This was their first attempt	143	65.3	65.3
One previous attempt	32	14.6	79.9
2-5 previous attempts	30	13.7	93.6
5 or more attempts	7	3.2	96.8
Missing	7	3.2	100.0
<b>Method of suicide</b>			
Hanging	86	39.3	39.3
Gun	85	38.8	78.1
Drug overdose/poisoning	18	8.2	86.3
Jumped	11	5.0	91.3
Motor vehicle crash	3	1.4	92.7
Other	16	7.3	100.0

of the participants ( $n = 143$ ). The most common methods of dying were either hanging ( $n = 86$ ; 39.3%) or the use of a firearm ( $n = 85$ ; 38.8%; Table 7).

### **Description of the Study Variables.**

This section provides the results of the three self-report scales completed by the participants. The IES-R measures the individual responses to the distress caused by the traumatic event which in this study was the suicide of their child (Weiss & Marmar, 1997). The total scores for the ICG suggest the severity of the participant's maladaptation to and dysfunctionality from the grief associated with the suicide (Prigerson, Maciejewski et al., 1995). The CBS summation of scores suggests the likelihood of grief associated with the suicide (Boelen et al., 2006). Lastly, the reliability of the scales and subscales for this specific population is reported. Negatively worded items were not included in any of the scales; therefore, it was not necessary to reverse the score any of the items.

### **Posttraumatic Stress**

The presence of PTSD symptoms was measured using the IES-R (Weiss & Marmar, 1997). A Likert scale ranging from 0 (not at all) to 4 (extremely) was used. The total score is the summation of the individual 22 items on the survey. The higher the score, the more likely the parent is exhibiting symptoms consistent with posttraumatic stress. Participants' total IES-R scores ranged from 0 to 79, with a mean of 34.74 ( $SD = 18.4$ ). The potential maximum score of the scale is 88.

As shown in Table 8, participants' total IES-R scores ranged from 0 to 79, with a mean of 34.74 ( $SD = 18.4$ ). Cronbach's  $\alpha$  for this scale was .95, suggesting that the internal consistency for this sample was very good (Pallant, 2010). Weiss and Marmar (1997) do not provide a range of IES-R summation scores that would indicate a diagnosis

of PTSD within their study. Instead, the authors state that the higher the summation scores are, the higher are the levels of PTSD symptoms within the previous 7 days. Other studies that used the IES-R were reviewed and used as a model to compare mean scores reflecting the levels of PTSD. In 1996, Shapiro proposed defining the results as subclinical (less than 8), mild (9-25), moderate (26-43), and severe ( $> 43$ ). Asukai et al., (2000) also found in their study that cutoff points either between 24/25 or 29/30 reflected higher levels of PTSD. A more recent study reported a mean of 28.41 ( $SD = 22.14$ ), which suggested this level of PTSD combined with complicated grief may be an indication in the “development of long term adverse effect of trauma and grief outcomes” (Hargrave et al., 2012, p. 346).

<i>N</i>	<b>Range</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<i>SD</i>	<b>Cronbach’s <math>\alpha</math></b>
219	79	0	79	34.74	18.39	.95

The IES-R consists of three subscales: Avoidance (eight items), Intrusion (eight items), and Hyperarousal (six items). Avoidance Subscale summation scores for this sample of participants ranged from 0 to 28, with a mean of 9.1 ( $SD=6.7$ ). The Avoidance Subscale had a maximum potential score of 32. Cronbach’s  $\alpha$  for this scale was .82 suggesting that the internal consistency for this sample was good (Pallant, 2010; Table 9).

Table 9 <i>Descriptive Statistics for the IES-R: Avoidance Subscale Scores</i>						
<i>N</i>	<b>Range</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<i>SD</i>	<b>Cronbach's <math>\alpha</math></b>
219	28	0	28	9.10	6.67	.82

The Intrusion Subscale scores ranged from 0 to 31 ( $M = 15.6$ ,  $SD=7.8$ ) which had a maximum potential score of 32. Cronbach's  $\alpha$  for this scale was .89 suggesting that the internal consistency for this sample was very good (Pallant, 2010; Table 10).

Table 10 <i>Descriptive Statistics for the IES-R: Intrusion Subscale Scores</i>						
<i>N</i>	<b>Range</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<i>SD</i>	<b>Cronbach's <math>\alpha</math></b>
219	31	0	31	15.61	7.84	.89

The Hyperarousal subscale scores ranged from 0 to 23 ( $M = 10.04$ ,  $SD=6.6$ ) with maximum potential score of 24. Cronbach's  $\alpha$  for this scale was .87 suggesting that the internal consistency for this sample was in the acceptable range (Pallant, 2010; Table 11).

Table 11 <i>Descriptive Statistics for the IES-R: Hyperarousal Subscale Scores</i>						
<i>N</i>	<b>Range</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<i>SD</i>	<b>Cronbach's <math>\alpha</math></b>
219	23	0	23	10.04	6.60	.87

### **Complicated Grief**

Complicated grief was measured using the ICG scale (Prigerson, Maciejewski et al., 1995). A Likert scale ranging from 0 (never) to 5 (always) was used for the scale making the potential range 0-76. The survey authors suggest that a score greater than 25

indicates a worsening of symptoms of grief, higher social and mental dysfunctionality. The participant 19-item summation scores ranged from 4 to 68, with a mean of 33.0 ( $SD = 13.5$ ), with 63 (28.8%) participants scoring 25 or below and 156 (71.2%) participants scoring 26 to 68. As shown in Table 12, the Cronbach's  $\alpha$  for this scale was .90 suggesting that the internal consistency for this sample was very good (Pallant, 2010).

<b><i>N</i></b>	<b><i>Range</i></b>	<b><i>Minimum</i></b>	<b><i>Maximum</i></b>	<b><i>Mean</i></b>	<b><i>SD</i></b>	<b><i>Cronbach's <math>\alpha</math></i></b>
219	64	4	68	33.03	13.47	.90

### **Continuing Bond**

Continuing bond was measured using the CBD (Boelen et al., 2006). A 3-item Likert scale ranging from 0 (never) to 6 (always) was used for the scale. Total potential CBS scores ranged from 0 to 18 with a maximum score of 18. The individual summation scores ranged from 0 to 15, with a mean of 6.3 ( $SD=2.7$ ). The survey authors suggest that the higher the score is, the higher the continuing bond with the deceased is. Participants' scores considered low ranged from 0 to 5 ( $n = 88$ ; 41%). Scores considered high ranged from 6 to 15 ( $n = 127$ ; 59%). Cronbach's  $\alpha$  for this scale was .40 (Table 13).

<b><i>N</i></b>	<b><i>Range</i></b>	<b><i>Minimum</i></b>	<b><i>Maximum</i></b>	<b><i>Mean</i></b>	<b><i>SD</i></b>	<b><i>Cronbach's <math>\alpha</math></i></b>
215	15	0	15	6.28	2.72	.40

The low internal consistency for this sample may be related to the small number of items on the scale (3). The Cronbach's  $\alpha$  for items less than 10 may be difficult to

calculate, therefore, it is recommended that the mean inter-item correlation found in the Summary Item Statistics table be reported (Pallant, 2010). For this population, the mean inter-item correlation was .19, with values ranging from .06 to .29, which suggests the items are not highly correlated (Table 14).

Mean	Minimum	Maximum	Range	Maximum/Minimum	Variance	N of Items
.188	.055	.285	.230	5.187	.011	3

Pallant (2010) also suggests removing the item that is affecting the overall reliability of the scale. However, this scale only has three items, and removing one item would not greatly improve the reliability of the scale. It was decided to retain each item in the survey. In addition, the three scale items are integral to this study. The author recognizes that it is a limitation of the study and this will be addressed in Chapter 5 (Table 15).

Inter-Item Correlations	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	4.37	4.455	.206	.081	.36
Item 2	3.96	4.320	.169	.050	.44
Item 3	4.13	4.121	.348	.125	.10

### Hypotheses and Research Question

The four hypotheses included an independent variable (continuing bond) and one of two dependent variables (posttraumatic stress symptoms or complicated grief). The

research question explored possible differences in continuing bond scores of parents by examining the scores of the direct observation group and the indirect observation group. The following section will explore the analyses of these four hypotheses and one question.

The four hypotheses were:

- H<sub>1</sub> Parents who maintain a higher level of continuing bond will experience lower levels of parental posttraumatic stress symptoms following the suicide of their child than do parents who maintain a lower level of continuing bond.
- H<sub>2</sub> Parents who maintain a higher level of parental continuing bond will experience lower levels of complicated grief following the suicide of their child than do parents who maintain a lower level of continuing bond.
- H<sub>3</sub> The level of parental posttraumatic stress following the suicide of their child is predicted by parental continuing bond.
- H<sub>4</sub> The level of parental complicated grief following the suicide of their child is predicted by parental continuing bond.

The *research question* was:

What are the differences between continuing bond scores of parents who experienced the direct observation of the suicide of their child and parents notified of the suicide by indirect methods (police, family, media, or other method)?

The next section will address the results from the data analysis.

## Data Analysis

### Hypothesis Testing for $H_1$

*Hypothesis 1* was parents who maintain a higher level of continuing bond will experience lower levels of parental posttraumatic stress symptoms following the suicide of their child than do parents who maintain a lower level of continuing bond.

The data for the continuing bond parental scores were divided into two groups. Participants who scored between 0 and 5 were in Group 1 ( $n = 88$ ), the *lower scoring group for continuing bond*. Participants who scored between 6 and 15 were in Group 2 ( $n = 127$ ), the *higher scoring group for continuing bond*. The cut-point for the two groups was between 5 and 6, as seen in the score distribution using SPSS visual binning.

**Analysis of Preliminary Assumptions for the Independent Samples  $t$  Test for  $H_1$ .** The grouping variable of parental continuing bond is dichotomous. The two categories are independent of each other, and the characteristic of interest, posttraumatic stress symptoms, was normally distributed and continuous. Study participants in Group 1, had a mean of 31.31 and a *SD* of 15.77 on the IES-R scale. Study participants in Group 2 had a mean of 37.27 and a *SD* of 19.61 on the IES-R scale. When the posttraumatic stress symptoms (IES-R measure) data were examined using the explore statistical analysis function, both Groups 1 and 2 were unimodal on the IES-R variable, with slight kurtosis and a near normal distribution based on visual examination of histogram, box and whisker plots, frequency distributions, and stem and leaf plots. The skew statistic was 0.173 and the kurtosis statistic was -0.692 for Group 1. For Group 2, the skew statistic was 0.053 and kurtosis was 0.955. Furthermore, the K-S statistic was nonsignificant, indicating normality. Because the significance value for the Levene's test for



homogeneity between Group 1 and 2 was significant ( $p = .01$ ), equal variance between Groups 1 and 2 was not assumed; therefore, data were analyzed using the equal variances not assumed option.

**Hypothesis Testing Using a  $t$  Test for  $H_1$ .** A  $t$  test was conducted to evaluate the hypothesis that participants who maintain a higher level of continuing bond will experience lower levels of posttraumatic stress symptoms (IES-R measure) than do participants who maintain lower levels of continuing bond. The test was significant,  $t(208) = -2.46, p = .01$ . This result was counter to the directional research hypothesis. Participants in the Group 2 (the high scoring continuing bond group)  $M = 37.27, SD = 19.61$  experienced greater posttraumatic stress than those in Group 1 (the low scoring continuing bond group)  $M = 31.31, SD = 15.77$ . The magnitude of the differences in the means between the high and low parent continuing bond groups was  $-5.96$ . The effect size was calculated using eta squared, which resulted in a value of  $.01$ . This effect size indicates a very small effect of parent continuing bond level on posttraumatic stress.

Consequently, the data does not support the hypothesis that parents who maintain a higher level of continuing bond will experience lower levels of posttraumatic stress symptoms. The data shows that parents who maintain a higher continuing bond with the deceased child also experience higher levels of posttraumatic stress symptoms.

### **Hypothesis Testing for $H_2$**

*Hypothesis 2* was: Parents who maintain a higher level of continuing bond will experience lower levels of complicated grief following the suicide of their child than do parents who maintain a lower level of continuing bond.

The data for the continuing bond parental scores were again divided into two groups. Participants who scored between 0 and 5 were in Group 1 ( $n = 88$ ), the *lower scoring group for continuing bond*. Participants who scored between 6 and 15 were in Group 2 ( $n = 127$ ), the *higher scoring group for continuing bond*. The cut-point for the two groups was between 5 and 6, as seen in the score distribution using SPSS visual binning.

**Analysis of Preliminary Assumptions for the Independent Samples  $t$  Test for  $H_2$ .** The grouping variable of parental continuing bond is dichotomous. The two categories are independent of each other, and the characteristic of interest, complicated grief, was normally distributed and continuous. Study participants in Group 1 had a mean of 31.31 and a  $SD$  of 15.77. Study participants in Group 2 had a mean of 34.57 ( $SD = 14.12$ ). When the complicated grief data were examined using the “explore statistical analysis” function, both the high and low groups were unimodal for complicated grief, with slight kurtosis and a near normal distribution based on visual examination of the histogram, box and whisker plots, frequency distributions, and stem and leaf plots. The skew statistic was 0.074, and the kurtosis statistic was 0.387 for Group 1. For Group 2, the skew statistics was 0.033, and kurtosis was 0.732. Furthermore, the K-S statistic was nonsignificant but was significant for the higher score group, indicating some abnormality. However, the K-S test is very sensitive to outliers, particularly when the sample size exceeds 100 (Field, 2009). Histogram plus box and whisker plots looked near normal for this data.

The significance value for the Levene’s test for homogeneity between the high and low continuing bond parent group scores was nonsignificant, suggesting the amount

of variability between the two groups was similar; therefore, equal variance is assumed between the high and low parent continuing bond scores.

**Hypothesis Testing Using a  $t$  Test for  $H_2$ .** A  $t$  test was conducted to evaluate the hypothesis that participants who maintain a higher level of continuing bond will experience lower levels of complicated grief than do participants who maintain lower levels of continuing bond. The test was significant,  $t(213) = -2.22, p = .03$ , indicating that the differences between the groups were significant. This result was counter to the directional research hypothesis. Participants in Group 2 ( $M = 34.57, SD = 14.12$ ) experienced higher levels of complicated grief than did those in the lower continuing bond parent group ( $M = 30.44, SD = 12.34$ ). The magnitude of the differences in the means between the high and low parent continuing bond groups was  $-4.13$ . The effect size was calculated using eta squared which resulted in a value of  $.02$ . This effect size indicates a very small effect of parent continuing bond level on complicated grief.

### **Hypothesis Testing Using Regression Analysis for $H_3$**

*Hypothesis 3* was: The level of parental posttraumatic stress following the suicide of their child is predicted by parental continuing bond. A backward stepwise regression analysis was conducted to determine whether the level of parental posttraumatic stress could be predicted by the parental continuing bond and family demographic characteristics. An assessment of the correlation matrix was done to determine whether any of the demographic variables correlated with parental posttraumatic stress. In the “behavioral sciences correlation coefficients of  $.10, .30, \text{ and } .50$ ” are considered as “small, medium and large coefficients, respectively” (Green & Salkind, 2008, p.259).

Based on examination of the correlation matrix values, the demographic variables that were entered into the backward regression equation only included those demographic variables with a Pearson's coefficient of .1 and above between that particular demographic variable and parental posttraumatic stress (Table 15).

Following the recommendation of Green and Salkind (2008) for behavioral sciences, and using the .1 Pearson's coefficient criterion for selection of independent variables, the following demographic variables were included in the backward regression analysis as index variables: summation scores for continuing bond, months since the suicide, witnessed the suicide, child's age at time of suicide, and previous suicide attempts. The dependent variable was parental posttraumatic stress ( $M = 32.88$ ). After examination of the correlation matrix, the independent variables were entered into the regression in two blocks. The demographic variables entered in the first block included: months since the suicide, parental age, and previous suicide attempts. The parental continuing bond score was entered in the second block (Table 16).

### **Analysis of Preliminary Assumptions for Regression Analysis. for H<sub>3</sub>.**

Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The assumption of normality was met since the variables were normally distributed and sample size was adequate; this is particularly important for the dependent variable (parental posttraumatic stress). The assumption of linearity was met by visual examination of the dependent and independent variable plots. (The points did not fall on the predicted plot line for the relationship between X and Y but were widely scattered around it.) It would have been preferable if they were more closely scattered around this line. Multicollinearity was

Measure	1	2	3	4	5	6	M	SD
1. Parental posttraumatic stress	-	.221**	-.198*	-.041	-.229**	-.087	37.22	16.36
2. Parental continuing bond	.221**	-	.010	-.070	-.184**	-.105	6.19	2.57
3. Months since suicide	-.198*	.010	-	.047	.019	-.004	2.46	.80
4. Child's age at time of suicide	-.041	-.070	.047	-	.378***	.111	2.22	.67
5. Parental age	-.229**	-.184**	.019	.378***	-	.178***	1.70	.576
6. Previous suicide attempts	-.087	-.105	-.004	.111	.178**	-	1.64	1.04

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

examined by looking at intercorrelation of the independent variables, and none were strongly intercorrelated. Homoscedasticity was examined using the Durbin-Watson test ( $d = 2.03$ ) and visual examination of standardized predicted values (ZPRED) and standardized residuals (ZRESID) for random errors.

**Hypothesis Testing Using Regression Analysis for H<sub>3</sub>.** The R<sup>2</sup> from the resulting regression analysis explained only 7.2% of the variance in parental posttraumatic stress (Table 17).

<b>Variable</b>	<b>Coefficient (<math>\beta</math>)</b>	<b>SE</b>	<b>95% CI</b>	<b>p Value</b>
Constant	42	5.3		
Months since suicide	-4.3	1.7	-4.49 to .39	.05
Parental continuing bond	1.1	0.5	0.049 to 1.54	.04

Based on results of the backward regression analysis the best fit model equation was: level of parental posttraumatic stress = 42+ (-4.3 x months since child's suicide) + (1.1 x parental continuing bond level). This combined model explained 7.2% of the variance of parental posttraumatic stress.  $F(2, 143) = 5.4, p < .00$ .

#### **Hypothesis Testing Using Regression Analysis for H<sub>4</sub>**

*Hypothesis 4* was: The level of parental complicated grief following the suicide of their child is predicted by parental continuing bond.

A backward stepwise regression analysis was conducted to determine whether the level of parental complicated grief could be predicted by the parental continuing bond and family demographic characteristics. An assessment of the correlation matrix was examined to determine whether any of the demographic variables correlated with parental complicated grief.

Based on examination of the correlation matrix values, the demographic variables that were entered into the backward regression equation only included those demographic variables with a Pearson's coefficient of .1 and above between that particular demographic variable and parental complicated grief (Table 18).

Measure	1	2	3	4	5	6	<i>M</i>	<i>SD</i>
1. Parental complicated grief	-	.208**	-.066	-.200	-.333**	-.065	33.03	13.47
2. Continuing bond	.208**	-	.190	-.086	0.17	.119	6.19	2.57
3. Months since suicide	-.066	.190	-	-.056	.083	-.010**	2.49	.80
4. Previous suicide attempts	-.200	-.086	-.056	-	.055	.278	1.53	.87
5. Parental age	-.333**	-.017	.083	.055	-	.498	1.70	.58
6. Child's age at time of suicide	-.065	.119	-.010**	.278	.498	-	2.21	.72

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

Using that .1 Pearson's coefficient criterion, the following demographic variables were included in the backward regression analysis: summation continuing bond scores, previous suicide attempts, and parental age. The dependent variable was parental complicated grief ( $M = 33.03$ ). The independent variables were entered into the backward stepwise regression in two blocks. The demographic variables entered in the first block were previous suicide attempts and parental age. The parental continuing bond summation score were entered in the second block.

#### **Analysis of Preliminary Assumptions for Regression Analysis for H<sub>4</sub>**

Preliminary analyses were conducted to ensure that there was no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The assumption of normality was met since the variables were normally distributed and

sample size was adequate; this is particularly important for the dependent variable (parental complicated grief). The assumption of linearity was met by visual examination of the dependent and independent variable plots. (The points did not fall on the predicted plot line for the relationship between X and Y; instead, they were widely scattered around it.) Multicollinearity was examined by looking at intercorrelation of the independent variables, and none was strongly intercorrelated. Homoscedasticity was examined using the Durbin-Watson test ( $d = 2.0$ ) and visual examination of standardized predicted values (ZPRED) and standardized residuals (ZRESID) for random errors.

**Hypothesis Testing Using Regression Analysis for H<sub>4</sub>.** The results of this regression analysis are presented in Table 19.

<b>Variable</b>	<b>Coefficient (<math>\beta</math>)</b>	<b>SE</b>	<b>95% CI</b>	<b>p Value</b>
Constant	38.8	4.3		
Months since suicide	-2.1	1.2	-4.5 to 0.26	.05
Previous suicide attempts	-1.8	1.1	-3.9 to 0.43	.05
Parental continuing bond	0.8	0.37	0.049 to 1.56	.03

The  $R^2$  from the resulting regression analysis explained only 7 % of the variance in parental complicated grief. Based on results of the backward regression analysis the best fit model equation was: level of parental complicated grief =  $38.8 + (-2.1 \times \text{months since the suicide}) + (-1.8 \times \text{previous suicide attempts}) + (-0.8 \times \text{parental continuing bond level})$ . This model explained 7% of the variance in the parental complicated grief.  $F(3, 140) = 3.2, p < .05$ .



### Testing Using a *t* Test for the Research Question

The *research question* was:

What are the differences between continuing bond scores of parents who experienced the direct observation of the suicide of their child and parents notified of the suicide by indirect methods (police, family, media, or other method)?

A *t* test was conducted to evaluate whether there were differences between the continuing bond of parents who experienced the direct observation of the suicide of their child and those parents who found out about the suicide of their child by indirect methods. The variable used to assess whether there were significant differences between the direct observation of the suicide of their child and parents notified by other methods was: *direct witness or found body*. The participants were divided into two groups. Group 1: *neither* ( $n = 161$ ;  $M = 6.15$ ;  $SD = 2.64$ ), indicating the parents did not witness the suicide nor did they find the body; Group 2: *witness or found body* ( $n = 52$ ;  $M = 6.67$ ;  $SD = 2.96$ ) indicating the participants either witnessed the suicide of their child or found the body.

**Analysis of Preliminary Assumptions for the Independent Samples *t* Test for the Research Question.** The group variable *direct witness or found body* is dichotomous. The two categories are independent of each other, and the characteristic of interest is *direct witness or found body*. This variable was used to divide the variable of interest, parental continuing bond scores, into two groups (the group of those parents who witnessed the suicide or found the body and the group of those parents who did not; this group was labeled as *neither* here). When these two groups were examined using the “explore statistical analysis” function, both groups were unimodal, with Group 1

(*neither*) normally distributed. The skew statistic for *neither* was .198 and kurtosis was .264. This analysis was based on visual examination of a histogram, box and whisker plots, frequency distributions, and stem and leaf plots. Group 2 (*witness or found body*) was slightly skewed to the right. The skewness equaled 1.13 and kurtosis was 1.15. The K-S statistic for both groups was significant ( $p = .000$ ), indicating the assumption of normality was violated; however, the K-S test is has a sensitivity to outliers, particularly when the sample size exceeds 100 (Fields, 2009). Histogram plus box and whisker plots looked normal for these data.

Levene's test for equality of variances was not significant; therefore, equal variance was assumed for the  $t$  test  $t(211) = -1.21$  (nonsignificant). The participants in Group 2 (*witness or found body*:  $n = 52$ ;  $M = 6.67$ ;  $SD = 2.96$ ) reported a higher continuing bond than participants in Group 1 (*neither*;  $n = 161$ ;  $M = 6.15$ ;  $SD = 2.64$ ).

**Testing Using a  $t$  Test for the Research Question.** The result of the  $t$  test itself was nonsignificant, indicating there was no difference in the level of continuing bond between the group of parents who witnessed or found their child's body and the group of parents who were informed of the suicide of their child by indirect methods, such as notification by the police.

### **Conclusion**

This chapter reported the results of data analysis of four hypothesis and one research question. Also included were the results of tests of assumptions for each analysis. The following chapter provides a discussion of these results, limitations of the study, implications for nurses and clinicians, and the direction of future research.

## **CHAPTER 5**

### **DISCUSSION AND SUMMARY**

This chapter presents a discussion and the conclusions of a dissertation study that explored whether a relationship existed between the level of parental continuing bond with the child who died by suicide and the parent's level of PTSD and complicated grief. The study also explored whether the level of a parent's continuing bond would predict the level of parental posttraumatic stress and complicated grief. Lastly, it examined whether the level of continuing bond differed between parents who experienced the direct observation (witnessed the suicide or found the body) of their child and parents notified of the suicide by indirect methods (police, family, media, other methods). Conclusions of the study were drawn from descriptive and inferential statistics and supported by commentaries from the participants.

Bowlby's (1980) Attachment Theory was the theoretical framework applied to this study. Attachment Theory assumes the parent-child bond begins when parents are informed they are pregnant. This unique bond with the developing entity is intimate and immediate. After the birth, parents remain engaged in many aspects of their children's lives, building the foundation on which the child develops. Unfortunately, life can be unpredictable and, in spite of the best efforts of a parent, a child may choose to end his or her life. At this fateful moment, the lives of the parents are transformed so dramatically that they are overwhelmed with profound sorrow and guilt, while coping with an array of other powerful emotions.

The early death of a child violates society's perception of the natural order of life and death. This chaotic event often leads to the parent's feeling bewildered and confused by the suicide. Parents may struggle with whether their behavior contributed to the death of their child or how they may have failed to prevent the suicide, thereby amplifying their feelings of self-doubt and remorse. As a consequence of the traumatic occurrence of their child's suicide, parents may experience PTSD and/or complicated grief. The four hypotheses and the research question for this study were:

*Hypothesis 1:* Parents who maintain a higher level of continuing bond will experience lower levels of posttraumatic stress symptoms following the suicide of their child than do parents who maintain a lower level of continuing bond.

*Hypothesis 2:* Parents who maintain a higher level of continuing bond will experience lower levels of complicated grief following the suicide of their child than do parents who maintain a lower level of continuing bond.

*Hypothesis 3:* The level of parental posttraumatic stress following the suicide of their child is predicted by parental continuing bond.

*Hypothesis 4:* The level of parental complicated grief following the suicide of their child is predicted by parental continuing bond.

The research question was:

What are the differences between the continuing bond level of parents who experienced the direct observation of the suicide of their child and the continuing bond level of parents notified of the suicide by indirect methods (by police, family, media, or other method)?

This chapter is divided into sections that include an overview of the study and the findings from the study, the integration of the findings with previous literature, implication of the findings for nursing, and limitations of the study. The final section presents directions for future study and a brief summary.

### **Overview and Summary of the Findings**

#### **Demographics of the Study Sample in the Context of the Literature**

Although the topic of suicide has been researched with some frequency, to my knowledge, this is the first study on parental response to the suicide of their child that categorizes parents into two distinguishable groups: a direct observation group, which included parents who witnessed the suicide or found the body of their child following the suicide; and an indirect group, which included parents who learned about their child's suicide from other people. Initially, three groups were included in the analysis; however, due to the small sample size of *parents who witnessed the suicide*, this group merged into one group with the *parents who found the body*. The combined group, *direct observation*, was created based on these two groups.

**Race, ethnicity and gender.** Participants in this study were mostly White (86%), married (67%), female (91%), Christian (60%), and employed full time (52%). Parents in this sample remained married following the death of their child. This is consistent with Murphy, Clark et al. (2003), who discovered only two articles that addressed divorce and separation after the death of a child, as opposed to 98 other studies that reported that parents remained married after the death of their child.

Native Americans (3%), Hispanics or Latinos (1%), African Americans (0.5%), Pacific Islanders (0.5%), and Asians (0.5%) combined made up 5.5% of the sample. Two

or more races were reported by 5% of the participants, with another 5% not responding to this question.

Wasserman & Richmond-Abbott (2005) found no statistical differences between genders in use of the Internet when they examined Internet usage. However, the higher number of female participants in this study sample are reflective of the current trend in which more women are more likely than men to use the Internet for email and chat rooms (Ono & Zavodny, 2003). Wasserman & Richmond-Abbott (2005) also found that African Americans and those living in rural areas are at a disadvantage in terms of available computers and Internet access. In this survey, only 1 participant was identified as African American, although 10 participants self-identified as two or more races, which might have increased the response rate for this racial group. Even then, the percentage of minorities in the overall study sample was relatively small.

**Method of suicide.** In this study, three quarters of the male children died by suicide on their first attempt, and more than one third died by hanging or use of a firearm. Furthermore, there was a significant correlation between previous suicide attempts and gender of the child ( $r = .17, p < .05$ ). These findings were consistent with other published research that has shown that males tend to attempt suicide more often and complete a suicide more frequently than females. The suicide method used by males is more lethal, that is, firearms and hanging. Conversely, females tend to overdose on medication or use poison. The lethality of the methods used by the male children accounted for the higher percentage of completed suicide by their first and only attempt (Callanan & Davis, 2012).

Although parents may reluctantly accept the findings of the Office of Medical Investigation, there are times when suicide as the cause of death may be questioned by

the parent. Comments from several parents indicated conflicting opinions regarding the number of suicide attempts. Although they may have chosen the option “first attempt” on the demographic questionnaire, they were unclear whether it truly was: “As everyone else in our community said, we all assumed she completed on her first attempt . . . who's to say she attempted once or twice before? Therefore I chose to answer ‘None’ this is her first attempt.” Furthermore, several of the female children died violently on their first attempt. Understandably, this parent would question the method used by his daughter and may have legitimate concerns regarding the death:

I still question whether this really was a suicide, as my daughter had an aversion to both guns & pain. Although she dealt with depression it seems highly unlikely that a gunshot wound to the head would be her choice of how to leave this life. I really feel her choice would have been a drug overdose, not this. The fact that the police department changed their minds & after telling me I could have a copy of the police report, then denied me access based on a statute that they incorrectly applied to the situation (as alleged by an officer in another county) contributes to my doubts about what really happened that night.

The uncertainty surrounding the death and any potential legal issues extends the grieving process. It also magnifies the feelings of guilt that parents may exhibit surrounding the perceived belief that they were not able to either protect their child or intervene on their behalf.

### **Parental Posttraumatic Stress in the Study and the Literature**

Although *Hypothesis 1* predicted that parents who experienced high continuing bond would experience less PTSD. This inverse directional hypothesis was not supported by the data. Instead, study results were just the opposite, with a direct relationship indicating that the higher the parental continuing bond was, the higher the level of PTSD was.

Therefore, parents who maintained a higher continuing bond with their child experienced higher levels of posttraumatic stress for both PTSD and complicated grief. Previous research that explored the relationship between parental continuing bond and PTSD following the suicide of a child is negligible (Field & Filanosky, 2008; Schut, Stroeb, Boelen, & Zijerveld, 2006). Although parental PTSD following the suicide of a child has been researched and reports have been widely published, articles about the relationship between parental continuing bond and PTSD are almost nonexistent in the literature. This study partially addressed that gap in the literature.

As previously noted, the majority of participants were women. Nationally, there is a higher incidence among women seeking treatment for a diagnosis of PTSD than men with the same diagnosis. The Harvard School of Medicine (2007) reports that almost three times as many women (9.7%) are diagnosed with PTSD compared with men (3.6%). Consequently, one possibility for the high levels of PTSD reported by the participants in this study may be related to the higher national average of PTSD found in woman.

In the literature, the majority of children were found by their mothers. In this study, it is not known how many mothers discovered the body of their child following the suicide, although the number of parents who found the body of their child totaled 41. The number of males completing the survey was 19, so at least half the time the body of the child was discovered by the mothers ( $n = 22$ ). Although only 7 participants were diagnosed with PTSD, this experience potentially increases the probability of a PTSD diagnosis requiring treatment and the possibility of the undiagnosed disorder. In addition, because there is a high incidence of PTSD nationally, it is unknown whether the mothers



in this study had a previous history of trauma that was triggered by the suicide or whether the etiology of the PTSD was the child's suicide itself. Nevertheless, the trauma associated with finding a child who died by suicide is evident in the words of this mother:

At first when I found her I could not believe my eye[s] nor did I think she was dead—I went to my family who lives nearby to verify. I was numb for a very, very, long time—no screaming out, no crying just devastated and shocked and completely traumatized.

Although the majority of participants were women, the women in this study also reported a diagnosis of PTSD in the fathers who discovered their child. One mother reported: “My husband found him and he has severe PTSD. He's an R.N. and still manages to work but he's profoundly affected.” Another woman reported common co-occurring disorders associated with PTSD: “My husband found our son after completing suicide. He is suffering from posttraumatic stress and is on anxiety and [anti]depression medication.”

A little more than a quarter ( $n = 63$ ; 28.8%) of the children died between 37 and 120 or more months prior to the initiation of the study. The literature supports a relationship between the duration of time since the death of their child and increased levels of posttraumatic stress, which may also account for the high levels in the PTSD summation scores, suggesting symptoms associated with PTSD in the mothers (Jordan & McIntosh, 2011; Murphy, Chung, & Johnson, 2002). Results showed a small direct correlation between months since the suicide and the levels of PTSD ( $r = .2, p < .05$ ). In contrast, the correlation between months since the suicide and gender was nonsignificant. Murphy, Johnson, Chung et al., (2003) found that 28% of the mothers continued to experience symptoms consistent with PTSD 5 years (60 months) after the death of their

child; that percentage was significantly higher than the father's PTSD symptoms (12.5%) during the same time span. In contrast, Brent, Mortiz, Bridge, Perper, and Canobbio (1996b) did not find an increase in the development of PTSD over the 3 years of their longitudinal study when they interviewed parents following the suicide of their child and the siblings of the children who died by suicide.

As a society, we are often emotionally struck when we hear about the death of a young child, especially if it is an unexpected and traumatic death. Although it may be emotionally devastating to hear of the death of a young child, Séguin et al. (1995) found that parents expressed more traumatic distress and were more symptomatic when the child who died by suicide was between the ages of 18 and 35, in contrast to children who died at an age younger than 18 or older than 35. Because more than half of the suicides in this study occurred in children between the ages of 19 and 35, it seems that this factor of age may account for the higher levels of parental PTSD in this study.

According to the data, 58% of the participants scored 6 or higher on the CBS scale, which suggests increased levels of parental continuing bond. Parents of young adults who leave for college or leave the home often experience "empty nest syndrome." The intense desire to remain close to their child may be indicative of the loneliness they may be feeling. Following the suicide of a child in this 19 to 35 age cohort, intense feelings of sadness, survival guilt, yearning for the child, and a preoccupation with the deceased child, in addition to grief, are magnified, thereby exaggerating the feelings of attachment (Moss, Moss, & Hansson, 2001). In addition, the relationship with the parent evolves as the child develops into adulthood. The parents project their hopes and dreams

onto their children and as an extension, the child represents the future and immortality for the parents.

When the child dies before the parents, these assumptions are shattered, and the effect can be devastating for the parent. In the event the adult child is married and has children, the parents may be excluded from decision making in issues involving life and death, funeral arrangements, and other aspects of the dying trajectory. The focus may be on the spouse of the adult child and/or children to the exclusion of the dead child's parents (Rando, 1993). There is little research about suicide parental bereavement across the lifespan, but it is known that the parents experience a higher risk of mental health issues and suicidal ideation (McIntosh & Jordan, 2011). The majority of parents in this study were between the ages of 51 and 71 or older. Because the children in this age group would most likely have been young or middle adults, some of the issues discussed here may have been factors that contributed to higher levels of PTSD, complicated grief, and parental continuing bond.

Another factor that may have influenced the outcome of this study is the parent-child relationship before the child's suicide. Klass et al., (1996) found that parents frequently reframe the relationship with the deceased, especially if there were ambivalent feelings within the relationship. The parent may, in some ways, rewrite the history with the child so they may feel a sense of closeness (continuing bond) to minimize the feelings of guilt or anger they may feel. In addition, the quality of the past relationship with the bereaved plays an active role in the attachment to the deceased and the ability to integrate the loss (Horowitz et. al., 1984).

Furthermore, a parent whose child has died by suicide is often burdened with the feelings of unfinished business. These feelings often result in guilt about what the parent could have done or said differently prior to the suicide. Parents may re-live their last interaction, looking for clues that they missed or words said that may make them feel closer to their child. In these cases, the sense of love overpowers any negative emotions felt toward the deceased. They desire one last chance to be able to interact in an attempt to banish any feelings of unfinished business.

One parent expressed this internal conflict of loving her deceased son and perhaps unfinished business, but setting boundaries often for her own sanity. Although the parent did not mention the quality of the phone call, the fact that she spoke with her son was memorable. In my professional experience of working with the bereaved, I would surmise that this phone call may have made the parent feel closer to her son after his death and it was something to cherish. The parent shared the distress of living with a child having an undiagnosed psychiatric disorder:

My son's death was a devastating shock. I learned after his death that he was Bipolar. He left a note saying he did not want to continue to live being Bipolar. I had been estranged from my son for about 3 years prior to his death although I did speak with him by phone several days before he died. He lived in another state. We became estranged due to his unpredictable behavior—sending mean letters, leaving hostile phone messages. This behavior caused me great stress and unhappiness over this time. I learned after his death that this was caused by his bipolar illness.

It is interesting to note that support for the paradigm of maintaining a continuing bond with the deceased as part of the normal grieving process has been developing in the current bereavement research literature. This recent emphasis on maintaining a parental continuing bond provided much of the rationale for the design of this study.

In this paradigm, the ongoing parental continuing bond is seen as part of the “normal” grieving process. The aberration occurs when the grief becomes complicated, as in the occurrence of a sudden, unexpected, traumatic death, that is, suicide. In contrast to this trend in the recent research literature, this study seems to support the traditional bereavement paradigm of deathtaking (to withdraw one’s feelings of attachment) to hasten the grieving process, since in some cases, the closeness (continuing bond) to the child may be maladaptive and result in an increase in either PTSD, complicated grief, or both, as was the case for the parents in this research study.

### **Parental Complicated Grief in the Study and the Literature**

Although *Hypothesis 2* predicted that parents who experienced high continuing bond would experience less complicated grief, this hypothesis was not supported by the data. Instead, there was a direct, statistically significant relationship between a higher level of parental continuing bond and higher levels of complicated grief for parents. Given the relationship between PTSD and complicated grief (Hargrave, Leathem, & Long, 2012), it is not surprising that the correlation between PTSD and complicated grief had the highest correlation of all the correlated variables in this study ( $r = .79$ ;  $N = 219$ ;  $p < .001$ ). Given this direct correlation, you would expect the nature of the relationship between complicated grief and parental continuing bond to be very similar to the relationship between parental posttraumatic stress and the level of the parental continuing bond with their child.

The current bereavement literature supports the paradigm of maintaining a bond with the deceased as part of the grieving process. In theory, this bond serves to protect the bereaved from becoming bombarded with overwhelming negative emotions and internal

conflict that surface following a death. However, multiple factors specific to the sample of parents in this study may have influenced the results that were counter to the recent bereavement literature findings. For example, the participants in this study were at different stages of the grieving process. Time since the suicide was discussed as a potential factor influencing the high levels of PTSD; it also warrants mention that time since the suicide has been shown to be an influencing factor with complicated grief in other studies (Field, Gal-Oz, & Bonanno, 2003; Murphy et al., 2002), although this was not the case in the current study ( $r = -.134$ , nonsignificant). For the participants in this study, the time since the suicide of their child ranged from 6 months to more than 10 years. In the first 6 months to 1 year, the bereaved are experiencing their first year without their loved one. It is the first year of birthdays, holidays, anniversaries, and other important events the parent will experience, without the physical presence of the child. On the other end of the continuum were parents whose child died by suicide 10 or more years earlier. One assumption from the literature is that a greater percentage of parents whose child died 10 or more years earlier would have processed the grief to the point where they were able to “accept the reality of the loss” (Worden, 2002, p. 27) and “work through the pain of grief” (p. 30) in order to “adjust to the environment” (p. 32) without their child, and “emotionally relocate the deceased and move on with life” (p. 35). This assumption is supported by Russac, Steighner, and Canto (2002), who also found the level of continuing bond was rated lower when the time since the suicide was greater than 60 months. That does not imply that those parents are no longer grieving the death of their child but, rather, they have found a way to process the suicide, resulting in a peaceful and meaningful solution. This assumption is supported by the comments section

in this study, where parents spoke of finding meaning in the suicide by blogging; facilitating survivors of suicide support groups; writing books, articles, and newsletters; starting organizations that focus on education and prevention; and developing websites, Facebook pages, and chat rooms to support the survivors.

One third of the children in this study died by suicide between 13 and 36 months prior to this study. I would expect this subgroup of parents ( $n = 34$ ; 16 %) to be early in their grieving process. As a result, they may be attempting to reclaim any aspect of a fading bond. This may manifest itself by the parents experiencing emotions more strongly and cherishing every memory they can salvage while treasuring the child's possessions as a way of maintaining a bond. One parent's heartfelt description elaborates on this assumption: "If I am feeling particularly sad I wear one of his hoodies. I have many of his books, films and little personal items scattered throughout our home and often look at them to feel better." However, not all parents were comforted by the possessions of their child. Some parents struggled with possessions or any reminder of their child, as this parent stated: "I find it difficult to look at her possessions."

Furthermore, the relatively high percentage of parents who experienced the death 13 to 36 months prior to the initiation of the study may also help to explain why the overall sample average for both the levels of continuing bond and complicated grief are high. This explanation is supported by the data reported from one study on parental bereavement, which showed that the duration of bereavement ranged from 3 to 5 years after the suicide before the parents were able to better integrate the loss into their lives (Feigelman, Jordan & Gorman, 2008). One third of the parents in this study may have

been at beginning stages of this integration process, and this percentage may have been a factor in the analysis results.

Research by Russac et al. (2002) also found the closeness (continuing bond) of the relationship was significantly related to the time since the death. However, these authors found the relationship (continuing bond) to be closest when the suicide occurred between 12 and 48 months before their survey; their range of up to 48 months prolongs the period of parental adjustment to the death of the child by an additional 13 months more than did the Feigelman, Jordan et al. (2008) study.

One parent described how she treasured the possessions of her son to keep the bond strong:

I kept his favorite old tattered sweat jacket—and sometimes I take it out of the closet to smell it. It still has that musty teenage boy smell, LOL. Sometimes I wear his necklace (Saint Christopher) that I gave him for his First Holy Communion. Whenever I went on a trip, he would make me wear it so Saint Christopher would protect me. I have what is left of most of his possessions in my office on a shelf. I also want to take some of his old clothes and have a quilt made.

It may be assumed from this discussion that the high levels of complicated grief and the high levels of continuing bond may be a maladaptive response. However, more than half of the participants considered themselves as Christian/Catholic. Because the Catholic Church has not considered suicide a mortal sin since the 1980s, parents may be more comfortable expressing the desire to maintain the bond with their child. In those cases, the higher level of continuing parental bond could be explained by their religious belief rather than interpreting it as a symptom of maladaptation (Field, 2006). This mother's comment exhibits a sense of peacefulness in her grief and represents the continued bond, as well as the religious or spiritual perspectives of life after death:



I remember the joy he brought to my life more than anything else and I am comforted knowing and believing that I will see him again. I've told family and friends light heartedly that when I go to Heaven (at 103 years old) I will first give him a big hug and then a spanking, saying "What were you thinking?"

In contrast to recent trends in the bereavement literature, the data from this study suggest that a high parental continuing bond is associated with a high level of parental complicated grief. This result may support Freud's premise that decathecting is a more adaptive response to the suicide of a child. Freud (1917/1957) postulated that "the work of mourning" (p. 243) necessitates the bereaved emotional "withdraws from its attachments [loved one]" (p. 244). Once this is accomplished, the bereaved is able to accept the death and "becomes free and uninhibited again" (p.245). He believed that ongoing relationship with the deceased was pathological and led to a protracted grieving process. Lindemann (1944) extended Freud's theory, believing grief is resolved once the bond is severed with the deceased.

One parent, who described the bond as intense and experienced the pain and sorrow of the loss on a regular basis, expressed a possible protracted grief response. This description of an extraordinarily painful experience expresses both complicated grief and PTSD. It may also be representative of Freud's concern with maintaining a bond with the deceased:

I imagined his spirit sitting beside me so that he could go. . . . I broke down and cried right in the middle of the rafting trip. My prevailing emotions are extreme pain, anxiety, helplessness, fear, and desperation. . . . For the first couple of months after his death I had post traumatic stress disorder. . . . I still cry every day. I still feel pain so intensely that I cannot breathe. I still have moments where I want to die. I will never be the same.

As noted in this parent's statement, PTSD and complicated grief are often enmeshed into the constellation of emotions felt by the grieving parent. The closeness between these two concepts has been debated in the bereavement literature for quite some time, and this debate continues today without resolution. For at least the last decade, thanatologists have tried unsuccessfully to lobby the APA to authorize a diagnostic code for complicated grief. Thanatologists have also struggled with the concept of complicated grief among themselves. Originally, *complicated grief* was the most frequently term used (Horowitz et al., 1997). However, Prigerson, Shear et al. (1999) later proposed the term *traumatic grief*. Recently, Prigerson et al. (2009) proposed the term *prolonged grief disorder*. This disorder is being submitted to the APA for consideration as a psychiatric disorder for the upcoming DSM-V.

In this study, the symptoms of parental complicated grief were assessed using the ICG instrument. According to the authors, this instrument provides greater reliability in evaluating symptoms related to complicated grief and improved reliability in discerning between PTSD symptoms and complicated grief. If, after using this instrument in repeated studies, these two concepts of PTSD and posttraumatic grief disorder can be differentiated, then this instrument may help differentiate between PTSD and complicated grief.

### **Parental Posttraumatic Stress Predicted by Parental Continuing Bond Level in the Study and the Literature**

Based on the current bereavement literature, the research hypothesis in this study expected to find that the level of parental posttraumatic stress following the suicide of a child would be predicted by the level of parental continuing bond. Whereas the parental

continuing bond level did predict a very small amount of parental posttraumatic stress, the vast majority, more than 90%, of the variance was left unexplained.

Scores of studies address different facets of PTSD. In contrast, few studies examine the relationship between PTSD and continuing bond; research studies that examine both the parental continuing bond and PTSD are in the single digits. In one such study of parents, Field and Filanosky (2008) included parental continuing bond and the two concepts of PTSD and complicated grief. The researchers found that parents who reported a close relationship with their child prior to their child's death experienced a healthier bond after the child's death. When images of the deceased are comforting, some survivors may visualize how the deceased may problem-solve issues or try to imitate the deceased in some manner. Field and Filanosky (2008) referred to this as *internal continuing bond*. On the other hand, if the bond was maladaptive, the bereaved would experience an *externalized continuing bond* with the deceased that manifested in "hallucinations and illusions" (p.3). Externalized continuing bond was often related to a violent death (suicide, homicide, accidents). Other research indicates violent deaths are often predictors for PTSD (Dyregrov, 2003).

In this study, parents shared examples of internalized continuing bond:

"Sometimes I see signs that I know are from him. I moved his lamp and the cord had been under it for some time. When I picked it up the cord had left a heart in the carpet." Another parent provided an example of externalized continuing bond as a way of coping with loss. This parent also implied that there was the pressure of a social responsibility to "move on" with her life and give the impression to others that she is coping with the

suicide. The parent also expressed the loneliness, stigma, and frustration felt by survivors of suicide:

I have a big memorial in my dining room of things that belong my son, Pics from birth to his 21st birthday and I wear some of his T-shirts and pants to bed and around the house . . . also have a lot of his music downloaded and (phone) ring tones! Most people that know me and know I have lost a child don't even want to hear me talk about him in ANY way! SAD there is NO COMPASSION in this world especially for someone that ended their life and their survivors!

Research suggests a number of reasons why most people do not develop PTSD.

Many individuals may not have experienced a previous trauma before the current traumatic experience (Dyregrov et al., 2003). Many people have developed effective coping skills (Schnider, Elhai, & Gray, 2007); many people possess a certain critical amount of resilience (Séguin et al., 1995), and many people have a strong network of family and friends (Wertheimer, 2001).

Murphy, Johnson, Chung et al. (2003) found that parents bereaved from a sudden and traumatic death were able to minimize the symptoms of PTSD by attending networking support groups and having a strong family support system. Similarly, in 2003, Dyregrov et al. discovered that the number of children living in the home following the suicide was one factor that protected parents from PTSD and complicated grief. Although parental social networking and support were not directly addressed in their study, the presence of school-age children living in the home and participating in social activities would also involve the parents in social activities. This social activity may have kept these parents from developing PTSD or complicated grief.

In contrast, in the current study, the majority of the parents did not have other school-age children living in the home, and this may be one explanation for their

increased bond with the deceased child. Several of the parents expressed in the comment section that the child who died by suicide was their only child. For several parents, this tragedy was multiplied by the suicide of both their children. Each of these circumstances may have contributed to the high bond levels within this study sample, as well as the high levels of both PTSD and complicated grief. The grief felt by these parents is expressed in the following comments:

I was a single mom with my son for 13 years. He was my first born, my only son, and my whole world. . . . I miss him every day. Think of him constantly. Spend a lot of time at his graveside.

Two of my children have died by suicide. I wish I could have had a last conversation with my daughter. A chance to say, I love you.

My wife and I lost two children to suicide. The first was our 13 yr old son who shot himself. The 2nd was our 19 yr old daughter who was 15 when our son died.

### **Parental Complicated Grief Predicted by Parental Continuing Bond Level in the Study and the Literature**

In this study, one of the directional hypotheses stated that the level of parental complicated grief following the suicide of their child would be predicted by the level of parental continuing bond. The parental continuing bond level did predict a small amount of parental complicated grief, but the vast majority, 93%, was left unexplained by the parental continuing bond level.

The severity of complicated grief is dependent on the nature of the death, which is usually unexpected, sudden, and traumatic for children, that is, suicide, homicide, accident. These deaths are perceived as complicated by the nature of the death and are accompanied by depressive symptoms, symptoms consistent with PTSD, and other forms of anxiety among parents, that is, panic disorder and phobia.

The research suggests that complicated grief is influenced by grief, guilt (Fielden, 2003; Miles & Demi, 1992; Wijngaards-de Meij et al., 2005), and depression (Murphy et al., 2002; Prigerson, Maciejewski et al., 1995). Suicide also has direct adverse effects on the family as a social unit (Hoogerbrugge, 2002; van Dongen, 1991), which is exhibited in this quote from the study: “Suicide affects the whole family. The guilt, the depression, the questions that are never answered.” One parent also addressed issues associated with intense grief and guilt:

Grief from a suicide is like no other. You feel like when you tell people why your child is dead they are judging you that you didn't see it coming. Your friends can be uncomfortable around you—they feel guilty because they are glad it didn't happen to them. You do a lot of suffering in silence unless you find a good support group. After all this time I still have to pull my car over to cry. I seem to be in a kind of shock and disbelief that I will never see him again and the physical pain of missing him cuts like a knife. I try to stay active but I have developed a strange habit of when I get to my destination I just sit in the car and stare out just not caring about getting out of the car. People have knocked on my window to see if I'm OK. I could write all day and never make it understandable.

Other factors associated with complicated grief are guilt and self-blame, as this mother noted in her comments. This is also an example of the intersection between PTSD and complicated grief:

Yes I found my son 2 days after he completed with a gun. I feel such guilt Even though I know I am not at fault. I am his mother and I should have known something was wrong. I should have been there for him. I carried him for 9 months inside me, gave birth to him and raised him. It's so overwhelming at times it's unbearable. Dad doesn't understand it the way I do. I saw him lay there helpless and gone. Forever!! I have regrets from that day like: I should have kissed him goodbye and told him it's ok, I should have stayed in the room with him and kept the whole thing personal, I just should have handled it differently.

It is evident from this study, that the PTSD and complicated grief survey instruments used in bereavement research may not be able to sufficiently discriminate

between the two concepts. Complicated grief and PTSD items on these instruments are similar; consequently, the conclusions are drawn from data that may be incomplete or erroneous, leading to outcomes that may not be helpful in the treatment of PTSD or complicated grief. The lack of clarity in the instrumentation has been debated in the bereavement literature for decades. Moreover, a common taxonomy for these concepts has not been developed in the field of bereavement.

A prominent group of thanatologists have spoken to this issue by cautioning researchers to carefully consider their findings when instruments are used to measure complicated grief and PTSD in the same study without considering “confounding variables” (Schut et al., 2006, p. 765). Multiple terms are used to describe similar variables, for example, complicated grief, complicated mourning, traumatic grief, prolonged grief, and unresolved grief are among a few of the variables used to research the same phenomenon. Following the same path is the exploration of continuing bonds, attachments, and continuing attachment, all terms for the same or similar phenomena. The close correlation between these concepts continues to create problems of interpretation in this area of bereavement research.

Another controversy has been a long-standing debate within the bereavement community about the omission of a psychiatric code for complicated grief. The resistance to include complicated grief in the *DSM* stems from the belief by nonbereavement researchers that the symptoms may be better described by other disorders, such as depression, and there is a reluctance to pathologize grief, since it is a normal response to a loss. Currently, the APA does not recognize complicated grief as a psychiatric disorder but does provide a “V” code for Bereavement. The “V” code acknowledges an interaction

between various “relational units” or a single unit associated with significant clinical dysfunction and requires psychiatric/psychological intervention (APA, 2000, p. 292).

### **Differences Between Direct and Indirect Methods of Informing of Suicide**

The research question in this study explored whether or not differences occurred between parents who experienced direct observation of the suicide of their child and parents notified by indirect methods. The *t* test analysis suggested there were no significant differences in the parental continuing bond scores between the two groups.

### **Theoretical Framework**

Bowlby’s (1980) Attachment Theory was the theoretical model driving this research. Thanatologists have adopted this model as a means for gaining a more comprehensive understanding of the parental bereavement process. Although other theories have been proposed, attachment theory remains prominent in the literature and therefore was used in this study. This theory proposes that the attachment to the loved one becomes increasingly more complicated when the death involves a child and the death is traumatic and unexpected. This aspect of the theory was reflected in the data obtained from the CBS. The bond (attachment) between the parent and the child was high. The parental responses in the comment section of this study made it evident that the irreplaceable loss of the child contributed to the strong desire of this group of parents to remain attached to their child in whatever ways brought them comfort.

### **Implications for Nurses**

**Implications for nursing practice.** The entry point to a health care system for parents whose child has died by suicide is most likely primary care or the emergency department. The first health care professional the patient usually speaks with is a nurse.



The manner in which the nurse addresses mental health issues is of utmost importance for the patient. If the experience with the nurse is one of openness and acceptance, then the bereaved may be more willing to sharing their grief and the underlying reasons for the visit. Although the nurse may believe addressing mental health issues is time consuming, in many cases, it is time saving. The bereaved will often present to the clinic with multiple psychosomatic symptoms and/or health risk behaviors (i.e., nonadherence to medication) as a coping strategy to avoid the grief (Kivimaki et al., 2002). At times, the bereaved may be fearful of being judged by the health care professional and may refrain from discussing the suicide. The reception they receive from the nurse can open the dialogue and perhaps accelerate the process for the needed referral to a mental health professional, rather than multiple appointments with a primary care clinic or emergency department when a referral for mental health care is what is really needed.

**Implications for nursing education.** Another important factor for nurses working in primary care and other specialties is to include refresher classes addressing mental health issues in continuing education training. In continuing education classes that have this type of content, the nurse would be re-educated about the signs of depression, anxiety, grief, suicidal ideations, posttraumatic stress, and substance abuse. All of these emotions and symptoms are frequently associated with the death of a loved one and, more specifically, a death by suicide. Once the history has been completed, the nurse, in collaboration with other health care providers, can more quickly make a referral to either the mental health provider in the clinic or other mental health facilities.

**Implications for nursing research.** The findings in this study highlight the need for the additional development of instruments used to measure continuing bond, PTSD,

and complicated grief. There is a representation of similar concepts within the items of the instruments examining both concepts (PTSD and complicated grief); this similarity results in difficulty differentiating between these two concepts. Furthermore, additional research regarding predictors of these variables (continuing bond, PTSD, complicated grief), such as time since the death, family history of suicide, and method of suicide, from both a quantitative and qualitative perspective, may help researchers more fully understand both the PTSD and complicated grief phenomena. In addition, a longitudinal study including these variables would also provide clearer understanding about the effects of the suicide over time. Nurses have the unique opportunity to bring a different perspective to this area of research because they take a more holistic perspective, and this holistic perspective may yield clearer results.

Research that includes more men and minorities is also needed. As nurses, we have been educated to interact with others in a nonthreatening and nonjudgmental manner; these skills can provide the ground work to invite men and minorities to participate in research.

**Implications for public policy.** Access to mental health services for those with and without health care is a stumbling block for parents seeking grief counseling and psychiatric care due to the suicide of their child. The current lack of funding for mental health care can result in increased medical expenses and emergency room visits. Nurses are advocates for patients, and advocacy for this group of patients needs to extend to working for better mental health care coverage, as well as a greater awareness of this problem by the general public.

### **Limitations of the Study**

Based on the results of the Cronbach's alpha testing for the three-item CBS, the use of the short version of this scale was the primary limitation of the study. This three-item questionnaire was chosen, in part, because of the limited the number of questions and to limit mental fatigue for the respondents. The use of a more involved continuing bond questionnaire might have prevented the parents from completing the survey due to the number of questions and intensity of items, but it could also have increased the reliability of the results for those who did complete the study survey. In this study, the low inter-item correlation values ranged from .6 to .29 on the three-item CBS, which may have affected the reliability of the scale. The low values indicated that the coefficients for each of the items were weakly related, which may have also affected the validity of the scale, bringing into question whether or not continuing bond was accurately measured in this study with this instrument.

A second limitation was the use of both the IES-R and the ICG. As mentioned previously, the two scales are intercorrelated due to the interweaving of the concepts. To address this, the data analysis plan treated these two concepts separately, but there was a relatively high correlation between the two concepts.

Representation and generalizability are limited in this study because the use of a convenience sample resulted in a lack of male and minority participants (these limitations could be addressed in future studies by stratified random sampling if the resources were available). This study was limited to participants who were computer literate and who had access to a computer, most likely in their homes. Although the participants could

have used library or work computers, this was doubtful because of the emotional content of the study.

### **Directions for Future Research**

There is an extraordinary amount of research on suicide, suicide prevention, suicide postvention, and countless other suicide-related topics. However, research specifically addressing the emotional and psychological nuances for survivors of suicide is a relatively new phenomenon that started in the late 1960s. The emergence of support groups was fostered by the era that promoted “enlightenment” and “self-awareness.” Since the 1960s, research with survivors of suicide has grown but at a slower rate than the research for suicide prevention and other aspects of suicide, such as etiology and neurobiology. There are still so many unanswered questions that need to be researched, and survivors of suicide consistently reach out to be heard and understood, as these parents voiced in this study:

Again, I ask you to please please acknowledge me? Just a simple thank you would be kind. I'd know I've helped even if it's just a little bit. Dan would of wanted me to do this. I do this in memory of my son. (email address eliminated) THANK YOU for allowing me to help you! I will be praying for you and the wonderful work you are doing.

One parent shared her gratitude for being asked about her experience: “Carol, keep up the good work. Very rarely, if ever, do the docs talk to suicide survivors.” Although she identified doctors specifically, other comments from the parents also extended similar reactions to other health care providers, family, and friends.

Although the majority of parents were appreciative of the opportunity to participate in research specifically for the survivors, voice their stories, share information about their children, provide encouragement for additional research, and potentially help

others, one parent did not find value in the survey: “At this point I cannot fathom what is to be gained by this survey.”

Additional research is needed to focus on the effects of continuing bond with each of these concepts in more detail. As it was, parents provided valuable insights when they were given an opportunity to answer open ended questions.

In this study, a little more than one third of the participants reported a family history of suicide, leading one to ponder what effect, if any, the previous suicides had on the continuing bond of the survivors. The research on the effects of suicide on future generations has barely scratched the surface.

The father’s perspective is also imperative and missing in research on the survivors of suicide. Without the voice of the father, half the data are missing, thereby, providing a limited view of the survivors’ experience; because of the lack of male participants, this study did not contribute to further understanding in that area. Lastly, research with parents who witnessed the suicide or found the body of their child is virtually nonexistent. Perhaps this is because less than 5% of the population either witnessed the traumatic death or found the body (Rynearson, 2010).

### **Summary**

This study examined the influence of parental continuing bond on PTSD and parental complicated grief as an outcome among parents bereaved by the suicide of their child. Two major gaps in the literature were addressed through this study: (1) the relationship between continuing bond and PTSD and complicated grief has not been reported in the literature; and (2) the perspective of the of parents who either witnessed or found the body has also been nonexistent in the literature. Although the subcategory of

parents who witnessed the suicide or found the body may be small compared with the total number of suicides, it merits additional research. The collective concepts of continuing bond, PTSD, and complicated grief among this subcategory of parents is an area that needs study and may lead to new findings in bereavement. One parent, who spoke of her daughter, perhaps projected the feelings of this subcategory of parents:

"EXPERTS". . . only talk about depression, or mental illness. My daughter had neither. I know exactly why she committed suicide. People need to know that there ARE other factors! SCREAM! When I write organizations to ask them why they will only consider the 90% that maybe they think can be prevented . . . I rarely get an answer. Does that mean my daughter's life did not matter and her suicide is irrelevant? That is what I get out of the silence"

Furthermore, this mother expressed her frustration with the research process. The reality of conducting research is based on funding from grants and other resources. Funding is often not available for the lesser known issues plaguing survivors, many of whom are left grieving and without answers. Perhaps there may be a way to assimilate these survivors into the greater plan and include their issues in the research.

The value of this research is reinforced by the shared voices of the parents and the gratitude expressed for the opportunity to participate and share the story of their children. This appreciation was consistent with the Dyregrov et al. (2004) study, which showed that parents were more willing to participate in research when they were able to talk about their deceased child. They found the experience both beneficial and cathartic.

Another significant finding in this study is the contribution it makes to the current bereavement literature by supporting many of the concerns already voiced in the literature. Years of bereavement research have yet to result in a consensus on the determinants of PTSD, complicated grief, and continuing bond. This lack of consensus

highlights the complexity of the concepts and the multidimensionality of the human psyche. It also recognizes the depth of the parental psychic wound perpetrated by the death of a child.

## Appendix A

### Recruitment Organizations and Sites

After death communication website  
<http://www.adcrf.org/>

American Association of Suicidology  
 email and post on the listserv  
[SUICIDOLOGY@LISTS.APA.ORG](mailto:SUICIDOLOGY@LISTS.APA.ORG)

American Foundation of Suicide Prevention (AFSP)  
<http://www.afsp.org/>

Bereaved Parents of the U.S.A.  
 P.O. Box 95  
 Park Forest, IL 60466  
 708-748-7672

Befrienders Worldwide  
<http://www.befrienders.org/index.asp>

Compassionate Friends  
 P.O. Box 3696  
 Oak Brook, IL 60522  
 708-990-0010  
[www.tcf.org](http://www.tcf.org)  
[wayne@compassionatefriends.org](mailto:wayne@compassionatefriends.org)  
[nationaloffice@compassionatefriends.org](mailto:nationaloffice@compassionatefriends.org)

Crisis Link  
[Crisislink.org/programs/hope/postvention\\_workshops.html](http://Crisislink.org/programs/hope/postvention_workshops.html)

Daily strength  
[http://dailystrength.org/support-groups/Death\\_Dying/Bereavement](http://dailystrength.org/support-groups/Death_Dying/Bereavement)

Facebook – research component  
<http://www.facebook.com/advertising/#/s.php?init=q&q=bereavement%20research&h&ref=ts&sid=6ae83e77815f59f26c1a1fee8ae9aba7>

Friends for survival, Inc  
<http://www.friendsforsurvival.org/>



Heartbeat/Support for survivors after suicide  
Individual chapters and website

Jason foundation

<http://www.jasonfoundation.com/contact.aspx>

Parents surviving suicide

Doris Walker

Gramsaluv2@aol.com

Psychforums

<http://www.psychforums.com/viewtopic.php?p=117030&sid=cccd608e0d4fbee242b13723281d522>

Psychological Research on the Net

<http://psych.hanover.edu/research/exponnet.html>

PsychTracker

PO Box 82149

Kenmore, WA 98028

seanb@psychtracker.com

Survivors of suicide chat room

<http://www.survivorsofsuicide.com/index.html>

Suicide Prevention Action New Work (SPAN)

<http://www.spanusa.org/>

## Appendix B

### Inventory of Complicated Grief

Please mark the box next to the answer which best describes how you feel right now.

- |    |  |        |           |        |
|----|--|--------|-----------|--------|
| 1. | I think about this person so much that it is hard for me to do the things I normally do. |        |           |        |
|    | Never  | Rarely | Sometimes | Often  |
|    |  |        |           | Always |
| 2. | Memories of the person who died upset me.  |        |           |        |
|    | Never  | Rarely | Sometimes | Often  |
|    |  |        |           | Always |
| 3. | I feel I cannot accept the death of the person who died.                                 |        |           |        |
|    | Never  | Rarely | Sometimes | Often  |
|    |  |        |           | Always |
| 4. | I feel myself longing and yearning for the person who died.                              |        |           |        |
|    | Never  | Rarely | Sometimes | Often  |
|    |  |        |           | Always |
| 5. | I feel drawn to places and things associated with the person who died.                   |        |           |        |
|    | Never  | Rarely | Sometimes | Often  |
|    |  |        |           | Always |
| 6. | I can't help feeling angry about his/her death.  |        |           |        |
|    | Never  | Rarely | Sometimes | Often  |
|    |  |        |           | Always |
| 7. | I feel disbelief over what happened.   |        |           |        |
|    | Never  | Rarely | Sometimes | Often  |
|    |  |        |           | Always |

8. I feel stunned, dazed, or shocked over what happened.  
 Never            Rarely            Sometimes            Often            Always
9. Ever since he/she died, it is hard for me to trust people.  
 Never            Rarely            Sometimes            Often            Always
10. Ever since he/she died, I feel like I have lost the ability to care about other people or I feel distant from people I care about.  
 Never            Rarely            Sometimes            Often            Always
11. I have pain in the same area of my body, some of the same symptoms as the person who died.  
 Never            Rarely            Sometimes            Often            Always
12. I go out of my way to avoid reminders of the person who died.  
 Never            Rarely            Sometimes            Often            Always
13. I feel that life is empty without the person who died.  
 Never            Rarely            Sometimes            Often            Always
14. I hear the voice of the person who died speak to me.  
 Never            Rarely            Sometimes            Often            Always
15. I see the person who died stand before me.  
 Never            Rarely            Sometimes            Often            Always
16. I feel that it is unfair that I should live when this person died.  
 Never            Rarely            Sometimes            Often            Always

17. I am bitter over this person's death.

Never          Rarely          Sometimes          Often          Always

18. I feel envious of others who have not lost someone close.

Never          Rarely          Sometimes          Often          Always

19. I feel lonely a great deal of the time ever since he or she died.

Never          Rarely          Sometimes          Often          Always

## Appendix C

### Continuing Bond Scale

1. How often did you have a sense that the deceased knew what you were doing or that he/she guided you –as if he/she were still around?  
Never   Very frequently   Occasionally   Rarely   Very rarely   Always
2. How often did you take possessions of the deceased as a means to feel “near” him/her or to feel calmed?  
Never   Very frequently   Occasionally   Rarely   Very rarely   Always
3. How often did you feel calmed or supported by recovering particularly memories or thought pertaining to the deceased?  
Never   Very frequently   Occasionally   Rarely   Very rarely   Always

## Appendix D

### Introductory letters



Date: November 13, 2010

To Whom It May Concern:

I am currently working on my PhD. dissertation in Nursing at the University of New Mexico and I am conducting research on parents whose child has completed a suicide. I am requesting this search for participants be published in newsletters and/or on the internet websites so that interested parents may be able to participate in this online research. This research may assist bereaved parents and family, mental health professionals, primary care providers, clergy, and others working with parents grieving the suicide of their child.

This is a web-based survey linking participants to a confidential New Mexico College of Nursing Website link through the University of New Mexico Health Sciences Center: <http://www.mytinyurl.net/0a7a8f>

All participation is voluntary and there will be no survey questions that identify specific participants. Data will be combined into one large group and the information will be only used in this manner so there will be no means of identifying individual participants. The combined data will be shared with my doctoral committee consisting of doctorally prepared nurses and a psychiatrist. In addition, it will result in my dissertation. Lastly, the results of group level analysis may be used to inform other practicing health

care professionals through publications in an effort to educate bereaved parents, family, friends, and professionals.

There are several reasons to exclude participants from the study. These reasons include the following:

1. The participant is not self-identified as a parent of an unmarried child who completed a suicide.
2. The suicide occurred before his/her 10<sup>th</sup> birthday or after his/her 18<sup>th</sup> birthday.
3. The suicide occurred less than 6 months before the start of this study.
4. Individuals who are suicidal or homicidal at the time of the study
5. Suicide was politically or religiously motivated.

Attached you will find copies of the online survey and a copy of the letter to parents that may be shared with potential participants within your organization.

Please feel free to contact me at (505) 385-2441 if you have any questions or comments or you may contact my supervising faculty (Dr. Geoff Shuster at 505-272-5612).

Thank you for your time and consideration.

Sincerely,

Carol Capitano, Ph.D., candidate, CNS  
University of New Mexico College of Nursing  
Albuquerque, New Mexico



Date: November 13, 2010 (Letter to Parent)

Dear Parent,

First, allow me to express my sympathy to you and your family for the death of your beloved child.

My name is Carol Capitano. I am a nursing doctoral student writing to ask for your help in a research study that I believe is important in understanding the different ways parents respond to the suicide of their child. Through this research, I hope to develop a better understanding of the sorrow felt by the parents and improve the health care for survivors.

I have 30 years' experience as a registered nurse. The last 10 years, I have worked as an advanced practice nurse in a psychiatric outpatient clinic. My experience with suicide began with the suicide of my cousin. I witnessed firsthand the severe emotional pain it can cause in families. When I worked as an emergency room nurse, I saw the shock and grief families felt over the suicide of their loved one. More recently, I worked with a young woman whose daughter tragically ended her life. This is when I decided to try and help parents through this research

I am asking you to take part in this study in order to help those of us who are working in health care understand the grief and sorrow you are experiencing. If you agree to take part in this research, it will require about 20 minutes, depending on the detail of your answers (how much you decide to write). There are 4 short surveys that ask how much you agree or disagree with written questions about the death of your child, your grieving process, and if a bond continues with your child. In addition, there are general questions about your background such as age, marital status, and sex. This survey also allows you to write a about your child, if you wish to do so.

There are several requirements for participating in this study:



1. You are the self-identified parent of an unmarried child who completed a suicide.
2. The suicide occurred after his/her 10<sup>th</sup> birthday or prior to his/her 19<sup>th</sup> birthday.
3. The suicide occurred more than 6 months before you being this survey.
4. You are currently not suicidal or homicidal.
5. The suicide of your child was not politically or religiously motivated.

Your informed consent is implied once you begin the study but you may exit at any time or chose not to answer specific questions. Participation is anonymous, since there is no information requested that will identify you. The study is voluntary and without payment. You may stop at any time without consequence.

Thank you for thinking about taking part in this study,

Carol Capitano, Ph.D., candidate, CNS

## Appendix E

### Demographic Questionnaire

1. What sex are you?:                      M      F
2. How old are you?:                      exact age
3. What is your marital status?
  - a. Single
  - b. Married
  - c. Divorced
  - d. Living with partner
  - e. Widowed
  - f. Separated
  - g. Other
  - h. I do not choose to answer
4. Do you consider yourself to be Hispanic/Latino?
  - a. Yes
  - b. No
5. In addition, select one or more of the following racial categories to describe yourself:
  - a. American or Alaska Native
  - b. Your principle tribe (s): \_\_\_\_\_
  - c. Asian
  - d. Black or African American
  - e. Native Hawaiian or Pacific Islander
  - f. White
6. Employment
  - a. Fulltime
  - b. Part time
  - c. Disability
  - d. Unemployed but actively seeking employment
  - e. Other
  - f. I do not choose to answer
7. What is your religious affiliation or spiritual belief ? \_\_\_\_\_
8. What is the highest level of formal education that you completed?
  - a. Grade School
  - b. High School Graduate
  - c. Completed some high school
  - d. College graduate

- e. Some or completed technical/vocational educations
- f. Some graduate or professional education (e.g. M.A., M.S., PhD, MD, JD)
- g. Completed graduate program or professional education
- h. Other
- i. I do not choose to answer

9. How many children under the age of 18 are currently living in your household?

- a. None
- b. One
- c. Two
- d. Three
- e. Four
- f. Five or more
- g. NA
- h. I do not choose to answer

10. Have you been diagnosed with any of the following disorders?

If yes, please check all that apply

- a. Depression
- b. Anxiety
- c. Substance abuse
- d. Posttraumatic stress disorder
- e. Bipolar affective disorder/manic depressive
- f. Schizophrenia or other psychotic disorder
- g. Phobias
- h. Personality disorders: Type
- i. Other
- j. NA
- k. I choose not to answer

11. Other than your child, has anyone in your family died after attempting suicide?

- a. No
- b. Yes

If yes, please choose all that apply

- c. Your spouse
- d. Mother
- e. Father
- f. Sister
- g. Brother
- h. Grandmother
- i. Grandfather
- j. Other
- k. NA
- l. I choose not to answer

12. What were the ages of the children living with you at the time of the suicide? (check all that apply)
- a. 0-5
  - b. 6-10
  - c. 16-18
  - d. other
  - e. NA
  - f. I choose not to answer
13. What was the age of your child at the time of the suicide?
- a. 9 or under
  - b. 10-12
  - c. 13-15
  - d. 16-18
  - e. 19-25
  - f. 26-30
  - g. 31-35
  - h. 36-40
  - i. 41 or over
  - j. I chose not to answer
14. What was the sex of your child?
- a. Male
  - b. Female
15. How many times did your child attempt to suicide before he/she died?
- a. None, this was the first time
  - b. One time before
  - c. 2-5 times
  - d. More than 5 times
  - e. I choose not to answer
16. What form of suicide did your child use?
- a. Drug/poisoning overdose
  - b. Hanging
  - c. Gun
  - d. Motor vehicle accident
  - e. Other
  - f. I choose not to answer
17. Did you witness (see or hear) the suicide of your child?
- a. Yes
  - b. No

- c. I choose not to answer
18. Did you find the body of your child following the suicide?
- a. Yes
  - b. No
  - c. I choose not to answer
19. How long ago did the suicide occur?
20. Where you living in the United States at the time of the suicide?
- a. Yes
  - b. No
  - c. I choose not to answer
21. In what country did the suicide occur?
- a. United States
  - b. Australia
  - c. Canada
  - d. United Kingdom
  - e. Other
  - f. I choose not to answer
22. What information would you like to share about your deceased child, if any?
23. Is there any additional information you would like to share with me?

## Appendix F

### Impact of Event Scale–Revised

Instructions: The following is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you during the past 7 days with respect to the suicide of your child. How much were you distressed or bothered by these difficulties?

1. Any reminder brought back feelings about it.

Not at all            A little bit            Moderately            Quite a bit            Extremely

0                      1                      2                      3                      4

2. I had trouble staying asleep.

Not at all            A little bit            Moderately            Quite a bit            Extremely

0                      1                      2                      3                      4

3. Other things kept making me think about it.

Not at all            A little bit            Moderately            Quite a bit            Extremely

0                      1                      2                      3                      4

4. I felt irritable and angry.

Not at all            A little bit            Moderately            Quite a bit            Extremely

0                      1                      2                      3                      4

5. I avoided letting myself get upset when I thought about it or was reminded of it.

Not at all            A little bit            Moderately            Quite a bit            Extremely

0                      1                      2                      3                      4

6. I thought about it when I didn't mean to.

Not at all            A little bit            Moderately            Quite a bit            Extremely

0                      1                      2                      3                      4

7. I felt as if it hadn't happened or wasn't real.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

8. I stayed away from reminders about it.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

9. Pictures about it popped up in my mind.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

10. I was jumpy and easily startled.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

11. I tried not to think about it.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

12. I was aware that I still had a lot of feelings about it, but I didn't deal with them.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

13. My feelings about it were kind of numb.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

14. I found myself acting or feeling like I was back at that time.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

15. I had trouble falling asleep.

Not at all	A little bit	Moderately	Quite a bit	Extremely
------------	--------------	------------	-------------	-----------

0	1	2	3	4
---	---	---	---	---

16. I had waves of strong feelings about it.

Not at all	A little bit	Moderately	Quite a bit	Extremely
0	1	2	3	4

17. I tried to remove it from my memory.

Not at all	A little bit	Moderately	Quite a bit	Extremely
0	1	2	3	4

18. I had trouble concentrating.

Not at all	A little bit	Moderately	Quite a bit	Extremely
0	1	2	3	4

19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.

Not at all	A little bit	Moderately	Quite a bit	Extremely
0	1	2	3	4

20. I had dreams about it.

Not at all	A little bit	Moderately	Quite a bit	Extremely
0	1	2	3	4

21. I felt watchful and on guard.

Not at all	A little bit	Moderately	Quite a bit	Extremely
0	1	2	3	4

22. I tried not to talk about it.

Not at all	A little bit	Moderately	Quite a bit	Extremely
0	1	2	3	4



## **Appendix G**

### **Introductory Screen**

University of New Mexico College of Nursing

First, allow me to express my sympathy to you and your family for the death of your beloved child.

I am asking you to take part in this study in order to help those of us who are working in health care understand the grief and sorrow you are experiencing.

If you agree to take part in this research, it will require about 20 minutes, depending on the detail of your answers (how much you decide to write). There are 4 short surveys that ask how much you agree or disagree with written questions about the death of your child, your grieving process, and if a bond continues with your child. In addition, there are general questions about your background such as age, marital status and sex. This survey also allows you to write about your child, if you wish do so.

The information you provide may be useful in helping parents and family members who have experienced the suicide of a child. It may also be helpful to health care professionals, clergy, and others who work with grieving families.

People who have taken part in similar studies found answering questions had a positive effect on them and they gained a better understanding into their loss. Some People who took part found it helpful to discuss the suicide without worry about fear of shame or judgment. Other people taking part found it helpful to talk about their child, how they feel, and events that took place around the suicide. However, some of the

questions may trigger memories, sadness or other emotional responses. Included here is an example of three of these questions

1. Have other members of your family completed a suicide?
2. How did your child suicide?
3. What memories of your child would you like to share with me, if any?

This survey is completely voluntary and anonymous. You will not be asked for any identifying information beyond demographic questions (such as age, marital status and sex but not anything about where you live). If you chose not to answer a question, you are given the choice to skip it by clicking on "I chose not to answer." You can also quit the survey at any time by simply clicking the "Exit This Survey" link at the top of the page. There is no cost to you for taking the survey and there is no payment for taking part in the survey.

The final exit screen of the survey provides you with a list of additional support resources related to any sorrow or grief you might feel. If at any time during this process you feel upset or feel you may be a danger to yourself or others please reach out for help and contact 911, a family or friend, a mental health facility, 1-800-Suicide (784-2433), or 1-800-273-Talk (8255).

This study is being conducted by Carol Capitano, a doctoral student under faculty advisement of Geoff Shuster, DNSc, RN. This research was reviewed and approved by the Health Science Center Human Research Review Committee and met national research institutional standards. The research was approved for one year, from December 6, 2010 to November 2, 2011.

For questions about this research, please contact:

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University of New Mexico

College of Nursing

MSC 09 5350

1 University of New Mexico

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(505) 385-2441

Faculty Dissertation Chair:

Geoff Shuster, DNSc, RN

[gshuster@salud.unm.edu](mailto:gshuster@salud.unm.edu)

telephone: 505-272-5612

University of New Mexico College of Nursing

## Appendix H

### Exit Screen

Thank you for your interest and participation in this study. If you were directed to this screen prior to the completion of the study, it is because your circumstances did not meet the study criteria. If you know of anyone else who may be interested in completing this survey please refer them to the New Mexico College of Nursing Website link through the University of New Mexico Health Sciences Center: <http://www.mytinyurl.net/0a7a8f> or they may contact the researcher directly at [ccapitano@salud.unm.edu](mailto:ccapitano@salud.unm.edu). If at any time before, during, or after the completion of this survey you feel you may be a danger to yourself or someone else please reach out for help and contact 911, a family or friend, a mental health facility, 1-800-Suicide (784-2433), or 1-800-273-Talk (8255).

#### References:

US Suicide Hotline and prevention:

1-800-SUICIDE or 1-800-784-2433

1-800-273-TALK

Local university or community mental health center

Foundation for Suicide Prevention

<http://www.afsp.org/>

American Association of Suicidology:

<http://www.survivorsofsuicide.com/index.html>

Befrienders Worldwide

<http://www.befrienders.org/index.asp>

Bereaved Parents of the USA:

<http://www.bereavedparentsusa.org/>

Chat room:

[SUICIDOLOGY@LISTS.APA.ORG](mailto:SUICIDOLOGY@LISTS.APA.ORG)

Compassionate Friends:  
<http://www.compassionatefriends.org/>

Daily strength website associated with bereavement and support:  
<http://dailystrength.org/support-groups/alpha/b>

Griefnet:  
<http://www.griefnet.org/>

Healing hearts for bereaved parents:  
<http://www.healingheart.net/>

Jason Foundation suicide website:  
<http://www.jasonfoundation.com/home.html>

Journey of Hearts: An online healing place for anyone grieving a loss  
<http://www.journeyofhearts.org/grief.html>

After Death Communication website:  
<http://www.adcrf.org/>

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