Bereavement Experience of Female Military Spousal Suicide Survivors: Utilizing Lazarus' Cognitive Stress Theory

By Lindsey M. Mitchell

B.A. in Psychology and Communications, May 2006, Bellarmine Univsersity
M.A. in Rehabilitation Counseling, December 2007, The University of Kentucky

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Dissertation directed by

Kenneth C. Hergenrather
Professor of Counseling

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

The Columbian College of Arts and Sciences and The Graduate School of Education and Human Development of The George Washington University certifies that Lindsey Marie Mitchell has passed the Final Examination for the degree of Doctor of Philosophy as of November, 21 2014. This is a final and approved form of the dissertation.

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Lindsey Marie Mitchell

Dissertation Research Committee

Kenneth Hergenrather, Professor of Counseling, Dissertation Director

Sherry Molock, Associate Professor of Clinical Psychology, Committee Member

Elizabeth Witmer, Assistant Clinical Director Community Counseling Services Center, Committee Member

Dedication

To my big Brother.

Who urged me to move to Washington, DC and begin this incredible journey.

To my Mom.

Who taught me to be true to myself and follow my dreams.

To my Dad.

Who believed in me even when I did not believe in myself.

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Abstract

Bereavement Experience of Female Military Spousal Suicide Survivors:
Utilizing Lazarus' Cognitive Stress Theory

The purpose of this study was to explore the relationship of 5 variables—primary appraisal, secondary appraisal, coping skill, social support, and stigma—to bereavement among women whose military spouses had completed suicide. Correlational analyses determined the separate linear relationships between bereavement and each of the other variables. Four correlations to bereavement (primary appraisal, secondary appraisal, coping skills, and stigma) were significant. Hierarchical multiple regression analysis (Newton & Rudestam, 1999; Tabachnick & Fidell, 2007) assessed the overall relationship of bereavement (the criterion variable) to the 5 predictor variables, along with the unique contribution of each predictor variable. In the regression, 5 of 6 models (all except Model 4) showed significance. This dissertation has practical implications: statistically significant correlations between bereavement and constructs of Lazarus' Cognitive Stress Theory (LCST; Lazarus & Folkman, 1984), as well as the significance of Lazarus' construct of primary appraisal within Model 6, indicate that LCST holds promise for understanding symptoms of bereavement in women whose military spouses have completed suicide. In 2010, the National Institute for Mental Health (NIMH) reported that over 40,000 people committed suicide yearly, with each suicide impacting an estimated 20 people.

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Chapter 1: Introduction

According to the National Institutes of Mental Health (NIMH), suicides in the U.S. military surged to a record number of 349 in 2013. This compares to 295 American deaths in actual combat in Afghanistan in 2012 and far exceeds the 201 military suicides in 2011 (NIMH, 2013). Some private experts predict that the trend will worsen this year. Defense Secretary Leon Panetta referred to military suicide as an "epidemic." In regard to military branches, the Army had the highest number of suicides (n=182) among active duty troops; whereas the Navy and Air Force reported 60 and 59 respectively. The Marine Corp had the largest percentage increase in a period of two years (2008-2010). All branches of the military show record highs (Lamorie, 2011).

NIMH (2010) states that for every person who completes suicide, an estimated 20 people experience trauma related to the death. Thus, the 349 military suicides in 2013 have affected nearly 7, 000 people in just one year alone. The size of this number justifies study of the psychological impact of suicide on survivors. Examining the impact of suicide on surviving family members may provide important information on minimizing negative consequences, including possible survivor suicide. Furthermore, the bereavement experienced by those who lose someone by suicide is often more complex than bereavement suffered by survivors of other types of deaths (Jordan, 2001). The commonly used definition of bereavement is that it is a natural response to a significant loss within the human context (Packman et al., 2006).

Reasons for the increase in suicides are not clear. Key research shows that mental disorders and/or substance abuse have been identified in a majority of people who died by suicide. Studies suggest combat exposure, post-traumatic stress, and financial problems are contributing factors, as are stress load, chronic pain, and disability. Suicide

in the military has been attributed to too few qualified mental health professionals to military personnel, the stigma of obtaining therapy, and family pressures. Military deaths are often sudden, unanticipated, traumatic, and/or violent in nature, and the family is conditioned to anticipate these types of deaths. In contrast, death by suicide is not anticipated and is not handled well amongst military families (Martin et al., 2009).

Historically, the stigma of suicide has been presented in societies through actions that included: suicide corpses were regularly mutilated to prevent the unleashing of evil spirits; suicides were denied burials in church cemeteries; the property of their families was confiscated and put under the control of local agents; and these families were excommunicated from the community (Cvinar, 2005). After a suicide loss, families were required to pay heavy tithes to the church; those who were unable to pay lost their land holdings, causing their pauperization and emigration (Dunne-Maxim, 2007). Such repressive practices no longer apply today in the United States. However, it seems likely that the biggest obstacles families with members who have completed suicide confront are acts of informal social disapproval. The suicide survivor family may be suspected of being partly blameworthy in a suicide death and consequently maybe subjected to informal isolation and shunning (Bleed, 2007).

Today stigmatization can be subtle. It can be manifested in overt actions (i.e., placing blame on the family) taken against the suicide survivor, as well as by omitted actions (i.e., not receiving life insurance), which are probably far more common. When people experience the untimely loss of a family member, they generally expect people to offer comforting and supportive responses. As the expectations to gain nurturing

responses remain unfulfilled, there can be feelings of being offended, wounded, or abandoned (Neimeyer & Jordan, 2002).

Presently, some analysts suggest that the stigmatization experienced by survivors may complicate their bereavement process (Cvinar, 2005; Jordan, 2001; McIntosh, 2003). One early empirical study based on medical examiner records and a mail-back survey of survivors found evidence consistent with these assertions. Reed (1993) found that survivors who were detached (i.e., not living in the same city) from their families were more grief-stricken than other survivors.

Most discussions of suicide stigmatization imply that the suicide survivor is likely to be subjected to greater social isolation and stigma than other survivors of unexpected deaths, such as survivors of accidental deaths or untimely natural deaths. This results in communication issues, social isolation, projection of guilt, blaming of others, and scapegoating (Lindemann & Greer, 1953; Harwood et al., 2002). There is still an enormous gap in the professional literature addressing grief and the care of surviving family members impacted by the death of a loved one (Lamorie, 2011), much less one that is due to suicide.

Suicide within the military culture is a traumatic as well as a unique experience. Service members and their families struggle with the visible and invisible wounds of war and the aftermath that combat deaths leave for the survivors. When a service member's trauma leads to suicide, the military community is less trained and conditioned to process the grief than when death occurs as a direct result of military service (Zhang & Jia, 2009). More information on the grief process needs to be circulated, along with new ways to assist the survivors (Zhang & Jia, 2009). This study aims to add to this literature.

Conceptual Framework

The conceptual framework utilized for this study was Lazarus' Cognitive Stress Theory. This study emphasized Lazarus' underlying construct that times of uncertainty and difficulty, specifically in the form of bereavement, reveal how people cope with the event of loss. Much of the coping literature addresses the idea that all human beings encounter difficult situations and employ strategies for dealing with and lessening perceived stress (Groomes & Leahy, 2002). This is affirmed by the bereavement literature that grief is an individual process that presents differently depending on the environment, person, and death (Callahan, 2000). Antonovsky (1993) maintained that stressors following bereavement are an inherent part of the human experience.

Theoretical Framework for the Proposed Study

Lazarus' Cognitive Model of Stress relates primary appraisal, secondary appraisal, coping, and perceived social support. The Lazarus model was used as the theoretical framework of this study. The model is based on the cognitive theory of stress that was developed by Lazarus and Folkman (1984). Theoretically, stress is described as a stimulus, a response, and a transaction to a stressor such as an environmental condition or a stimulus (Lyon & Werner, 1987). Lazarus (1996) developed a cognitive transactional theory of stress that viewed the person and the environment in a dynamic reciprocal and multidimensional relationship. Lazarus and Folkman (1984) define stress as a person's relationship to his or her environment, specifically a relationship that the person perceives as exceeding his or her resources and endangering well-being. According to Lazarus and Folkman's transactional cognitive theory of stress, the perception of stress is related to the way people evaluate or appraise and cope with difficulties. This indicates

that the greater the perception of stress, the less likely a person will be able to cope with these stressors.

Lazarus and Folkman (1986) stated that a relationship exists between stress (e.g., bereavement) and coping on a perceived outcome. In this study, stress was conceptualized as a relationship, or transaction, between the person and the environment following a spousal death. Based on Lazarus and Folkman's 1984 model, the researcher hypothesized that there would be a relationship between suicide survivors' appraisals, coping, perception of stigma, perceived social support, and the bereavement process.

Stress can be measured by the way an individual appraises a specific encounter. Lazarus and Folkman (1984) define appraisal as an evaluation of a situation in order to determine to what extent a particular transaction or series of transactions between the person and the environment is stressful. Lazarus and Folkman (1984) divide cognitive appraisal into two types: primary and secondary. Theoretically, they define primary appraisal as an individual's expressed concern in terms of harm, loss, threat or challenge (Lazarus & Folkman, 1984). Harm and loss appraisals refer to loss or damage that has already taken place; threat appraisal refers to harm or loss that has not yet occurred (i.e., anticipatory loss); and challenge appraisal refers to the opportunity for mastery or growth (Lazarus & Folkman, 1984).

Secondary appraisals focus on what the individual can do to overcome or prevent harm. Lazarus and Folkman suggest that an appraisal of threat is associated with coping responses and resources that can mediate the relationship between stressful events (e.g., loss of spouse to suicide) and outcomes (e.g., ability to seek mental health services). Coping resources are the personal factors that a person uses to help them manage

situations that are appraised as stressful (Lazarus & Folkman, 1984). Coping resources can be available to the person during the grief process or can be obtained as needed.

The grief process following a suicide, especially of a spouse, is presumed to be stressful and continuously imposes demands on coping as the bereavement process changes and develops. Coping is defined as the cognitive and behavioral efforts that an individual makes in order to deal with specific external or internal stimuli that may be too demanding to be managed by personal resources (Lazarus & Folkman, 1986; Pearlin & Schooler, 1978). Lazarus and Folkman (1984) defined coping as "constantly changing cognitive and behavioral efforts to manage specific external or internal demands that are appraised as exceeding the resources of the person" (p. 141). In addition, coping is described as a dynamic process that is called into action whenever a person is faced with a situation that requires them to engage some special effort to manage that situation (Lazarus & Folkman, 1984). According to Lazarus (1996), resources such as social support can strengthen an individual's position against the stressor and reduce the level of threat. This study examined the relationship between bereavement, primary and secondary appraisal, stigma, coping, and perceived social support.

Purpose of the Study

The purpose of this study was to explore the relationship of five variables—stigma, social support, primary appraisal, secondary appraisal, and coping skill—to bereavement in female spousal survivors of military suicides. The study assessed the extent to which each of these factors influences a survivor's degree of bereavement. The researcher wanted to address the needs of military families facing specific issues associated with the suicide of a spouse. Stress plays a role in the grief process within the

military culture, especially when it relates to suicide. The chief identifying feature of military culture is warfare, which in turn leads to the claiming of human lives (Siebrecht, 2011). Siebrecht argued that bereavement could only be overcome if people adopted a more rational attitude and granted death its natural place in life. Association with the military ensures that most families will have to experience some form of bereavement and many forms of losses during times of war (Auduin-Rouzeaut & Becker, 2002).

Military men and woman are less equipped than the general population when it comes to their culture's acceptance of outward demonstration or sharing of the emotional experience of grief (Doka, 2005). The researcher isolated issues surrounding grief that the literature indicated needed to be addressed (specifically stigma, social support, primary and secondary appraisals, and coping). As research continues to explore the bereavement process within the military community, acceptance of the grief process following a suicide may increase and the stigma surrounding suicide might decrease. This study allowed exploration of various issues related to suicide and grief.

Research Question and Hypotheses

The researcher used Lazarus' Cognitive Stress Theory to conceptualize the following research question and hypotheses:

Research Question

To what extent do five variables—stigma, social support, primary appraisal, secondary appraisal, and coping skill—explain variance in bereavement for women whose military spouse had completed suicide?

Hypothesis 1

What is the relationship between perceived stigma and bereavement in women whose military spouse completed suicide?

Ho: Perceived stigma is negatively associated with bereavement.

Ha: Perceived stigma is positively associated with bereavement.

Hypothesis 2

What is the relationship between perceived availability of social support and bereavement in women whose military spouse completed suicide?

Ho: Perceived availability of social support is negatively associated with bereavement.

Ha: Perceived availability of social support is positively associated with bereavement.

Hypothesis 3

What is the relationship between primary appraisal and bereavement in women whose military spouse completed suicide?

Ho: Primary appraisal is positively associated with bereavement.

Ha: Primary appraisal is negatively associated with bereavement.

Hypothesis 4

What is the relationship between secondary appraisal and bereavement in women whose military spouse completed suicide?

Ho: Secondary appraisal is negatively associated with bereavement.

Ha: Secondary appraisal is positively associated with bereavement.

Hypothesis 5

What is the relationship between the coping skill and bereavement in women whose military spouse completed suicide?

Ho: Coping skill is negatively associated with bereavement.

Ha: Coping skill is positively associated with bereavement.

Stigma was measured by the Stigma of Suicide and Suicide Survivor Scale (SOSASS); social support was measured by the Multidimensional Scale of Perceived Social Support Assessment (MSPSS); primary and secondary appraisal were measured by the Stress Appraisal Measure (SAM); coping skill was measured by the Coping Self Efficacy Scale (CSES); bereavement was measured by the Core Bereavement Item (CBI).

Terms and Definitions

Anxiety. A feeling of generalized apprehension and fear characterized by physical symptoms such as palpitations, sweating, and feelings of stress (American Psychiatric Association, 1994).

Bereavement. The natural response to a significant loss within the human context (Packman et al., 2006).

Coping skill. Those strategies that people use to offset disadvantages in day-to-day life (Osterweis & Green, 1984).

Depression. An illness, involving the body, mood, and thoughts, that affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things (American Psychiatric Association, 1994).

Grief. The natural human response to a significant loss resulting in deep mental anguish (Packman et al., 2006).

Guilt. A feeling of responsibility or remorse for some offense, crime, wrong, and so forth, whether real or imagined (*Dictionary*, 2011).

Mourning. The process that one goes through in adapting to the loss of a person (Worden,

2002).

Multiple regression. A statistical technique that predicts values of one variable on the basis of

two or more other variables (Lussier & Sonfield, 2004).

Pathogenic/complicated grief. Intense reactivity, much like post-traumatic stress disorder (PTSD), when discussing the deceased. Reactivity may be observed in the following expressions: chronic, delayed, exaggerated, or masked grief reactions. Triggers of intense reactivity may include innocuous stimuli, themes of loss, or artifacts of the deceased. Reactivity may be characterized by somatic symptoms related to the deceased's death, prolonged depressive or hypo-manic symptoms, compulsive imitation of the deceased's actions, self-harm impulses, existential phobias, or failure to adapt to current stressors (Worden, 2002).

Post-traumatic stress disorder. A common anxiety disorder that develops after exposure to a terrifying event or ordeal in which grave physical harm occurred or was threatened. Family members of victims of a traumatic experience also can develop the disorder. PTSD can occur in people of any age, including children and adolescents (American Psychiatric Association, 1994).

Primary appraisal. The first step in coping with stress; consists of determining whether an event is a threat (Lazarus & Folkman, 1986).

Psychotherapy. The treatment of a behavior disorder, mental illness, or any other condition by psychological means (Surkan et al., 2006).

Reliability. Yielding the same or compatible results in different clinical experiments or statistical

trials (Pedhazur, 1982).

Secondary appraisal. A person's assessment of the ability of the organism to cope with the consequences of an event (Lazarus & Folkman, 1986).

Service member. Someone who serves in the armed forces; a member of a military force. This term is used interchangeably with military personnel (Callahan, 2000).

Social support. The perception and actuality that one is cared for, or has assistance available from other people, and is part of a supportive social network. These supportive resources can be emotional (e.g., nurturance), tangible (e.g., financial assistance), informational (e.g., advice), or companionship (e.g., sense of belonging). Social support can be measured as the perception that one has assistance available, the actual received assistance, or the degree to which a person is integrated in a social network. Support can come from many sources, such as family, friends, pets, organizations, coworkers, and so forth (Osterweis et al., 1984).

Stigma. The mark of disgrace associated with a particular circumstance, quality, or person (Doka, 2005).

Suicide. The act or an instance of taking one's own life voluntarily and intentionally (Doka, 2005).

Thanatology. The medical, psychological, or legal study of death and dying (Surkan et al., 2006).

Trauma. Any injury, whether physically or emotionally inflicted. "Trauma" has both a medical and a psychiatric definition. Medically, "trauma" refers to a serious or critical bodily injury, wound, or shock. In psychiatry, "trauma" has assumed a

different meaning; it refers to an experience that is emotionally painful, distressing, shocking or life threating, and often results in lasting mental and physical effects (American Psychiatric Association, 1994).

Validity. Establishes whether an instrument measures the underlying construct it is designed to measure (Pedhazur, 1982).

Summary

The reluctance of the military community to seek mental health support contributes to an inability to move through the bereavement process in a healthy way. This study investigated issues surrounding the grief process of military spouses following a suicide in order to capture the grief experiences of this population. The study was grounded in Lazarus' Cognitive Stress Theory, a model that captured the constructs outlined in the literature and that could properly frame the investigation. Conceptual and theoretical framework, purpose of study, research questions, and terms and definitions were articulated in this chapter. The purpose of this study was to explore the relationship of five variables—stigma, social support, primary appraisal, secondary appraisal, and coping skill—to bereavement in spousal suicide survivors in the military.

Next, chapter 2 will present an overview of suicide, issues related to suicide, how suicide impacts the grief process, and the nuances of grief in the military community. The bereavement process, along with the five variables that affect it, will be explored in relationship to the military community. Following that, the impact of suicide on bereavement as well as the issues and needs of suicide survivors and risk factors for survivors is explained. Lazarus' Cognitive Stress Theory will be defined and explored in

relationship to suicide and the military. Chapter 2 concludes with recommendations for future studies.

Chapter 3 presents the hypotheses, research question, and research design. Six variables (stigma, social support, primary and secondary appraisal, coping skill, and bereavement) are defined and explored in relationship to suicide and the military. Chapter 3 concludes with an examination of ethical concerns related to the study as well as a description of the data analyses that were used.

Chapter 2: Literature Review

This chapter presents the topics of suicide, suicide in the military, and bereavement. First, suicide is defined; then the chapter discusses the prevalence of suicide, suicide in the military, the impact of suicide on mental health, and various nuances of suicide and bereavement (i.e., self-blaming, guilt, shame). Next is a description of the bereavement process and a definition of the ambiguous term "grief." The term suicide survivor is defined, and the needs of suicide survivors are presented. The impact of suicide on the military family is then presented, followed by the impact of stigma upon suicide survivors within the military and the importance of social support within the military culture. The effects of social support and stigma on the ability to cope with the loss will be reviewed and explained. A brief history of Lazarus' Cognitive Stress Theory is presented, along with Lazarus' concept of primary and secondary appraisal, in order to explain the theoretical framework of the study. The chapter concludes with a discussion of recommendations for further research on grief and bereavement within the military culture, specifically among suicide survivors.

Suicide

Definition and statistics. Suicide has been defined as the process of purposely ending one's own life (Zamorski, 2011). Religion and culture can influence how a specific society views suicide. For example, many Western cultures, based on mainstream Judaism, Islam, and Christianity, view killing oneself as a negative. Members of these cultures believe suicide is a serious sin against God, thus believing that suicide is wrong (Muselman & Wiggins, 2012). Many of these Western societies (e.g., the United States) believe that if a person claims to be Christian but commits suicide, the authenticity of that person's faith should be questioned (Muselman & Wiggins, 2012).

Most denominations within Christianity (e.g., Baptist, Catholic, Methodist) believe that their life is devoted to God (Kelley & Trinidad, 2012). They believe that they have been made in the image and likeness of God and the decision on when to die is God's and God's alone (Lester, 2008).

Outside of religious beliefs, many misconceptions exist in regard to suicide (Kelley & Trinidad, 2012). One misconception is that suicide is often related to a mental disorder or the result of a mental illness. However, there are circumstances in which suicides are seen as understandable or even honorable such as in protest against persecution (e.g., hunger strike), as part of battle or resistance (e.g., suicide pilots of World War II, suicide bombers), or as a way of preserving the honor of a dishonored person (e.g., killing oneself to preserve a family name) (Rowling, 2008).

However, suicide is not always a result of negative experiences (e.g., a traumatic event, terminal illness). It is important to note that circumstances surrounding suicide are multifaceted and complex (Rowling, 2008). Reasons for suicide do not always appear negative; it is possible for a positive event to elicit undue stress and even suicidal feelings. Individuality of coping abilities makes it difficult to determine what makes events stressful or what might trigger suicidal thoughts and feelings (Rowling, 2008). What may seem relatively trivial to one person may seem devastating to another. Examples of events that represent positive changes but can cause stress include marriage, moving, having a child, and changing jobs. Examples of negative stressors include losses related to health, ending of significant relationships, accruing of debts, and peer pressure to be thin and beautiful. These stressors are labeled as triggers or reasons that people might choose suicide (American Foundation for Suicide Prevention, 2011).

Epidemiology of suicide. Suicide rate is defined as the number of completed suicides in a given demographic, usually expressed as the number of suicides/100,000 population (Segan, 2012). According to the Center for Disease Control (CDC), the overall rate was 11.3 suicide deaths per 100,000 people. The Center for Disease Control (CDC) reported 36,909 suicide deaths in 2009, an overall rate of 11.3 suicide deaths per 100,000 people (CDC, 2009). This suggests that every 14.2 minutes someone in the United States commits suicide, making suicide the eleventh most common cause of death in the United States (CDC, 2009).

When examining the correlates of suicide, it is important to note risk factors. Some risk factors vary with age, gender, or ethnic group and may occur in combination with each other or change over time. Suicide occurs almost twice as often as murder in the United States; it is the third leading cause of death for people 15 to 24 years of age and the second leading cause for people 25 to 34 years of age (National Institute of Mental Health, 2010).

When suicide is examined by gender, it was the eighth leading cause of death for males and the seventeenth leading cause of death for females (CDC, 2009). Women try suicide more often than men, but men are 4 times more likely to die from a suicide attempt. Furthermore, men and women differ in the method used. Research indicates that men tend to choose more violent—and thus more often lethal—methods (e.g., hanging, asphyxiation, and firearms). On the other hand, women are more likely to choose self-poisoning, which can be less lethal (American Foundation for Suicide Prevention, 2011). Among genders, suffocation and poison are the most common methods of suicide. Risk factors for nonfatal suicide attempts by male and female adults include depression and

other mental disorders (e.g., generalized anxiety disorder, bipolar disorder), abuse of alcohol and other substances, and separation or divorce (CDC, 2009).

Races differ in relationship to suicide (NIMH, 2010). African Americans are more likely than Caucasian Americans to select violent suicide methods (e.g., firearms, hanging). However, African American women have lower suicide rates than other women and men in the United States. They may possess suicide buffers, including social support, religion, and negative personal or cultural attitudes regarding the acceptability of suicide (Marion & Range, 2008).

The races that rank highest in reported suicides are American Indian and Alaskan Natives (14.3 per 100,000) and non-Hispanic whites (13.5 per 100,000). The lowest reported suicide rate is Hispanics (6.0 per 100,000) and non-Hispanic Blacks (5.1 per 100,000). Collectively in the U.S., the overall rate of suicide has been increasing since 2000 and is at an all-time high (8.2 per 100,000) since 1994 (American Foundation for Suicide Prevention, 2011).

In places beyond the U.S., poisoning by pesticide was common in many Asian countries and in Latin America; poisoning by drugs was common in both Nordic countries and the United Kingdom. Hanging was the preferred method of suicide in Eastern Europe, as was firearm suicide in the United States and jumping from a high place in cities and urban societies such as Hong Kong Special Administrative Region, China (Ajdacic-Gross et al., 2008).

An recent analysis (Ajdacic-Gross et al., 2008) showed that pesticide suicide and firearm suicide replaced traditional methods in many countries. The observed suicide pattern depended upon the availability of the methods used, in particular the availability

of technical means. The present evidence indicates that restricting access to the means of suicide is preventative (Ajdacic-Gross et al., 2008).

This research emphasizes that suicides occur frequently and are experienced differently according to gender and race. Suicides are performed in both violent and non-violent ways. Therefore, it is clear that suicide is multifaceted and seen differently depending on race and gender. The next section will emphasize that the military culture experiences this type of loss in its own particular way.

Suicide in the Military

Suicide rates among military personnel have been reported as lower than in the general population of the same age and gender distribution (Mahon et al., 2005). There are two exceptions: (a) the UK has reported a modest excess of suicides in younger army men (Fear et al., 2009); and (b) the U.S. Army and Marine Corps have seen a recent climb in suicide rates (DoD, 2010), bringing these rates above the civilian rates. However, suicide is increasingly an issue within the military culture. In 2008, the DoD reported that the number of suicides among service members in the U.S. Army rose for the fourth year in a row. For example, during the first seven months of 2011, there were 116 suspected suicides among active-duty soldiers, compared to 165 suicides for all of last year (Jenkins & Schmitz, 2012).

U.S. veterans accounted for 20 percent of the more than 30,000 suicide deaths in the United States in 2009. Between 2003 and 2009, approximately 6,000 veterans committed suicide annually, an average of 18 suicides each day (Congressional Quarterly, 2010; DoD, 2010). During the 2009 fiscal year, 707 members of the veteran

population committed suicide, and another 10,665 made unsuccessful suicide attempts (DoD, 2010).

Certain experiences of military service members (e.g., exposure to violence, act of killing of the enemy, risk of injury, exposure to trauma) increase suicidal tendencies (Zamorski, 2011). In addition, most service members have access to firearms, a common means of suicide. The unique role of military officers may also serve as a special barrier to accessing mental health care; if military officers seek support for mental issues, there could be repercussions for their military career. Military personnel also fear not being able to return to combat after experiencing mental health problems or being labeled as "unfit to serve" based on mental instability (Zamorski, 2011).

Factors with military suicide. The broad range of risk factors, protective factors, and triggers reported for civilian suicides also apply to military personnel. Research on military suicides has identified the prominent role of mental disorders (e.g., post-traumatic stress disorder, adjustment disorders, depression, and anxiety) as a risk factor. However, the fraction judged to have a mental disorder may be lower than that seen in civilian studies (Army Suicide Prevention Task Force, 2010). Post-traumatic stress disorder (PTSD) is an independent risk factor for suicidal ideation and attempts, but there is no clear evidence of a higher level of completed suicides (Panagioti et al., 2009). The picture of suicide, reasons for suicide, and impact of suicide in the civilian population is complex, and being affiliated with the military only increases the complexity of suicide based on the nature of military service and exposure to violence. Suicide in the military is increased due to the lifestyle of this culture (e.g., exposure to warfare, death, separation from family, high prevalence of PTSD) (Hawton et al., 2009). The military lifestyle often

leads to failure of intimate relationships, a common trigger for suicide. Experiences of military personnel that can trigger suicide include financial problems, legal problems, work stress, and the imposition of medical employment limitations (Army Suicide Prevention Task Force, 2010; Fragala & McCaughey, 1991; Hawton et al., 2009). U.S. Army and Marine Corps personnel often experience higher degrees of exposure to warfare and thus are at an increased risk for suicide. The same is true for those personnel in high security and combat work based solely on the nature of the job and exposure to specific environments (Helmkamp, 1996). In contrast, protective factors to reduce suicide include effective clinical care for mental, physical, and substance abuse disorders; easy access to a variety of clinical interventions and support; restricted access to lethal weapons; strong connections to family and community support; and skills in problem solving, conflict resolution and nonviolent handling of disputes (Hawton et al., 2009). These protective factors are not made readily available for military personnel and are counterintuitive for this culture. When these protective factors do not exist, suicide risk increases.

Based on the suddenness of suicide and the aftermath of the suicidal experience, the bereavement process for those left behind (e.g., family members) can be complicated. By defining and exploring the bereavement process, we can begin to focus on the complete impact of suicide on bereavement.

Definition of Bereavement and the Bereavement Process

Within the literature on grief and bereavement, many terms are used, some interchangeably. It is imperative to define the various terms used in thanatology in order to clarify which responses will be addressed within this study.

In the most general sense, the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition-Text Revision* (*DSM-5*) classifies several specific reactions comprising bereavement (Packman et al., 2006). These include cognitive disorganization (e.g., confusion, preoccupation, and disrupted identity) and dysphoria (e.g., emotional lability, anger, instability, pining, yearning, and loneliness). In the *DSM-5,* a diagnosis of bereavement also includes health deficits (e.g., behavioral and physical complications, decreased psychological and immune system functioning, and increased mortality rates) and social-occupational withdrawal and isolation (e.g., noticed negative effects on others, role disruption, and difficulty in starting new relationships). The commonly used definition of bereavement is that it is a natural response to a significant loss within the human context.

Within the suicide literature, the terms grief and bereavement often are used interchangeably. However, there is a subtle difference between the two words. Bereavement addresses the response to the physical death of a person. This term is used to identify the specific reactions experienced by someone following the death of another person. Grief is the internal process of redefining one's view of oneself and then how one views the world. The term grief can also be used to address the incident of loss not involving death (e.g., loss of job, loss of a limb, loss of status (Packman et al., 2006).

Thus the term bereavement is appropriate in reference to the process a surviving spouse undergoes after losing a service member to suicide. The term bereavement process will refer to the experience of the spouse throughout the proposed study. Now that the bereavement process has been defined and various types of bereavement have been explored, a review how different people demonstrate their bereavement, depending

on their culture, follows in order to bring the theory- based bereavement process into a more practical analysis.

Impact of Suicide on Bereavement

Grief is a natural response to human loss. Each loss is unique and requires various supports for a person to recover in a healthy way (Kubler-Ross & Kessler, 2001). It is not possible to generalize the way that grief affects individuals. Frequently, discomfort exists, and there is often an avoidance of discussing the pain and heartache that individual survivors experience in the shadow of sudden and traumatic loss (Agnew & Duffy, 2009).

The death of a loved one is a challenge, whether it comes without warning or after a long struggle with illness (Steel et al., 2011). But several circumstances set suicide apart from other types of death (e.g., homicide, accidental death) and make the process of bereavement unique and complex. The suddenness of suicide, violent behaviors associated with suicide, and often its unexpectedness complicate the bereavement as well. The spouse, family members, or other survivors who experience the loss have diverse needs and varying levels of resilience (Agnew & Duffy, 2009). The expression of normal grief is evident through emotional, cognitive, physical, and behavioral responses.

Normal and abnormal responses to bereavement span a spectrum in which intensity of reactions, presence of random grief behaviors, and time course determine the differentiation. A consistent criticism in the literature is that there have been too few studies to provide meaningful support for a coherent theory of the mechanisms of bereavement following suicide (Cvinar, 2005).

The initial challenge of suicide bereavement is to determine the differences between suicide and natural death in terms of the subsequent bereavement (Worden, 2009; Bonanno, 2004). A view of the uniqueness of suicide bereavement is taken by Worden (2009). He states, "In our society, there is a stigma associated with suicide" (p. 94). He goes on to correlate the stigma with the intense experience of shame following suicide. This shame can result in the complete isolation of the bereaved during the period immediately following the suicide event.

Jordan (2001) researched suicide bereavement and concluded that there are several underlying reasons that it differs from other types of mourning. Jordan summarizes that "there is considerable evidence that suicide survivors are viewed more negatively by others and by themselves" (p. 93) and suicide "is distinct in three significant ways: the thematic content of grief, the social processes surrounding the survivor, and the impact suicide has on family systems" (p. 91). In reviewing the social processes surrounding suicide, Jordan's analysis supports those of Worden (1991) and Ness and Pfeffer (1990), saying "there is considerable evidence that survivors feel more isolated and stigmatized than other mourners, and may be viewed more negatively by others in their social network" (p. 93).

Both Knieper (1999) and Jordan (2001) suggest that common elements of the bereavement process include profound sadness, pining, depression, altered identity, negative health outcomes, loneliness, and the withdrawal of support networks. On the other hand, emotional experiences that are unique to suicide survivors include anxiety, fear, shock, numbness, blame, anger, guilt, shame, depression; feelings of isolation,

betrayal, and powerlessness; desire for revenge; obsessive-compulsive thoughts; personality changes; and emotional regression (Harris-Lord, 2006).

Suicide survivors have to address the fact that a loved one has committed an act that resulted in a sudden, unexpected, and often violent death. This event can leave the surviving family members to reassess a new world without the decedent (Attig, 2001). This may affect the survivors physiologically, physically, emotionally, socially, and financially.

Most traumatic death survivors will face questions regarding their own culpability in their loved one's decision to take their own life. Survivors may find themselves repeatedly pondering missed warning signs and risk factors (Parish & Tunkle, 2005). Four primary factors that distinguish the complexities of suicide bereavement for families include stigma, questions about reasons, issues of remorse and guilt, and various logistical and legal factors unique to suicide that necessarily influence the events and processes following death (Minois,1999). The question of "why" often comes up given the pervasive sense that suicide is a preventable event. This can often define the grief process. Combined with factors of shock from the sudden, often violent nature of the death, these questions are virtually unavoidable. In some cases, answers to questions of why may never be forthcoming or satisfactory (Steel et al., 2011).

In addition to this normal pattern of grief, research suggests that loss by traumatic means predisposes the survivor to the combined influences of loss as well as trauma. The manner in which a person dies can have a profound impact on survivors. Literature suggests that those affected by the sudden death of a loved one or family member are

highly vulnerable to psychological trauma. This includes death by suicide (Doka, 1996; Green, 2003).

Shock and numbness are typical responses in the beginning of the bereavement process. Sudden traumatic death can often bring dramatic change to a family system (e.g., financial earnings, division of household operations, and structure of the family system). These changes bring about an unexpected and often unwanted need for evaluation and restructuring of roles (Clements & Henry, 2001). Sudden and traumatic death allows no anticipation or preparation for the loss. In order to regain control, individuals will often try to regain some type of normalcy. Individuals often hold to the belief that if homeostasis for both the individual and the family system can be achieved, the loss can be erased (Clements & Burgess, 2002). Grief responses are not right or wrong; however, sudden attempts to regain control can often be only a short-term solution to the larger impact of the loss. Without the ability or time to prepare mentally and emotionally, the survivor can be overwhelmed by an emotional wave following suicide (Clements & Henry, 2001).

When the loss is attributable to a suicide, the risk of psychiatric and somatic morbidity may be even higher (De Groot et al., 2006). Jordan (2001) suggested that suicide bereavement is characterized by specific issues like the question of why the suicide occurred, guilt, taboo, and self-blame. Being stigmatized by themselves as well as others, suicide survivors are less likely to seek or receive social support. Additionally, suicide often has a distinctive impact on family systems. These conflicts are due to different coping styles and family disruption that occur more often among suicide survivors than among people bereaved by natural causes (Jordan, 2001; De Groot et al.,

2006). It can be hypothesized that suicide-bereaved relatives, including spouses, constitute a vulnerable group of mourners (De Groot et al., 2006).

After the initial reaction to the sudden loss of a family member or other loved one, grief can begin to be expressed. Survivors, both military and civilian, may exhibit internalized responses that may be expressed in the form of depression, avoidance, withdrawal or externalized traits that may consist of anger or outbursts (DeRanieri et al., 2002). Survivors are more likely to find themselves saddened during the holidays and special occasions or as they near the anniversary date of the loss (DeRanieri et al., 2002). These are appropriate and common times for thoughts to be drawn to the loved one who was lost or to the loss itself.

Survivors may recognize that they have completed the bereavement process to some extent once there is a reinvestment in life. As healing progresses, the sadness will decrease but usually does not disappear completely. It is important that the memory of the decedent remain, at some level, with the survivor. The survivor can understand the changes created by the loss and determine how to reinvest in life. Grief is a process, not an endpoint (Clements & Henry, 2001).

Grief as applied in military culture. Previous studies have indicated that military service may be a risk factor for suicidal behavior. For instance, the most common type of traumatic death suffered during military training is suicide (Scoville, Gardner, & Potter, 2004), and male veterans are twice as likely to die by suicide as male nonveterans in the general population (Kaplan et al., 2007). The recent increase in suicide exceeds that among nonmilitary populations and suggests that combat exposure might be an important factor contributing to death by suicide (Bryan et al., 2010).

Warfare repeatedly evokes victims' pain as a topic of general social interest. Reflecting on war and death in 1915, Sigmund Freud predicted that dealing with wartime fatalities would pose a major social challenge for society (Freud, 1915). Due to the vast scale of World War I and its enormous number of casualties, death had suddenly become an inescapable reality of daily life within the military. Approximately 100 years later in the U.S., the numbers of those grieving for the fallen continues to rise each time our country enters into war. Siebrecht (2011) argued that bereavement could only be overcome if people adopted a more rational attitude and granted death its natural place in life. Most military families will have to experience some form of bereavement and many forms of losses based on the contextual factor of military culture (Auduin-Rouzeaut & Becker, 2002).

Among military families, bereavement is complex. A military death often has circumstances not normally found in the civilian world. It is most likely unexpected, potentially traumatic, occurring in another country, publicized by the media, and enveloped in the commitment to duty and country. Family members of military personnel are often parents, siblings, grandparents, and spouses. Military widows are young, often with young families, and are living at a duty station, far away from family and long-time friends (Katzenell et al., 2012).

Grief is a part of the military culture but is often misinterpreted as a weakness that will elicit limited outside support. Military men and women in general are uninformed about the cultural acceptability of outwardly demonstrating their grief or sharing the emotional experience of the loss (Doka, 2005). Although traditional mental health treatments predominantly encourage emotional vulnerability, the military culture values

emotional toughness (Lee, 2003) and stigmatizes mental illness (Doka, 2005). These attitudes can often deter service members from seeking assistance that could help them to overcome physical and mental health issues.

Demonstration of grief. To understand the bereavement process of a person, it is important to compare cultures in terms of the ways it is demonstrated. Koenig and Davies (2003) describe grief as a social rather than individual response to loss, a response that may vary across ethno-cultural lines. Recovery from bereavement in one culture may differ considerably from recovery in another. In research on the evolution of therapy in the United States, Cushman (1995) asserts that how a person views him- or herself can impact the healing process. Postmodern society's erosion of social ties and community values has contributed to the construction of an ''empty self'' and a view of recovery that emphasizes individual ''expansion and growth" notions which lie in sharp contrast to the ethos of self-domination that characterized healing during the more repressive 18th century (Cushman, 1995).

Elizabeth Kubler-Ross (1969) developed a theory of grief consisting of several stages However, Stroebe and Schut (2001) advocated a more fluid conception of grief emphasizing the twin needs of grieving and avoidance of grief. Bereavement research has broadened to include many diverse groups of grievers and types of losses. Research has attempted to engage with the larger social context and underlying assumptions that are part of the response to death and loss in Western society, including the inability to function in society, complete simple tasks, engage in interpersonal relationships and contribute to society (Parkes et al., 2001). Within society, children grieve differently than adults, and their grief is often behavioral (e.g., acting out, bursts of anger, resistance to

authority figures) (Silverman, 2000). Grief responses also differ by gender. Males tend to grieve in an action-oriented manner and use the grief responses to perform tasks or physical activities. In contrast, females typically grieve with emotional responses and need time to process the feelings associated with grief. Females are more likely to turn to their peers for comfort and validation of their feelings (Doka & Martin, 2002; Golden, 1996; Hockey, 1997; Lund et al., 2010; Staudacher, 1991). It is now known that grief may continue for a long time as a relationship with a deceased loved one continues beyond the physical death (Klass, Silverman, & Nickman, 1996). Furthermore, adjustment to loss depends upon a wide variety of responses, based upon many factors. These factors can be both external (e.g., finances, employment, household chores) and internal (e.g., guilt, anger, sadness) (Stroebe, et al., 2001; Worden, 2009).

Mental health in the military. It is also important to discuss how grief can impact military culture, including mental health. According to the Pentagon 2010 Mental Health Survey (2010), 31% of Marines, 38% of all soldiers, and 49% of the National Guard reported experiencing mental health issues. These included anger, depression, psychological trauma, sleep disturbances, and alcohol abuse after returning home. Diagnoses for mental disorders among active-duty troops have increased 65% in the past 12 years (DoD, 2011). In 2009, a total of 1,224 soldiers were diagnosed with a mental disorder, such as post-traumatic stress disorder, and received a medical discharge— an increase from 745 soldiers in 2005. Among these soldiers, the most common diagnosis was adjustment disorder, which accounted for over 45% of discharges (DoD, 2011). The *DSM-5* defines adjustment disorders as short-term emotional or physical responses to an external stressor, such as sadness, acute anxiety, worry, or difficulty in sleeping. At the

time of the latest Department of Defense (DoD) report (2010), adjustment disorders were the top mental health diagnoses among troops seen at military treatment facilities.

From 2000 to 2011, a total of 936,283 service members were diagnosed with at least one mental health disorder (e.g., post-traumatic stress disorder, adjustment disorder, depression, anxiety); nearly half of that number were diagnosed with more than one (Medical Surveillance Monthly Report, 2012). During the same 12 year period, rates of mental health incident diagnoses were highest in the Army. In 2011, the Army's rates were nearly twice the second-highest service, the Marine Corps. The Army had 12,000 such incident diagnoses per 100,000 "person years," while the Marine Corps had roughly 6,000, followed by the Navy and Air Force, with 5,000, and the Coast Guard with 4,000.

In terms of gender, women presented higher frequencies of mental health discharges than men and were more than twice as likely to be diagnosed with an adjustment disorder, personality disorder, anxiety, or schizophrenia. They were also more likely to be diagnosed with depression. However, men had higher rates of substance abuse and post-traumatic stress disorder than their female counterparts (Medical Surveillance Monthly Report, 2012).

According to the Medical Surveillance analysts (Medical Surveillance Monthly Report, 2012), a diagnosis of adjustment disorder was the cause for discharge among 6,492 Army personnel during the period from 2008 to 2010; the Air Force discharged 1,821 personnel between 2007 and 2010; and the Coast Guard discharged 166 from 2009 to 2010. All were fiscal years. These figures do not include service members who sought private care or were seen at a forward-deployed clinic for adjustment disorder or those diagnosed with any disorder other than adjustment. The data also did not account

for incorrect medical codes in records or incorrectly transcribed diagnoses. The DoD did not release numbers for the other branches and years (Christensen & Yaffe, 2012).

Military culture affects the impact of suicide on families. Each spouse and family has a different bereavement process, and this process is influenced by stigma, social support, and ability to cope. In the U.S. military, these issues can be a hindrance to seeking services and can lead to feelings of isolation, which in turn are a risk factor for suicide (Christensen & Yaffe, 2012).

Stigma. Stigma has been defined as associating negative qualities with a specific situation or group of people. It refers to a cluster of negative attitudes and beliefs that motivate the general public to fear, reject, avoid, and discriminate against a specific group of people or situation (Crocker & Major, 1989; Christensen & Yaffe, 2012). For the purposes of this research, stigma will refer to negative opinions, attitudes, and beliefs held by the public in relationship to mental health disorders and suicide.

The negative association with mental disorders deters survivors from seeking assistance. Responding to stigma, people with mental health problems internalize public attitudes and often become embarrassed or ashamed. This can lead people to want to conceal symptoms and fail to seek treatment (President's New Freedom Commission Mental Health, 2003).

A recent study by Eaton et al. (2008) investigated the correlation of suicides, stigma, and the prevalence rates of mental health issues among deployed soldiers. Concerns about stigma were highest among the soldiers who experienced mental health issues for over a year (Eaton et al., 2008). Soldiers screening positive for a mental health

disorder reported more barriers to care and were twice as likely to report concerns about stigmatization as those screening negative for mental health disorders (Hoge et al., 2004).

Within the military, servicemen and women are taught to function as a self-reliant part of a team (Quick et al., 1996). From basic training to the first duty assignment, soldiers are conditioned to be physically strong and mentally tough and are presented as "macho" in the military culture (McFarling et al., 2011). As a consequence, people in the military frequently adopt what is described as a "masculine warrior" identity marked by avowal of invulnerability and courage; disavowal of weakness and discomfort; and extreme independence (Dunivin, 1994). This ethos is exemplified by such military service marketing slogans as "Army Strong" and "The Few, the Proud, the Marines." There is also a systemic stigma, deeply rooted in military tradition, associated with showing weakness. The value placed on strength within military culture creates the risk of being stigmatized for being weak or out of control. Weakness in the military is perceived as unacceptable (McFarling et al., 2011).

Because of the high value placed on self-reliance during military training (Brooks et al., 2001), a strong stigma on mental disorders is common within the Armed Forces (Pietrzak et al., 2009). Seeking and receiving mental health treatment is associated with a high level of stigma and shame within the military (Milliken, et al., 2007). One in five veterans screen positive for a mental health impairment (e.g., adjustment disorder). Of those who screen positive, less than 40% seek treatment. Service members express real and perceived fears that notations in their military records about the use of mental health service will result in stigma that will prevent them from completing missions, being

redeployed, or receiving an earned promotion (Greene-Shortridge, Britt, & Castro, 2007). This stigma can apply not only to the service member but to the member's family.

Military personnel's reluctance to ask for help reflects not only stigma but also the military culture's high regard for the development of close, in-group bonds fostered by shared experiences (Mental Health Advisory Team (MHAT, 2003). Soldiers hesitate to access the mental health system and are three times as likely to turn to each other first for support and encouragement as they are to access professional services (MHAT, 2003).

The mental "toughness" or "warrior ethos" typically extends to the spouse and family system as well (McFarling, 2011). While trying to respect the military culture and toughness ingrained in this culture, military service members and their spouses are sometimes unwilling to ask others for psychological help (Pietrzak et al., 2009). Due to this trend, self-reliance may be particularly relevant for current and former service members and their spouses living with mental health problems or suicidal thoughts. Attitudes toward treatment among active duty service members and their spouses are understandably influenced by the military environment in which they live and work (McFarling et al., 2011).

Research has shown that the health and well-being of military spouses is important, both to the individual family and to the operational unit. Spouses who perceive the military lifestyle to be stressful often show less overall positive mental health and are more vulnerable to distress. Eaton et al. (2008) investigated barriers to treatment encountered by 940 spouses who screened positive for mental health problems. The most commonly reported barriers to seeking care were practical ones, including difficulty in

getting time off from work or getting child care (43.1%), difficulty getting an appointment (26.0%), and cost (26.0%). Twenty percent reported that receiving care would be too embarrassing, and 22% reported that they would be seen as weak (Eaton et al., 2008).

Stigma in any form diminishes individual, familial, and military effectiveness. Moreover, as stigma continues to create barriers to treatment, dramatic changes will be required to make it acceptable for service members and their spouses to receive treatment. Effectively removing barriers to treatment will also entail a change in military culture (McFarling et al., 2011). Stigma in bereavement is altered when a suicide occurs due to cultural views and varying opinions on suicide (Pietrzak et al., 2009).

Social support. Social support refers to the various types of care (i.e., assistance/help) that people receive from others. In a general sense, it is an individual's feeling of belonging to a social network of friends, family, or community that one can turn to for advice and assistance in times of need (Uchinao, 2006). Uchinao classifies social support into two major categories, emotional and instrumental. Emotional support refers to the things that people do that make one feel loved and cared for and that bolster one's sense of self-worth (e.g., talking over a problem, providing encouragement, giving positive feedback). This type of support typically takes the form of non-tangible types of assistance. By contrast, instrumental support refers to the various types of tangible help that others may provide (e.g., helping with child care, assisting with housekeeping, providing transportation, helping with financial burdens) (Uchino, 2006).

Types of social support. Interpersonal emotional support is the most recognized form of social support; however, it is not the only type. Instrumental social support can

provide assistance to grieving families. Informational support (i.e., providing information about a relevant topic) and appraisal support (i.e., suggesting alternate ways of viewing the death) are also forms of social support (Stylianos & Vachon, 1993).

While research has emphasized the importance of social support, few studies have assessed its relationship to grief outcomes (Callahan, 2000). Pennebaker and O'Heeron (1984) found that bereaved spouses who confided in others had fewer health problems than their counterparts. Reed (1993) found that suicide survivors who received more "expressive support" (e.g., meaningful conversations with peers, outward displays of affection) felt closer to their families, and this experience lowered levels of grief. These two authors have indicated that the quality of this type of support is more important than the quantity (Callahan, 2000).

Most bereavement researchers and practitioners believe that support from family and friends is one of the most important moderators of bereavement (Stroebe et al., 2005). People with strong social support are less likely to experience negative symptoms of physical and mental health issues. This belief has provided the basis for social support programs for grieving populations (Patton, 1996).

In the realm of social support, studies have suggested that informal social support during the process of bereavement is beneficial. The need for social support has been recognized, in theory, for survivors of suicide. However, Farberow et al. (1992a) found that survivors of suicide received less support than survivors of natural death. The need for and lack of social support are common recurring themes in grief research. There is scant research into the experiences of potential supporters, particularly why people often tend not to acknowledge another person's loss and may even avoid contact with a

grieving person altogether (Jeffreys, 2005). So, although we know that social support is an important part of the grieving process, we do not necessarily understand the factors that either hinder or facilitate giving of support to the bereaved (Bath, 2009).

Research suggests there are specific reasons why survivors do not seek out social support. McMenamy et al. (2008) identified depression and a lack of energy as substantial barriers to obtaining social support. Over one third of participants reported moderate to high levels of difficulty with the two following areas: the lack of information available about where to find resources (45%), and the lack of availability of actual resources (34%). Several participants indicated that lack of trust in professionals and a reluctance to ask for help were major barriers in obtaining support.

Depression and lack of energy make many survivors less willing and able to initiate the need for social support. People who experience a traumatic event are more likely to perceive barriers and not request medical and mental health services due to this lack of energy, lack of trust in professionals and depression (Amaya-Jackson et al., 1999). Thus, one of the reasons assistance is needed becomes an important barrier to receiving help.

Another reason that social support is difficult to receive is the survivor's internalizations of shame and guilt. Provini et al. (2000) state that the stigma and social isolation that survivors experience can interfere with seeking social support and the willingness of social support networks to come to the aid of the survivor. These researchers recommend that assistance be repeatedly offered to survivors to meet the changing needs of the bereaved population. The devastating loss and the energy drain

make it impossible for many bereaved to continually evaluate their own and their children's changing needs for help.

Inability to express a need for social support often coexists with bereavement-related depression. Focusing on the quality and quantity of social support can help to reduce feelings of loneliness and isolation, which in turn can reduce depression (Hainer, 1988). These findings are consistent with research suggesting that social contact is important for positive physical health and well-being (House, et al., 1988) and that support received from others (i.e., emotional support and instrumental help) buffers the stress associated with bereavement.

A lack of social support can increase depression, a lack of energy to complete daily tasks, and isolation. Limited social support is especially common for suicide survivors. Shame and guilt surrounding a suicide can impact the ability for survivors to seek social support; however, high social support can be linked to positive mental health. This highlights the importance for suicide survivors to feel supported, and having this social support can reduce stigma.

Coping skill. Although it is important to become familiar with the stress appraisal process of suicide survivors, how they assign meanings of the death of their loved one, and their past experiences, it is equally important to apply a theoretical model of coping that incorporates the role of primary appraisal into the overall coping effort. One such model is the transactional model of coping (see *Appendix, Figure A1*), created by Lazarus and Folkman (1984). According to these authors, people manage both internal and external demands; when these demands are especially taxing or exceed their resources, people employ a coping process. Characteristics of both the person and the environment

contribute to the meaning that a person assigns to a specific event. (In this study, the specific event is the death of a spouse by suicide.) This model of coping implies that a person's attribution of person-environment interaction to a specific event naturally evokes a coping response for effectively dealing with the taxing situation. One factor that may cause demands to exceed a person's resources is experiencing a suicide, especially in social environments that hinder, stigmatize, or isolate survivors. The transactional model of coping explicitly attempts to explain how people manage themselves at times when internal and external demands exceed their resources. It would be enlightening, therefore, to apply this theory to the stress appraisal process of suicide survivors, who sometimes face a multitude of taxing situations.

Coping is defined as behavioral or cognitive efforts to manage situations that are appraised as stressful (Lazarus & Folkman, 1984). Literature on coping, including the transactional model of coping, has further defined specific types of coping responses, or coping strategies, that vary according to a person's method of dealing with stress. Although researchers differ in naming these types, the most popular coping dispositions are problem focused, emotion focused, and avoidance (Billings & Moos, 1984; Lazarus & Folkman, 1984). Problem-focused coping, also named task-focused coping, involves responses that focus on changing problematic aspects of stressful events (Paterson & Neufeld, 1989). Emotion-focused coping, also known as response-directed coping, involves responses that focus on managing emotional reactions to stressful events (Paterson & Neufeld, 1989). Problem-focused coping aims to lessen the effects of the original trigger; emotion-focused coping aims to lessen the heavy impact of the stress

response; avoidance, or appraisal-directed coping, aims to cognitively alter the perception of the stressor (Paterson & Neufeld, 1989).

Stress and coping theory defines stress as a person-environment relationship that is evaluated as personally significant and as exceeding a person's resources for coping. This evaluation process is called primary appraisal. An additional step involves secondary appraisal, or the appraisal of options for coping, leading to the choice of a coping strategy (Lazarus & Folkman, 1984). Secondary appraisal refers to the question "What can I do?" A key aspect of secondary appraisal is the judgment concerning the extent to which the individual can control the outcome of the situation. Feelings of self-efficacy contribute to this judgment, which in turn influences coping (Park & Folkman, 1997). Maladaptive coping (i.e., coping that fails to regulate distress or manage the underlying problem) occurs when people respond to uncontrollable stressors primarily with problem-focused coping strategies, or when people respond to controllable stressors primarily with emotion-focused coping strategies (Strentz & Auerbach, 1988; Vitaliano et al., 1990). Adaptive coping refers to situations in which the controllability of the stressful situation fits the choice of coping strategy (i.e., emotion-focused versus problem-focused). When people obtain a fit between stressful events and their coping strategies, they experience fewer psychological symptoms than when there is a lack of fit (Park, Folkman, & Bostrom, 2001).

Cognitive behavioral interventions, such as coping effectiveness training (CET) (Chesney, 2003a; Chesney et al., 2003b; Chesney, Folkman, & Chambers, 1996; Folkman & Chesney, 1995), are based on social cognitive theory (Bandura, 1997), as well as stress and coping theory (Lazarus & Folkman, 1984). Cognitive behavioral

interventions strive to increase adaptive coping and by doing so reduce psychological distress and improve well-being (Bonanno et al., 2005). Perceived self-efficacy, defined as a belief about one's ability to perform a specific behavior, is a pivotal component of social cognitive theory, which states that beliefs in one's personal efficacy determine the acquisition of knowledge on which skills are founded (Bandura, 1997). According to social cognitive theory, beliefs about one's ability to perform specific coping behaviors (SCB) will influence outcomes of interventions designed to improve coping. The concept of perceived self-efficacy also relates to stress and coping theory, specifically to secondary appraisal ("What can I do?"). Part of secondary appraisal is the judgment that a particular coping strategy can control an outcome; another part addresses the question of whether or not the individual believes he or she can carry out the requisite coping strategy. Beliefs about self-efficacy are not a general disposition; a high level of efficacy in one domain does not necessarily correlate with high levels of self-efficacy in other domains (DiClemente, 1986; Hofstetter, Sallis, & Hovell, 1990).

The ability to cope impacts a person's bereavement process, and the ways and ability to cope vary with each individual. Stigma and the amount of perceived social support also influence the ability to cope (Bandura, 1997). These three variables impact the bereavement process, especially with the added variable of death by suicide.

Suicide and Bereavement

Many survivors of suicide suffer alone, in silence, because of the social stigma surrounding suicide. Survivors have various needs and must be offered assistance in the bereavement process as well as with other familial, medical, and practical issues. Murray et al. (2000) found that bereaved populations who are identified prior to intervention as

being at the highest risk for developing complicated grief benefit the most from a post-intervention program. However, as also related by the survivors, the intervention must be aimed at treating specific needs caused by traumatic reminders that usually appear as nightmares and/or flashbacks.

Conceptually, the idea of "untimely death," commonly known as premature death, has been identified for many years as a potentially powerful determinate of the nature and extent of grief (Stroebe & Schut, 2001). Research indicates that bereavement is a multi-dimensional occurrence, with a variety of possible outcomes (Cain, 1972; Callahan, 2000). Defining, or quantifying, the grief or bereavement process is difficult due to the divergent theoretical frameworks that underlie bereavement research in general. Weiss (1993) defined bereavement as a process through which grieving individuals may ''return to previous levels of functioning'' (p. 277). Feifel (1977) described the process by which grieving individuals ''redefine and reintegrate'' themselves into life (p. 9). Other professionals dispute the notion of total recovery, proposing instead the use of such terms as manage, adapt, deal with, or adjust (Balk, 2004).

The lack of consensus surrounding the nature of bereavement is due to the fact that each of the major schools of thanatological thought has lent itself to a different notion of what it means to recover from bereavement. Psychoanalytic theories, primarily inspired by Freud, regard recovery from grief as the product of a grueling process involving the cathartic release of grief-related emotion. Within the context of family systems theory, recovery denotes the realignment of family relationships following loss (Nadeau, 1997), whereas sociocultural theories emphasize the powerful impact of sociological factors upon grief outcomes (Goss & Klass, 2005; Klass, 1999). Bowlby's

theory of attachment in children has also been applied toward our understanding of adult bereavement, providing the basis for a concept of recovery as the achievement of ordinary functioning following the loss of a significant relationship (Weiss, 1993). Resolution of the grieving process, according to Bowlby and Parkes (1970), necessarily involves the severance of emotional ties to the deceased, and reinvestment in new goals and relationships. Contemporary researchers have identified individual attachment style as a crucial factor in the recovery process (Shaver & Tancredy, 2001.)

Genevro (2003) published a review of the concepts of recovery and suggests that recovery may be defined in terms of a particular set of positive psychological states, whereas Bonanno (2004) proposes that symptoms of depression or posttraumatic stress disorder be used to assess the level of an individual's recovery from bereavement. Balk (2004) asserts the value of understanding recovery in a more existential sense. He states the importance of identifying essential human sentiments and operationalizing them as measurable bereavement impacts: ''If we can find means of assessing the presence, absence, and importance of the essential human sentiments in the lives of persons, we would have a powerful mechanism to infer the extent to which recovery following bereavement has occurred'' (p. 368). There are many different paths to resolve the grief that follows a suicide, hence many approaches to recovery. It is important to address the universal approaches to recovery.

Approaches to recovery and grief. Grief is traditionally seen from a single principal perspective. A key component of grief is the need for expressing feelings surrounding loss (Stroebe & Stroebe, 1991). Theorists highlight the importance of working through the negative thoughts, memories, and emotions connected to a loss

(Bonanno & Field, 2001). This suggests that the processes of grief work are appropriate for only a subset of bereaved individuals, most likely those actively struggling with the most severe levels of grief and distress (Stroebe & Stroebe, 1991).

The idea that grief may characterize only the more highly distressed bereaved individuals (i.e., those exhibiting either the recovery or chronic symptom trajectories) is further supported by data indicating that the practice of engaging a wide variety of bereaved individuals in grief counseling has proved remarkably ineffective. Grief-focused therapies typically target both acute and prolonged grief reactions as well as the absence of a grief reaction (Rando, 1996). Two recent meta-analyses reached the conclusion that grief-specific therapies (i.e., therapy sessions that refer only to the grief a client is experiencing) tend to be relatively ineffective as compared to other therapies (i.e., cognitive behavioral, psychoanalytic) (Kato & Mann, 1999; Neimeyer, 2000). In one of these analyses (Kato & Mann, 1999), an alarming 38% of the individuals receiving grief treatments (e.g., individual therapy, medication) actually became worse as compared to no-treatment controls. A third meta-analytic study reported some effectiveness of grief-specific therapies, such as stage model and cyclical processing (Allumbaugh & Hoyt, 1999). The clearest benefits for grief-specific therapies were evidenced primarily with bereaved individuals experiencing chronic grief (Neimeyer, 2001). In summarizing these findings, Neimeyer (2001) concluded that "such interventions are typically ineffective, and perhaps even deleterious, at least for persons experiencing a normal bereavement" (p. 541).

Stroebe and Schut (1999) propose restoration as a more appropriate descriptor of life in the aftermath of loss. They define restoration as returning to a normal routine and

re-integrating into the community. The term restoration, sometimes called recovery, can often elicit uncomfortable feelings and likely reflects insight gleaned through personal experience with grief (Balk, 2004). Many bereavement support practitioners strongly oppose the notion that the bereaved can eventually recover and return to his or her original psychological state of being following a loss. The epistemological divide between researchers and practitioners on the definition of grief, as well as the bereavement process, may be a complicating contextual factor hindering the development of a restoration model with far-ranging explanatory power. In summary, there is a lack of consensus in the literature on the impact of suicide on the bereavement process and what is needed in order to feel a sense of recovery from grief.

Violent Death and Its Impact on Bereavement

A violent death is described as the result of the intentional use of physical force or power against oneself, another person, or a group or community (i.e., homicide, suicide) (Wolfelt, 1996). Military warfare can lead to frequent, often violent, death. Traditional grief theory suggests that the type of loss will affect the way a person adjusts to grief. This perspective indicates that a person will adjust to his or her loss and move on by completing certain tasks, such as accepting that the loss has occurred, expressing feelings around the loss, and transforming the relationship into one of memories (Wolfelt, 1996). Traditional grief theory may not fully explain what happens to a family member who has lost a loved one. This can be especially true of a sudden or violent death (Sprang & McNeil, 1998). The violent loss of a loved one may cause post-traumatic stress disorder (PTSD) symptoms in addition to general grief symptoms (McClatchy, et al., 2010). PTSD symptoms may develop in survivors after a death due to homicide or suicide (Black,

1998; Pfeffer et al., 2002), and in the case of suicide, often delay the grief process (Brosius, 2004). Research suggests that often trauma symptoms caused by the violence of the death interfered with the grieving process in surviving children and other adults. People who had experienced the suicide experienced a delay in the grief process (Brosius, 2004). When a person's death is violent or sudden, intrusive thoughts about how that person died, and then the PTSD symptom of numbing, often interrupt the task of reminiscing. This interruption prevents full expression of grief. Often the PTSD symptoms must be addressed before the grief can be fully processed. Webb (1993) states that helping a person, especially a child, after the suicide of a parent is "analogous to providing temporary shelter following the total destruction of home and community in a violent earthquake: We do what we can to pick up the pieces but life will never be the same" (p. 152).

There is much dispute on the many facets of bereavement and the bereavement process (McIntosh, 2003). This is a complex issue and adding suicide, as well as the culture of the military and other variables surrounding a death, only further complicates the process. Examining the suicide survivor and the survivor's needs can bring clarity to the course of treatment.

Suicide and the Survivor

Suicide survivors are family members and friends whose lives have significantly changed because of the suicide of a loved one (Andriessen, 2009; Jordan & McIntosh, 2011; McIntosh, 2003). The bereaved could have had a personal and close relationship with the deceased (e.g., be a friend or a family member) or this loss could reflect the situation of a person who did not know the deceased personally but who knows about the

death through reports of others or media reports (e.g., suicide of a celebrity) or who has personally witnessed the death of a stranger (e.g., train drivers or police) (Berman, 2011). Cain's *Surviving of Suicide* (1972) first alerted clinicians as well as the public to the severe consequences of suicide on surviving family members. Cain (1972) coined the term ‘‘survivors’’ to apply to those who have been directly affected by a suicide loss. Shneidman (1968) created the term "postvention," which called attention to the need for therapy among survivors of suicide.

The term suicide survivor focuses on (a) the existence of a relationship between the deceased and the bereaved, (b) the closeness of this relationship, and (c) the impact of the loss on the bereaved. In general, suicide survivors receive significantly less emotional support for their feelings of depression and grief when compared to survivors who have experienced a natural death (Farberow et al., 1992b). Assessments and interviews of suicide survivors show that those who were close to the deceased are at a heightened risk for complicated grief or other psychosocial consequences (Mitchell et al., 2004).

Survivors of suicide may have higher risk for a variety of psychological complications, including elevated rates of complicated grief and even reactive suicide (Agerbo, 2005). It is also important to note that suicide survivors might not differ significantly from other bereaved groups regarding general mental health, depression, PTSD symptoms, and anxiety (Sveen & Walby, 2008). That being said, suicide survivors could have experienced additional emotions during their grieving process as compared to their counterparts (Jordan, 2001; Sveen & Walby, 2008). One main issue in exploring suicide and the survivor is that there is a lack of consensus in the literature regarding the definition of a "suicide survivor" (Provini, Everett, & Pfeffer, 2000). For the purpose of

this dissertation, the term suicide survivor will be used to indicate the wife of a male service member who has committed suicide.

Issues and Needs of Suicide Survivors

After identifying bereavement and defining suicide survivors, the next step is to identify specific needs of the survivors. Studies of suicide survivors indicate that this type of griever struggles more with questions about the meaning of life and death, reports feeling more isolated and stigmatized, and has greater feelings of abandonment and anger compared with other sudden death survivors (Callahan, 2000). Moreover, the feeling of relief from no longer having to worry about the deceased may distinguish survivors of suicide from survivors of other types of sudden death (Jordan, 2001).

Research addressing suicidiology, thanatology, or trauma may be too limited to permit development of empirically-based assistance for survivors during their bereavement process (Clark, 2001; Farberow, 2001). Two empirical studies explored the perceived needs of survivors following a suicide (McMenamy, Jordan, & Mitchell, 2008). Provini et al. (2000) used a telephone survey of 227 next-of-kin-survivors. Participants were 18 years of age or older and had lost a relative between January 1st and December 31st, 1997. Next of kin were identified through a listing of suicides provided by the New York City medical examiner. One quarter of the sample indicated specific concerns and needs, while approximately one third indicated that they had no specific concerns or needs. Twenty-five percent of the sample stated that they had received either formal or informal help since the suicide. Formal help was defined as individual, group, or medical assistance. Bereavement-related concerns were defined as difficulties or problems that might prompt a bereaved individual to seek assistance from family, friends,

or professionals. Provini et al. (2000) presented four categories of concerns: (a) family relationship, (b) psychiatric, (c) bereavement related, and (d) stress related. The most frequently mentioned types of concerns (57%) were family-related problems (e.g., the inability to maintain parenting roles, the inability to maintain family routines, the existence of different coping styles within the family, and the inability to provide appropriate emotional support to family members), followed by psychiatric symptoms related to the suicide (26%). Psychiatric issues were defined as feelings of depression and anxiety, emotional problems (e.g., feelings of guilt and anger), and behavioral issues (e.g., difficulty following daily routines or a tendency to argue).

Provini et al. (2000) grouped barriers to desired assistance into three categories: barriers involving family relationships (e.g., disagreements about whether help was needed), identified by 10% of participants; barriers due to language difficulties, 8%; and systemic barriers (e.g., lack of time, money, or transportation), 6%. Many of the next of kin were reluctant to provide information about their needs (43% of those contacted) and concerns (47% of those contacted). This finding is consistent with those of Ness and Pfeffer (1990) that suicide-bereaved individuals often have difficulty discussing their experiences.

Dyregrov (2002) studied 128 parents who had lost a child by suicide (age range: 11-29 years; *M*=22) The parents (age 32 to 73) represented all regions of the country, rural as well as urban areas, and a range of educational and occupational backgrounds. A majority of the parents experienced severe reactions on measures of psychosocial health: 62% showed a high level of psychosocial complaints on the General Health Questionnaire (GHQ); 52% showed a high level of posttraumatic distress on the Impact

of Event Scale (IES); and 78% scored above the cut-off level for complicated grief reactions on the Inventory of Complicated Grief (ICG).

Dyregrov (2002) found that bereaved survivors expressed a need for ongoing and longer- term outreach from caregivers, since they had difficulty initiating a search for help beyond short- term care. As in Provini et al.'s 2000 study, respondents indicated a strong need for assistance while supporting minor children after suicide, as well as a need for targeted help with posttraumatic experiences that intruded on reminiscing.

The studies presented above indicated that survivors have varying needs that include financial support, social support, emotional support, and assistance with depression and anxiety. Survivors reported several barriers to seeking support: systemic problems and family issues, as well as depression and anxiety. The few studies of suicide survivors found that they need assistance with these issues and often find it difficult to seek help.

Impact of Suicide on the Family

A suicide can impact people in various types of relationships with the deceased, ranging from close family members to more distant relatives, friends, neighbors, and employers (Crosby & Sacks, 2002). Approximately 7% of the U.S. population (approximately 13.2 million people) have been exposed to a suicide within the past 12 months. Crosby and Sacks (2002) examined exposure to suicide. Of the 335 respondents who stated their relationship with the person who completed suicide, 3.2% reported that the decedent was in their immediate family (e.g., husband, sibling, child, stepchild), and 13.7% identified another family relative (e.g., cousin, uncle, niece or nephew,

grandfather). The majority, 80.4%, identified a friend or acquaintance (e.g., close friend, neighbor, co-worker).

In regard to the number of survivors per suicide, Berman (2011) reported that the number varied considerably depending on the type of the relationship, the frequency of contact between the deceased and the bereaved, and the age of the deceased. Wrobleski (2002) reported an average of 10 survivors left after a suicide; Steel et al. (2011) reported seven survivors. Each suicide impacts more than one person, leaving a lasting impression on those people. However, this study focuses only on spouses who have survived a service member's suicide.

Needs of spouse during bereavement. There is limited research on the relational and family context and impact of suicide, particularly in regard to research exploring family discourse and the meaning of suicide in families. Despite the frequency of suicide, there is limited research focusing on the needs of surviving spouses (Miers et al., 2012). To better understand spousal needs following a suicide, it is valuable to recognize the risk that survivors face. Experiencing suicide in one's family increases the risk for family members' mental health and family relationships (Jordan, 2001). This outcome has implications for prevention and intervention.

In an attempt to differentiate between needs and risks, Bonanno and Kaltman (2001) described the varieties of grief expressions. In their review, from 50% to 80% of bereaved spouses experienced common grief patterns, with minor disruptions in cognitions, emotions, physical functioning, and social functioning, and most return to baseline. However, 15% of the bereaved showed chronic grief reactions, identified as major depression, generalized anxiety, and PTSD diagnoses.

Bonnanno and Kaltman (2001) reviewed 21 longitudinal bereavement studies. They suggested that grief produced psychological disruptions as evidenced by depressive, anxious, hostile, or psycho-physical symptoms, as well as physical disruptions in the form of sick days, hospital admissions, disruption of sleep and appetite, and alcohol and other drug misuse. Increases in these psychological and physical disruptions were found to be experienced within one and two years after bereavement. Depressive symptoms, sleep disturbances, and substance misuse were reported within the first few months of grieving a loss. During the first year following the loss, there is a peak in emotional and behavioral disruptions; 8 years later approximately 65% return to baseline functioning, and 10 years later most symptoms have completely subsided.

Constantino, Sekula, and Rubenstein (2001) studied 60 widows to evaluate the impact of suicide using the Revised Grief Experience Inventory (RGEI); this 22-item, six-point scale is based upon Parkes' (1972) framework of bereavement. The RGEI includes four subscales: Depression (six items), Physical Distress (seven items), Existential (six items), and Tension/Guilt (three items). The inventory examines the grief experiences of bereaved persons with a variety of relationships to the deceased. Constantino et al. (2001) reported significant social isolation among survivors, with a significant reduction in perception of social isolation over 6 months, and "a significant reduction in overall depression, psychological distress, and grief and an increase in social adjustment" (p. 437). The data revealed that the social adjustment issues are the slowest to respond over time.

Zisook, Paulus, Shuchter, and Judd (1999) conducted a study of the incidence of depression among bereaved spouses. The researchers examined 328 widows and

widowers, administering diagnostic instruments for depression at 2 months, 13 months, and 25 months after a loss. The chronic bereavement typology was found to better account for the diagnoses of anxiety, depression, or post-traumatic stress disorders. Previous major depressive disorder predicted higher rates of depression following bereavement. Among the severe or complicated grief cases, major depression accounts for 12% within the first thirteen months and 6% of all cases twenty-five months following the death. According to Davis et al. (2007), a few spouses said they were able to focus on positive aspects, but the majority of bereaved spouses reported negative emotions and barriers to seeking assistance.

In a spousal relationship, each person fulfills certain roles (e.g., caretaker, social planner, organizer). Following the death of one spouse, responsibility for all roles shifts to the survivor. Being faced with new responsibilities is unsettling (Mezey et al., 1999). Many couples have a routine for dealing with responsibilities such as financial support, child care, and employment. After a loss, these responsibilities change. According to Murray et al., (2000), the system in which the spouses existed as a couple is destabilized by suicide, but the survivor must continue to function. In order for that to happen, the survivor must reconstruct his or her identity and its personal meaning, as well as reestablishing roles and responsibilities. The spouse must identify with the world in normal developmental evolution. Tasks that were carried out in the relationship must now be carried out by the survivor (Murray et al., 2000).

Cerel et al. (2008) stated that because suicide occurs within families, the focus on the aftermath of suicide within families and the impact on the spouse are important areas to investigate in order to determine exactly how to help survivors. Research needs to

address grief patterns pertaining to cognitions, emotions, and physical and social functioning. Social isolation can lead to depression and anxiety, two important issues involved in spousal bereavement. Following the loss of a spouse, the process of re-establishing roles and identities often leads survivors to experience these conditions, so they must be addressed in order to facilitate the bereavement process. The needs of spouses following bereavement extend to include the needs of families.

Assisting families. In order to assist families, it is valuable to first define the term family. Society's definition of family is rapidly expanding. It can refer to single parents, biracial couples, blended families, unrelated individuals living cooperatively, and homosexual couples (Crawford, 1999). Stack (1996) defines family as the smallest organized, durable network of kin and non-kin who interact daily, providing for the domestic needs of children and assuring their survival.

In terms of assisting families, Murray et al. (2000) recommend offering the surviving family members information on medical aspects of the death, the progress of mourning, effects of the death on family members and family systems, and effects on future decision-making. Helping survivors to address practical, economic, and legal issues, in addition to providing information and therapeutic intervention, is also important (Dyregrov, 2002; Provini et al., 2000).

There is limited research on the needs of survivors of a suicidal death. McMenamy et al. (2008) researched a small sample of needs of suicide survivors. Although the sample size is too small to make generalizations, the study highlights certain issues that surviving family members could face. The sample consisted of 63 survivors of suicide (18 years of age or older). It was 71% female and 94% Caucasian;

81% had at least a college education; and 64% of the participants were married. In the sample, 32% were parents of the deceased, 29% were offspring, and 18% were spouses. The deceased were predominantly male (79%). The length of time since the suicide was extremely varied, with a mean length of 47.9 months. Nearly one third (30%) of the sample had lost a significant other within 1 year of participating in the study, 22% from 1 to 2 years, 23% from 2 to 5 years, 11% from 5 to 10 years, and 14% over 10 years ago. About one third (33%) had witnessed the suicide.

McMenamy et al. (2008) administered both the Survivor Needs Assessment Survey and the Demographic Questionnaire. The majority (61%) of participants indicated that they had experienced moderate to high levels of functional impairment—that is, major effects on their daily activities at home or work. In addition, 38% of the participants expressed moderate to high levels of difficulty with finding support resources.

Participants also reported psychological difficulties: 84% indicated experiencing "intense sadness and yearning for their loved one" (p. 382). Over 75% of the participants indicated feeling both guilt and depression; a majority of the participants also reported moderate to high levels of anxiety, trauma symptoms, sleep problems, and anger (McMenamy et al., 2008). A majority of participants experienced moderate to high levels of anxiety (64%), trauma symptoms (55%), sleep problems (53%), and anger and irritability (53%). Over one third (42%) experienced moderate to high levels of shame or stigma, and 22% of participants reported moderate to high levels of their own suicidal thoughts. Many participants reported that they had experienced substantial difficulties in

the social arena, particularly with sharing grief within the family (64%) and talking about suicide within the family (61%).

These findings indicate that many suicide survivors are at risk for a prolonged bereavement, possibly accompanied by high levels of mental health problems, psychological distress, and impairment in functioning. The study's findings also indicated difficulties in the social arena. Predictably many participants had difficulty talking about the suicide and handling questions about it. In addition, feelings of depression, overwhelming grief, and trauma that accompany the loss may prevent some survivors from seeking support (McMenamy et al., 2008).

Risk factors for families. A difficult psychological trauma, such as loss of a loved one, takes a relatively long time to work through and recover from (Farberow et al., 1992a). Callahan (2000) indicates that the loss by suicide of a family member is an extremely powerful and traumatic experience, and when survivors are highly distressed, the specific circumstances of the event (e.g., relationship to the deceased, way in which the person committed suicide) do not make a significant difference in overall levels of grief. Suicide bereavement should not be considered a unique type of grief, but rather a combination of grief and posttraumatic stress. Callahan's results reinforce the idea that posttraumatic reactions must be responded to before grief reactions can be successful treated.

The surviving spouse, close family members, parents, and siblings often struggle with serious problems (e.g., depression, inability to maintain employment, lack of energy, isolation) for a much longer period of time than health services and social networks have realized (Dyregrov & Dyregrov, 1999; Murphy, 2000; Wertheimer, 1999). Murphy

(2000) found that nearly 40% of parents experienced distress (e.g., emotional, financial, social) during the third and fourth year of bereavement after violent deaths of their children. The study concluded that a 6-month duration of survivor assistance counseling was insufficient and recommended that referrals to support groups, bereavement counselors, and other services may need to continue even up to five years after the death of a child.

In summary, suicide and bereavement is multifaceted. There are multiple types of bereavement and much ambiguity when it comes to defining the bereavement process. The military culture increases the complexity of suicidal bereavement due to reluctance to seek help based on stigma. This reluctance to seek help increases the risk for mental health issues as well as the difficulty of reestablishing one's identity following the death of a spouse or family member (Cerel et al., 2008). Depression and isolation are key components for hesitating to seek services and only perpetuate the bereavement process (Uchinao, 2006), but strong social support can assist survivors with systematic issues as well as with emotional and cognitive impairments following a suicide.

It is important to examine the theory and clinical development of grief interventions in order to establish the most effective means to assist suicide survivors. The next section will explain the impact of grief therapy on the suicide survivor. That section will also explain Lazarus' Cognitive Stress Theory and explore its application to the military culture in order to better identify and address the needs of this population.

Suicide Survivor and Grief Therapy

The category to which a death is assigned (e.g., suicide, homicide, and accidental) and the conditions surrounding death can impact grief therapy and the bereavement

process. Bereavement following suicide differs from bereavement following other causes of death (Dunn & Morrish-Vidners, 1988). Few studies have examined the natural coping efforts used by suicide survivors, or have identified specific problems and needs that survivors experience following the suicide of a significant other (McMenamy et al., 2008). Suicide and the bereavement that follows can take an emotional toll on an individual and family (North & Sheridan, 2010). During the early months after a suicide, a survivor might use doubt and blame in order to cope with the circumstance. If these coping skills remain, they can often prove counterproductive throughout the bereavement process and in later stages.

The effectiveness of interventions with suicide survivors is limited, according to Jordan and McMenamy (2004). These authors make a number of recommendations for future research on such interventions. Their main recommendation is to investigate the natural course of bereavement for survivors in the community. Many questions remain about how to define a survivor and determine the number of people impacted by a suicide. Few studies have compared the different bereavement processes after traumatic versus non-traumatic loss; more research needs to be conducted in this area (Cerel, Jordan, & Duberstein, 2008).

Studies have shown that more survivors feel a need for professional mental health services than actually access them. Saarinen et al. (1999) found that 50% of the sample stated that they needed psychiatric services, but only 25% actually sought them out. The participants gave several reasons: lack of social support, lack of child care, fear of judgment, and shame. Given the general lack of research on the needs of suicide survivors, additional information is needed about adult survivors who receive assistance,

the forms of assistance, and the effectiveness of the support received. Such evidence is critically important to guide the development of appropriate and timely interventions for at-risk survivors (Jordan & McMenamy, 2004). Schut et al. (2001) evaluated 16 primary interventions for suicide survivors and concluded that "the more complicated the grief process appears to be, the better the chances of interventions leading to positive results" (p. 731). This research indicates that grief is multifaceted and needs to be researched further.

Allumbaugh and Hoys (1999) performed a meta-analysis of 35 bereavement intervention studies. The purpose of their study was to examine the question of how effective grief therapy is and for what individuals this therapy is appropriate. The researchers independently coded all studies for 12 potential moderator variables, involving characteristics of the treatment, the study, and the client that were thought to be theoretically relevant to the outcome of grief therapy. Treatment characteristics included the practitioner's level of training (i.e., professional, professional in training, or nonprofessional) and the treatment modality (group vs. individual); study characteristics included the type of control group (placebo vs. no treatment), method of group assignment (random vs. systematic), and source of outcome measure (observer vs. self-report); the one client characteristic was level of risk (high vs. normal). The study identified five variables that affect the bereavement process: number of sessions, client mean age, client gender, mean length of time since loss, and relationship to the deceased (Shrout & Fleiss, 1979).

Lazarus' Cognitive Stress Theory

Interest in the processes by which people cope with stress and trauma has grown dramatically over the past decade (Krohne et al., 2002). Lazarus (1966) initiated much of the research involving stress and trauma. He argued that stress consists of three processes: primary appraisal, secondary appraisal, and coping. Primary appraisal is the process of perceiving a threat to oneself. Secondary appraisal is the process of bringing to mind a potential response to the threat. Coping is the process of executing that response (see *Appendix, Figure A2)* (Lazarus & Folkman, 1984).

Since its first presentation as a comprehensive theory (Lazarus, 1966), the Lazarus stress theory has undergone several essential revisions (Lazarus, 1991a; Lazarus & Folkman, 1984; Lazarus & Launier, 1978). In the latest version (Lazarus, 1991b), stress is regarded as a relational concept. This means that stress is not defined as a specific kind of external stimulation or a specific pattern of physiological, behavioral, or subjective reactions. Instead, stress is viewed as a relationship, or transaction, between individuals and their environment. Psychological stress refers to a relationship with the environment that the person appraises as significant for the person's well-being and in which the demands exceed available coping resources (Lazarus & Folkman, 1986).

This definition points to two processes as central mediators of the transaction between the person and his or her environment. These are cognitive appraisal and coping. The concept of appraisal, introduced into emotion research by Arnold (1960) and elaborated with respect to stress processes by Lazarus (1966), is key to understanding stress-relevant transactions (Lazarus & Launier, 1978). This concept of appraisal is based on the idea that emotional processes (e.g., stress) depend on a person's actual

expectancies with regard to the significance and outcome of a specific encounter. This concept is necessary to explain individual differences in quality, intensity, and duration of an elicited emotion in environments that are objectively equal (Krohne et al., 2002).

It is generally assumed that the resulting state is generated, maintained, and eventually altered by a specific pattern of appraisals. These appraisals are determined by a number of personal and situational factors. Most important are the factors that navigate the personal side. These are motivational dispositions, goals, values, and generalized expectancies. Relevant variables of the situation are predictability, controllability, and imminence of a potentially stressful event.

Lazarus (1991a) developed the Cognitive Stress Theory, an emotion theory that was comprehensive and includes a stress component. This theory identifies two basic forms of appraisal: (a) primary appraisal and (b) secondary appraisal. Primary appraisal includes three components: goal relevance, goal congruence, and ego involvement. Goal relevance describes the extent to which an encounter refers to issues about which the person cares. Goal congruence defines the extent to which an episode proceeds in accordance with personal goals. Ego involvement designates aspects of personal commitment such as self-esteem and moral values (e.g., ego-ideal and ego-identity).

Secondary appraisal also consists of three components: blame or credit, coping potential, and future expectations. Blame or credit results from an individual's appraisal of who is responsible for a certain event. Coping potential is a person's evaluation of the prospects for generating certain behavioral or cognitive operations that will positively influence a personally relevant encounter. The term future expectations refers to the appraisal of the further course of an encounter with respect to goal congruence or

incongruence. Based on the fundamental difference between primary and secondary appraisals (primary appraisal occurs first; then based on this appraisal, secondary appraisal begins), these concepts will be treated separately within the present study.

Specific patterns of primary and secondary appraisal lead to three different kinds of stress: harm, threat, and challenge (Lazarus & Folkman, 1984). Harm refers to the psychological damage or loss that has already happened. Threat is the anticipation of imminent harm. Challenge results from demands that a person feels confident of mastering. These different kinds of psychological stress are embedded in specific types of emotional reactions, thus illustrating the close conjunction of the fields of stress and emotions.

Although these processes are most easily described as a linear sequence, Lazarus has emphasized that they do not occur in an unbroken stream. The outcome of one process may invoke a preceding process. For instance, realizing that an adequate coping response is readily available may cause a person to reappraise a threat as less threatening. If a coping response is less effective than expected, that person may reappraise the level of threat or reappraise what coping response is appropriate. The entire set of processes may then cycle repeatedly in a stressful transaction.

Coping is intimately related to the concept of cognitive appraisal as well as to the stress-relevant person-environment transactions. Folkman and Lazarus (1980) define coping as the cognitive and behavioral efforts made to master, tolerate, or reduce external and internal demands and conflicts among these demands. This definition contains four implications: (a) coping actions are classified not according to their effects (e.g., as reality-distorting), but according to certain characteristics of the coping process; (b) the

process encompasses an individual's behavioral as well as cognitive reactions; (c) coping consists of different single acts that are organized sequentially, forming a coping episode; (d) coping actions can be distinguished by their focus on different elements of a stressful encounter. These actions can attempt to change a person's relationship to the environment or can focus on the person's emotions in order to reduce a negative emotional state or change the appraisal of the demanding situation (i.e., emotion-focused coping) (Lazarus, 1996).

Lazarus and Folkman's 1984 model of stress focuses on the transaction between people and their external environment. The authors suggest that stress can be thought of as resulting from an imbalance between demands and resources or as occurring when pressure exceeds one's perceived ability to cope. The concept of stress management is based on the premise that stress is not a direct response to a stressor but instead depends on one's resources and ability to cope, both of which can be changed. This suggests that stress can be controlled. The model contends that a potential stressor may not actually cause stress if a person does not perceive it as a threat but rather as a challenge or if the person can use adequate coping skills. The model further proposes that people can learn to change their perspective of the stressor, and thereby manage their stress, thus gaining the ability and confidence to better handle other types of stressors (Lazarus, 2005).

Stress during bereavement. Evidence from stress research ranks spousal death as the most stressful event individuals are likely to encounter in their lifetime (Daggett, 2002; Richardson & Balaswamy, 2001; Sossou, 2002). This research indicates that spousal death is inherently stressful, because it results in social isolation (Morgan, 1984); spousal death also causes difficulties with adjusting to a new ‘‘partnerless’’ identity and

assuming new roles, many of which were shared with the deceased spouse (Richardson & Balaswamy, 2001).

For most surviving spouses, the death of a spouse brings about material deprivation due to loss of family income, especially if the deceased spouse was the sole breadwinner (Sossou, 2002; Zick & Smith, 1988). Stress can also result from the erosion of status and social benefits associated with being married (Hanson & Hayslip, 2000).

The death of a loved one can cause various psychological states, including anxiety, yearning, anger, and depression (Tedeschi & Calhoun, 2004). Stressful and potentially traumatic life-changing experiences like spousal loss often result in a disruption of one's "assumptive world," where much that the individual has counted on as being reliable, predictable, and controllable no longer exists (Parkes, 1972).

Strengths and weaknesses of Lazarus' Cognitive Stress Theory. One strong component of this theory, especially in relationship to bereavement, is that it is a dynamic theory. The fundamental premise of the theory is that individuals can change the way they appraise a situation and respond to it (Lazarus, 2005). As bereavement and the situation surrounding the death change, a person can reevaluate the situation and the associated stress. Lazarus' theory allows for that change. However, due to the flexibility of the model it can be difficult to label specific factors that determine stress. Another strength of Lazarus' Cognitive Stress Theory is that it takes individual differences into account. The way people appraise and cope with stress varies depending upon type of death, time of death, relationship status, and so forth. This theory allows for individual differences (Groomes & Leahy, 2002).

Studies Utilizing Lazarus' Cognitive Stress Theory

The transactional theory of stress and coping (Lazarus & Folkman, 1984) has served as a useful lens for examining the interaction between a person and situational demands. Burton, Farley, and Rhea (2009) used Lazarus' Cognitive Theory of Stress to frame a study of the relationship between level of perceived stress and extent of physical symptoms of stress, or somatization, among spouses of deployed versus non-deployed servicemen. A descriptive correlational design was used with 130 participants. Participants completed a Perceived Stress Scale and Patient Heath Questionnaire. An independent t-test was used to determine the level of perceived stress and somatization in each of the two groups (spouses of deployed versus non-deployed servicemen). A Pearson's correlation was used to determine the relationship between perceived stress score and level of somatization in the total sample (pooled groups). The researchers concluded that spouses of deployed servicemen had significantly higher perceived stress scores and somatization scores than spouses of non-deployed service members ($p<.001$). Level of perceived stress and level of somatization were positively correlated ($r=.878$, $p<.001$). The researchers concluded that health care providers should be familiar with common somatic symptoms, treatments used for somatization, and adjunct community resources available to patients with stress-related somatization.

In 2003, the Army saw an increase in the marriage rate of enlisted personnel (Military Family Resource Center, 2003), which coincided with an increase in operational tempo seen in Operation Enduring Freedom I (OEF I). Operational tempo is a measure of the pace of an operation or operations in terms of equipment usage (e.g., aircraft flying hours, ship steaming days or driving miles) (Military Family Resource Center, 2003). Thus a large number of young military spouses who were new to the

Army culture were being separated from their spouses. Previous research indicates that junior enlisted and first-term wives are more likely to have a decreased sense of psychological well-being because they feel isolated from family and other support systems that they relied on in the past. This lack of an intrinsic support system, when added to the enormous number of new responsibilities placed on the spouses of deployed service members, has the potential to result in high levels of emotional distress and maladaptive coping behaviors (Fals-Stewart & Kelley, 2005; Rosen, Westhuis, & Teitelbaum, 1993). The same picture may apply to bereaved spouses.

A strong support system can buffer harmful effects related to life stressors (Rosen & Moghadam, 1988). However, Fals-Stewart and Kelley (2005) point out that many people who suffer a loss while their military spouses are on active duty are away from traditional support systems such as family and lifelong friends. These young spouses who are new to the military might not reach out for support out of fear they will be judged harshly by other spouses for not coping with the loss of their spouse.

Nauta, Liu, and Li (2010) evaluated the cross-national validity of cognitive appraisal theories of stress (e.g., Lazarus & Folkman, 1984) by examining the interaction of job autonomy and effectiveness in predicting psychological and physical strain among U.S. and Chinese employees. As outlined by cognitive appraisal theories, high self-efficacy served as a buffer against low job autonomy and psychological and physical strains among U.S. employees. However, the buffering effect of self-efficacy was unclear among Chinese employees. For Chinese employees with high self-efficacy, job autonomy was negatively related to job strains, but for Chinese employees with low self-efficacy,

job autonomy was positively related to job strain. The results highlight the importance of attending to culture when examining stressor-strain relations.

Another study (Groomes & Leahy, 2002) examined the relationships among the stress appraisal process, coping disposition, and the level of acceptance of disability. The researchers asked 151 people with disabilities to complete four survey questionnaires. Analysis of data from the newly developed Stress Appraisal Inventory for Life Situations identified five components that became the basis for a new process for stress appraisal. The findings of this study indicate that people with disabilities attribute certain subjective meanings to stressful situations, meanings that relate to particular ways of coping and levels of perceived acceptance of disability. This same idea can be translated to the level of ability to cope with the loss of a spouse and the level of perceived acceptance or support.

Eberhardt and associates (2006) examined Lazarus and Folkman's 1984 stress theory regarding the ways that stress mediators and perceived social support may affect anxiety (as a stress response). Structured interviews were conducted with 113 hospital outpatients who were about to undergo gastrointestinal (GI) endoscopy. Participants indicated their perceptions of (a) the amount of support and clear information they had received from both their general practitioner (GP), and from a patient information leaflet developed in collaboration with health psychologists, and (b) the amount of social support they had obtained from other patients, family, and friends. Anxiety was measured with a population-specific adaptation of the Hospital Anxiety and Depression scale (HADS-A). The majority of the sample experienced high anxiety levels. Gender differences emerged, showing females to be more anxious than males. A regression

model built on stress theory was tested, with anxiety as the dependent variable and 11 predictor variables. Both clarity of information and social support from important others (excluding GPs) mediated the stress experience of the patients by reducing their perceived anxiety.

The above studies show the usefulness of Lazarus' Cognitive Stress Theory in depicting the impact of stress and coping on perceived anxiety, acceptance, ability to lead mentally and physically satisfactory lives, and perception of social support. All these variables measured in other studies helped to create the conceptual framework for the present study using Lazarus' Cognitive Stress Theory.

Recommendations

A number of critical research issues relevant to suicide within the military community can be generated from this review of literature. Research in the area of bereavement after suicide should address the following topics:

1. Grief for a spouse following a suicide. Such grief is both universal and individual. The literature review suggests that identifying essential human sentiments and operationalizing them as measurable bereavement can be useful. All survivors need to reduce the feeling of isolation; however, the long-term bereavement process varies considerably depending on the individual. In upcoming studies, it is imperative to normalize the bereavement process while simultaneously highlighting the nuances of each person's grief.
2. Stigma associated with suicide. In the military world, suicide carries a major stigma, which is strongly associated with mental health issues. Military culture conditions service members and their spouses to be mentally and physically

strong. Suicide and mental health issues are seen as weak, inhibiting spouses from seeking appropriate assistance following a suicide (Quick et al., 1996).

3. Advantage of spousal social support. Literature suggests that informal social support during the process of bereavement is beneficial. Social contact is beneficial for health, buffering the stress associated with bereavement. Research on the needs of spouses during the bereavement process should address the issue of community and social support.
4. Primary and secondary appraisals. Following bereavement, the resulting state is generated, maintained, and eventually altered by a specific pattern of appraisals. These appraisals, identified as primary and secondary, are determined by a number of personal and situational factors. These factors navigate the personal side of the stress, in this case the death of a spouse.
5. Coping. People manage internal and external demands in times of stress, employing a coping process in response to demands that tax or exceed resources. Characteristics of both the person and the environment contribute to the meaning that a person assigns to a specific event. In this case, the specific event is the death of a spouse by suicide. A person's attribution of person-environment interaction to a specific event naturally evokes a coping response for dealing with the taxing situation.
6. Lazarus' Cognitive Stress Theory. Lazarus' theory has some application to the topic of grief. His theory emphasizes that the bereavement process can be cyclical rather than linear: the outcome of one process may invoke a preceding process. Also, the way a person appraises a situation can benefit the survivor throughout

the bereavement process. These appraisals impact the bereavement process as well as social support, stigma felt by the survivor, and ability to cope with the loss.

7. Impact of suicide on the spouse. Previous studies have argued that because suicide occurs within families, an important next step is to focus on the aftermath of suicide within families in order to determine exactly how to help survivors. To better understand spousal needs following a suicide, it is valuable to acknowledge the risk that survivors face. In future studies, it is necessary to evaluate the needs of spouses following a suicide in order to establish how to provide appropriate assistance.

Summary

The literature review indicates that suicide in the military has increased recently, with approximately 6,000 veterans completing suicide every year. With the increase of suicide comes an increase in the number of surviving spouses. It is imperative to begin to assess the needs of these spouses and gain information to develop programs to aid in the bereavement process.

In order to close gaps in the literature on survivors of military suicide, this study used Lazarus' Cognitive Stress Theory to explore the relationships between bereavement, perceived stigma, perceived social support, primary appraisal, secondary appraisal, and coping skill. The researcher administered a survey to surviving military spouses following a military service member's suicide. The findings will be used in order to focus future research. Information from future studies will be valuable in developing treatment programs and additional support mechanisms that can improve the grief process for

military spouses. When survivors can address their needs, the bereavement following a suicide can begin.

Chapter 3 of this study discusses the instruments, independent variables, and dependent variables in greater detail and outlines the methodology of the study. Chapter 4 will report results of the data collection; chapter 5 will discuss the results in depth and suggest future research.

Chapter 3: Methodology

The purpose of the present study was to explore the relationship of bereavement to each of five variables: perceived stigma, perceived social support, primary appraisal, secondary appraisal, and coping skill among women whose military spouse had completed suicide. Specifically, the study explained the relationship of these survivors' scores on the Core Bereavement Items (CBI) to scores on the Stigma of Suicide and Suicide Survivor (STOSASS); the Multidimensional Scale of Perceived Support (MSPSS); scores on the Stress Appraisal Measure (SAM), specifically the component scores of primary and secondary appraisal; and the Coping Self-Efficacy Scale (CSES). This chapter describes the study design, sampling, participant recruitment, instrumentation, measures and covariates, scale development, data collection procedures, and statistical analyses used to answer the study's research question.

Research Design

The study used standard multiple regression analyses to examine the relationships of bereavement to the above five variables—perceived stigma, perceived social support, primary appraisal, secondary appraisal, and coping skill. The target population for this study was women whose military spouses had completed suicide. The current study employed two quantitative research designs. First, a cross-sectional survey study design was used in collecting study data. Quantitative procedures were used to survey a sample of spouses who had lost a military service member to suicide. Second, an explanatory correlational research design was used. Designated as "relational research" (Cohen & Manion, 1994, as cited in Creswell, 2008) or "accounting-for-variance studies" (Punch,

1998, as cited in Creswell, 2008), the explanatory design allowed for examination of the varying relationship of bereavement to the five other variables.

In order to learn more about military suicide survivors' perceptions of their bereavement, data were collected using a secured web-based survey and then analyzed statistically. In addition to demographic information, the survey gathered information on the above six variables. The dependent, or criterion, variable in this study was level of bereavement, as measured by the Core Bereavement Items (CBI). The five other variables were the independent or predictor variables (see *Appendix, Figure A3*). The independent or predictor variables of primary and secondary appraisal were measured by the Stress Appraisal Measure (SAM) (Peacock & Wong, 1990). The SAM separates the total score of the SAM into a score based on primary appraisal and a score based on secondary appraisal. These variables were separated at the time of analysis (Peacock & Wong, 1990). The independent or predictor variable of social support was measured by the Multidimensional Scale of Perceived Social Support Assessment (MSPSS) (Zimet et al., 1988). The independent or predictor variable of stigma was measured by the Stigma of Suicide and Suicide Survivor Scale (STOSASS) (Scocco et al., 2012). The independent or predictor variable of coping was measured by the Coping Self Efficacy Scale (CSES) (Chesney et al., 2006). The researcher also collected demographic information.

Research Question and Hypotheses

The researcher used Lazarus' Cognitive Stress Theory to conceptualize the following research question and hypotheses:

Research Question

To what extent do five variables—stigma, social support, primary appraisal, secondary appraisal, and coping skill—explain variance in bereavement for women whose military spouse had completed suicide?

Hypothesis 1

What is the relationship between perceived stigma and bereavement in women whose military spouse completed suicide?

Ho: Perceived stigma is negatively associated with bereavement.

Ha: Perceived stigma is positively associated with bereavement.

Hypothesis 2

What is the relationship between perceived availability of social support and bereavement in women whose military spouse completed suicide?

Ho: Perceived availability of social support is negatively associated with bereavement.

Ha: Perceived availability of social support is positively associated with bereavement.

Hypothesis 3

What is the relationship between primary appraisal and bereavement in women whose military spouse completed suicide?

Ho: Primary appraisal is positively associated with bereavement.

Ha: Primary appraisal is negatively associated with bereavement.

Hypothesis 4

What is the relationship between secondary appraisal and bereavement in women whose military spouse completed suicide?

Ho: Secondary appraisal is negatively associated with bereavement.

Ha: Secondary appraisal is positively associated with bereavement.

Hypothesis 5

What is the relationship between coping skill and bereavement in women whose military spouse completed suicide?

Ho: Coping skill is negatively associated with bereavement.

Ha: Coping skill is positively associated with bereavement.

Participants and Recruitment

The participants in this study were women age 18 and older who had lost a military spouse to suicide. Application to conduct this research was submitted to the George Washington University Institutional Review Board (IRB). Upon IRB approval, the researcher used a cross-sectional study, collecting data from a non-random, convenience sample with no comparison group. Criteria for inclusion were (a) the service member who had completed suicide had been either on active duty or of veteran status, (b) the survivor was female and 18 years of age or older, and (c) the survivor was considered a spouse. (A spouse is defined as either legally married to—or living in a marriage-like relationship with—another person of the same or opposite gender.)

Seven organizations expressed an interest in participating. The seven organizations were the American Widow Project, Yellow Ribbon Fund, Real Warriors Campaign, Family and MWR Programs, Suicide Awareness Voices of Education (SAVE), Survivors of Suicide Loss (SOSL), Surviving Spouses Support Group (SSSG) and Military Spouse and Family Programs. The researcher recruited participants from these organizations by explaining the study and asking for volunteers. The director or assistant director of each organization distributed study information and materials

through listserv and posted them on its website. Once prospective participants received an email, they decided whether they wanted to participate and met the eligibility requirements. If the spouses decided to participate in the study, their next step was to complete the survey through Survey Monkey©.

Variables

Demographic information. Some demographic information was useful in explaining more about the participants. Six variables—age, race/ethnicity, length of relationship with the deceased partner, the decedent's military status (active or retired), the decedent's length of service, and time since death—provided some contextual parameters that helped to interpret the data. The survey also asked about the deceased's rank, education level, surviving children, and prior suicide attempts.

Age is important because "younger adults interpret grief differently" (Golden, 1996, p. 47). Only women were surveyed in order to control for gender, since research suggests that males and females typically have "different bereavement styles and understandings" (Golden, 1996, p. 89). Length of the relationship with the deceased can shed light on intimacy as well the bereavement process. Military status and length of service (e.g., exposure to trauma, deployment history) have been linked to mental health issues and the associated response to stress by both the service member and the family. Within the bereavement literature, it is common practice to inquire how much time has passed since the family member passed away in order to help address motivation to change and the stage of bereavement.

Bereavement and Core Bereavement Items. The dependent variable of bereavement was measured by the Core Bereavement Items (CBI). The CBI is a 17-item

measure of core bereavement phenomena. This instrument measures the intensity and evolution of bereavement experiences among a variety of bereaved persons (e.g., spouses, adult children losing parents, parents losing children). Items are rated on a 4-point scale, ranging from 0 (Never) to 3 (A lot of the time). Three subscales comprise this measure: (a) images and thoughts, (b) acute separation, and (c) grief.

Holland and associates (2013) investigated the factor structure, internal reliability, and concurrent validity of the CBI in a large, diverse sample of 1,366 bereaved adults. Exploratory and confirmatory factor analyses (conducted on randomly selected halves of the sample) supported a two-factor structure, with items tapping into (a) Grief-Related Thoughts and (b) Emotional Response to Loss. These factors showed strong internal consistency and highlighted the potential applicability of the identified factor structure in regard to bereavement (Holland, 2013). Using data from the entire sample, internal reliability was found to be strong for Thoughts (α =.87), Emotional Response (α =.93), and all 17 CBI items (α =.95). These findings support a two-factor model of the CBI (i.e., Grief-Related Thoughts, Emotional Response to Loss). Notably, the item content of these two factors is similar to that of factors recently identified for the Texas Revised Inventory of Grief (Futterman et al., 2010). For respondents missing an item or items, an individual's score for the missing item(s) was estimated using the mean of the items that person answered, resulting in a corrected sum. (*Note:* This procedure was used for all six variables.) For purposes of this study, this variable was labeled "bereavement."

Stigma and the Stigma of Suicide and Suicide Survivor Scale. Stigma of Suicide and Suicide Survivor Scale (STOSASS) is a 17-question instrument, using a 4-point Likert scale to assess the level of stigma a suicide survivor feels after a loss (Scocco

et al., 2012). The instrument was adapted from the Devaluation-Discrimination scale (Link et al., 2001), whose intent was to reduce the effect of social desirability on responding, giving participants tacit permission to express highly stigmatizing attitudes by attributing them to someone else. The original Devaluation-Discrimination scale showed adequate internal consistency overall, with an alpha of 0.76 (Scocco et al., 2012). Each item is rated on a 4-point scale ranging from ‘‘strongly agree’’ (score 4) to ‘‘strongly disagree’’(score 1). A measure of overall stigma was defined as the average of the 12 item scores, with all items equally weighted. Thus a higher total STOSASS score indicated more stigmatization experienced.

It is important to bear in mind that the semantic structure of the scale is aimed at measuring perceived stigma, the participants' beliefs about negative attitudes of others (which is different from personal or public stigma), not necessarily the participants' own attitudes (Corrigan & Watson, 2002; Griffiths & Christensen, 2004). However, direct confrontation with a person's view of socially sensitive issues (as stigma towards mental disorders) may elicit more socially desirable responses than an indirect strategy of inquiry. For example, in a recent study (Calear et al., 2011), adolescents were invited to fill in the Griffiths & Christensen (2004) Depression Stigma Scale. They reported significantly higher scores on perceived stigma (what they think others think about people with depression) than on personal stigma (what they actually think about people with depression), which is a likely effect of social desirability responding. In another study (Griffiths & Christensen, 2004), self-reported contact with people with depression was associated with higher perceived stigma, whereas it was associated with consistently lower personal stigma (the participants' own attitudes). These findings suggest that

personal contact with people with depression made participants aware of the stigma surrounding that condition.

On the STOSASS scale, the reliability and validity values were good in both subscales (stigma towards the suicidal person as well as towards the suicide survivor): ƛ for the general population = 0.788 and 0.802; ƛ for the clinical population = 0.863 and 0.883; ƛ for survivors = 0.814 and 0.837. As for test-retest reliability, the Intra-class Correlation Coefficient (ICC) was 0.892 (95% confidence interval [CI] = 0.805-0.953) for the overall STOSASS scale; 0.806 (95% CI = 0.642-0.917) for the stigma towards the suicidal person subscale; and 0.851 (95% CI = 0.726-0.936) for the stigma towards suicide survivor subscale. In all cases, ICC values can be considered acceptable. No floor or ceiling effects were observed in the scale (except for items confirming the good discriminatory power of the items).

Scocco et al. (2012) report validation findings for the STOSASS scale that evaluates perceived stigma towards attempted and completed suicide, respectively. Reliability of the scales was good in terms of both internal consistency and test-retest reliability (all >.70). All but two items had good item-total correlations, indicating a valid contribution to the formation of the total scores while allowing for discrimination across the range of replies; floor and ceiling effects were not observed. Factor analysis produced an acceptable measure of the stigma towards the suicide survivor subscale. Items were distributed into two factors: one grouping positively worded items intended to measure supportive, respectful, and caring attitudes, and the other grouping items that were more clearly oriented towards stigmatizing attitudes and beliefs. Overall, the scale displayed

good validity and reliability and a meaningful factorial structure. The label for this variable was "stigma."

Social Support and the Multidimensional Scale of Perceived Support. In the present study, social support was assessed using the Multidimensional Scale of Perceived Social Support Assessment (MSPSS). The MSPSS, developed by Zimet (1988), is a 12-item measure of perceived adequacy of social support from three specific sources: family, friends, and significant others. Items measuring support from a significant other refer to a "special person," which may be interpreted variously to mean a romantic or other particularly close relationship. The Family, Friends, and Significant Other subscales each have four items, all rated on a 7-point scale ranging from 1 (Very strongly disagree) to 7 (Very strongly agree). Higher subscale scores indicate greater perceived adequacy of social support from each of the three sources of support. Reading comprehension level is third grade (Aroian et al., 2010). The MSPSS shows reliability and validity supporting a three-scale factor structure, based on extensive psychometric data from adults, adolescents, and undergraduates as well as psychiatric in- and outpatients (Canty-Mitchell & Zimet, 2000; Clara et al., 2003). Most investigations have revealed MSPSS to demonstrate good to excellent internal consistency and test-retest reliability, with a Cronbach's alpha of 0.81 to 0.98 in non-clinical samples, and 0.92 to 0.94 in clinical samples (Zimet et al., 1990).

Several studies have examined the psychometric properties of the English-language version of the MSPSS and have confirmed three factors corresponding to the three subscales (Canty-Mitchell & Zimet, 2000; Dahlem et al., 1991). Zimet et al. (1988) have demonstrated strong internal reliability, test-retest reliability, factorial validity, and

construct validity, as have several other studies (Zimet et al., 1990). For purposes of this study, the independent or predictor variable measured by this instrument was labeled "social support."

Primary and Secondary appraisals and the Stress Appraisal Measure. The instrument used to assess primary and secondary appraisals was the Stress Appraisal Measure (SAM) (Peacock & Wong, 1990). This instrument is relatively new; however, it has gained in popularity due to the measurement of general cognitive appraisal of stress and has been used in a variety of settings. The SAM was developed by Peacock and Wong (1990), in accordance with the transactional model of stress, to assess both primary and secondary appraisal. The measure was originally developed using undergraduate students (N= 100) who were asked to report their perceptions of stress associated with an upcoming final examination. The appraisal was conceptualized as a multidimensional construct consisting of three primary and three secondary appraisal scales.

The three primary appraisal scales included Threat (e.g., "I feel anxious"), Challenge (e.g., "I am eager to tackle problems"), and Centrality (e.g., "There are long-term consequences as the result of stress"). The three secondary appraisal scales included Controllable-by-Self (e.g., "I have the ability to overcome stress"), Controllable-by-Others (e.g., "There is help available to me"), and Uncontrollable-by-Anyone (e.g., "I feel totally helpless"). Items were generated to correspond to one of the six scales and to be appropriate to anticipatory stress while avoiding any reference to possible coping strategies (Rowley & Roesch, 2013).

From an original item pool of 37, the 4 items yielding the highest correlations of item to scale total (part-to-whole correlations) were retained for each of the six scales,

resulting in the final 24-item SAM measure, with 4 items composing each of the six appraisal scales. The appraisal scales were reported to be only modestly correlated (*M*=.22). For five of the six scales, adequate internal reliability was achieved (αs ranged from 0.74 to 0.90). However, the internal consistency for the Uncontrollable-by-Anyone scale was exceedingly low (α=.51). To test the construct validity of this measure, Peacock and Wong (1990) conducted a second study that successfully differentiated between two different anticipatory stressors.

Internal consistency was good for all six factors (αs ranged from 0.73 to 0.86). However, a subsequent principal components analysis with a varimax rotation resulted in a 5-factor solution instead of a 6-factor solution. Peacock and Wong argued, however, that the factor loadings were still generally supportive of their 6-dimensional appraisal measure. Support for the convergent validity of the SAM was established in a third and final study (*N*= 144) designed to investigate the relationship between the SAM scales and measures of mood, psychological symptomology, and locus of control. Adequate internal consistency was achieved for only three of the six factors (α ranged from .84 to .85), with only marginal internal consistency for two of the three primary appraisal factors, Threat (α= .65) and Challenge (α= .66), as well as one of the three secondary appraisal factors, Uncontrollable-by-Anyone (α= .57). A principal components analysis with a varimax rotation resulted in a 6-factor solution. Convergent validity was established by showing that dysphonic mood was significantly correlated with Challenge (*r*= –.19), Threat (*r*= .55), Centrality (*r*= .40), Controllable-by-Self (*r*= –.26), Controllable-by-Others (*r*=–.29), and Uncontrollable-by-Anyone (*r*= .37); psychological symptomology was significantly correlated with Threat (*r*=.36), Centrality (*r*= .33), Controllable-by-Others (*r*= –.20), and

Uncontrollable-by-Anyone (r= .24); and locus of control was significantly correlated with Challenge (r= –.17) and Controllable-by-Others (r= –.21) (Rowley & Roesch, 2013).

Items 5-11, 13, 19-20, and 27-28 assess the primary appraisal, and their total score was labeled "primary appraisal." The remaining items on the scale comprise secondary appraisal, so their total score was labeled "secondary appraisal."

Coping and the Coping Self-Efficacy Scale. The independent variable of coping was measured by the Coping Self-Efficacy Scale (CSES). The CSES focuses on changes in a person's confidence in his or her ability to cope effectively which, according to self-efficacy theory (Bandura, 1997), is an important prerequisite to change in coping behavior. The CSES is a 26-item measure of perceived self-efficacy for coping with challenges and threats. The scale items were developed by several authors (Chesney et al., 2006) who created sample items based upon stress and coping theory and the Ways of Coping Questionnaire, with consultation from Bandura of Stanford University. The authors sought items with content validity. Items were refined based on pilot testing for face validity both with staff at the Center for AIDS Prevention Studies at the University of California, San Francisco, and with a sample of HIV-infected participants.

Respondents are asked, "When things aren't going well for you, or when you're having problems, how confident or certain are you that you can do the following?" They are then asked to rate, on an 11-point scale, the extent to which they believe they can perform behaviors important to adaptive coping. Anchor points on the scale are 0 ("cannot do at all"), 5 ("moderately certain can do") and 10 ("certain can do"). An overall CSES score is created by summing the item ratings (α = .95; scale, M = 137.4, SD

= 45.6). The standard scoring rule, with a summated rating scale score, is that respondents must answer at least 80% of the scale items.

Chesney et al. (2006) performed an initial Exploratory Factor Analysis (EFA) of the 26 baseline CSE item responses to identify a probable factor structure. The study consisted of 348 participants who were HIV-seropositive men with depressed mood. The 26 items included in the original CSE measure were "mapped" to the curriculum of the CET intervention, in which individuals were being taught how to increase their adaptive coping by selecting the appropriate coping strategy when faced with challenges and threats in their lives. Emphasis was placed on both problem-focused and emotion-focused coping strategies, including seeking social support and engaging in spiritual and/or meditation activities. Therefore, the number of factors to retain was determined by a combination of coping theory and empirical findings. Items were assigned to the factor on which they had the largest rotated factor loading.

Using Promax rotation to allow for correlated factors, two to five factors were extracted and the interpretability of each extracted factor was evaluated. A two-factor solution was rejected because a number of conceptually similar items had split loadings across the two factors. Four- and five-factor solutions yielded several nonsensical doublet factors; that is, pairs of items with no discernible theoretical connection that were spuriously loaded to those factors. The presence of doublet factors may indicate that too many factors were extracted in these solutions. By contrast, the three-factor solution yielded clearly interpretable results. Based upon prior expectations in conjunction with the empirical aggregation of the items with the factors, the three factors were labeled

(a) Use Problem-Focused Coping, (b) Stop Unpleasant Emotions and Thoughts, and (c) Get Support from Friends and Family.

The first factor consists of items that measure an individual's self-efficacy with ability to overcome problems by analyzing the problem and using strategies to make the problem seem less daunting ("break an upsetting problem down into smaller parts"). The second factor measures a respondent's effectiveness at altering his/her emotional response to an unsettling event or problem ("take your mind off negative thoughts"). These two factors map to the existing theoretical domains of problem-focused coping and emotion-focused coping, respectively. The third extracted factor captures a social dimension by tapping the respondent's perception of his ability to reach outside himself for help from friends and family ("get emotional support from friends and family").

The factors were moderately related: Use Problem-Focused Coping was positively correlated with Stop Unpleasant Emotions and Thoughts (r = .67) and with Get Support from Friends and Family (r = .60). Stop Unpleasant Emotions and Thoughts was, in turn, positively correlated with Get Support from Friends and Family (r = .54). The label for this variable was "coping."

Survey. A self-report survey was constructed using the above 5 instruments (i.e., CBI, STOSASS, CSES, MSPSS, and SAM), plus 11 demographic questions and 3 open-ended questions. The survey was split into seven sections. The first section has 11 demographic questions. The second section, comprised of the MSPSS, has 12 questions regarding social support of the participant and uses a 7-point Likert scale. The third section, comprised of the CBI, has 26 questions regarding the participant's ability to cope and uses a 10-point Likert scale. The fourth section, comprised of the SAM, has 19

questions regarding participant's stress appraisal measures and uses a 4-point Likert scale. The fifth section, comprised of the STOSASS, has 17 questions regarding the participant's perceived stigma and uses a 4-point Likert scale. The sixth section, comprised of the CBI, has 17 questions regarding the participant's bereavement process and uses a 4-point Likert scale. The final section, comprised of three open-ended questions, allows participants to express the unique experience of their individual bereavement and provide information that may assist the researcher in the analytical process. There are a total of 108 questions for this survey. Three field experts in the field of grief and loss were consulted in order to confirm the content and face validity of this self-report survey.

Data Collection

The study was submitted to the George Washington University's Institutional Review Board (IRB) for review. The purpose of this IRB review was to ensure the safety of the participants and assure the university community that the study was being conducted in an ethical fashion. The data collection for this dissertation took place in the fall of 2013.

The researcher discussed the nature of the study with coordinators of eight organizations: American Widow Project, Yellow Ribbon Fund, Real Warriors Campaign, Family and MWR Programs, Suicide Awareness Voices of Education (SAVE), Survivors of Suicide Loss (SOSL), Surviving Spouses Support Group (SSSG), and Military Spouse and Family Programs. As the study was in progress, the researcher continued to establish relationships with agencies that might be able to distribute information if participation was limited.

Ethical Considerations and Human Participants

Ethical considerations. When conducting research, it was important to consider the ethical code of the counseling profession and the application of the research at hand. When choosing to include participants who have experienced a substantial loss, the researcher followed ethical guidelines strictly in order to protect the participants involved. However, in spite of the emotional nature of the study, the researcher considered it a positive experience: Dyregrov (2004) reported that all the participants in a study of bereaved participants reported positive impacts with no feelings of regret for participating.

Although the risks of completing survey research are minimal, the researcher considered the vulnerabilities of a traumatically bereaved population, as well as the best supports and protection of the study participants. The researcher, a licensed rehabilitation counselor and licensed professional counselor in the District of Columbia, provided her contact information and was available to all survey participants at all times during the study. She also provided crisis hotline numbers in case participants needed additional support after the completing the study,

Informed consent. An information sheet was attached to the front of the survey. The information sheet provided the following information to prospective participants for the study: (a) introduction and purpose of study, (b) amount of time involved in participating, (c) confidentiality, (d) risks of participating, (e) primary investigator and student investigator contact information, and (g) explanation of voluntary participation. To ensure that participants had consented to participate in the study, they were required

to affirm that they had read, understood, and agreed to the terms highlighted in the research study information sheet.

Data Analysis

In multiple regression analysis, the researcher determines the order in which variables are entered into the regression equation. Before making this analysis, however, the researcher needed to determine whether to control for time since death by first conducting a Pearson correlation analysis to determine whether there was a linear relationship between time since death and bereavement for women whose military spouse had completed suicide. The results show a significant positive relationship between time since death and bereavement: specifically, the shorter the amount of time elapsed, the higher the bereavement scores. Based on these results, the researcher controlled for time since death during the regression analysis.

Pearson correlation coefficients were generated to examine the strength of the relationships between the independent (or predictor) variables and the dependent (or criterion) variable. Descriptive statistics including mean, standard deviation, and range were also generated. A correlational analysis was used in order to test the relationship between each independent (or predictor) variable and the dependent (or criterion) variable. The Statistical Package for the Social Sciences (SPSS), a statistical software package, generated all of the statistics for this research investigation.

Following this analysis, a multiple regression was used to describe the relationships of the independent or predictor variables to the dependent or criterion variable (Lussier & Sonfield, 2004). The design was appropriate because the purpose of the study was to explain the relationships of these variables. To properly explore

multivariate relationships among the current study's variables, it was necessary to use more complex models (Agresti & Finlay, 1997). Multiple regression analysis also allows for the inclusion of variables that can be statistically controlled (Pedhazur, 1982). In multiple regression analysis, the researcher determines the order in which variables are entered into the regression equation. The purpose of this study was to examine the impact on the criterion variable (bereavement) of the independent or predictor variables (stigma, social support, primary and secondary appraisals, and coping). In order to focus on these variables, however, the researcher first needed to control for time since death. The researcher performed a Pearson correlation with these variables as the independent variables. From this first regression, the researcher accounted for the variance of this group of independent variables. The researcher then ran a second multiple regression analysis including the original independent variables and another set of independent variables, the main focus of the study. This allowed the researcher to examine their contribution above and beyond the first group of independent variables (Zientek & Thompson, 2006). This procedure was repeated, creating a set of six models.

Power analysis. The researcher utilized G*Power version 3.1.10 to calculate power needed for the sample. The researcher had an anticipated effect size (R^2) of 0.15. Cohen (Valentine & Cooper, 2003) labeled an effect size small if it was set between .10 and .20. Cohen indicated that many effects sought in personality, social, and clinical-psychological research are likely to be small. This is due to attenuation in validity of the measures employed and the subtlety of the issue frequently involved (Valentine & Cooper, 2003). The small effect size was selected due to limited access to this population and limited resources. A desired statistical power level of 0.8 was set and the p-value for

this study was .05. After putting these requirements into the G*Power equation, the researcher's minimum requirement was 84 participants. Based on these factors and the multiple regressions that were performed, the researcher needed to recruit approximately 120 participants in order to have a valid correlation that was not attributable to chance. The researched collected 194 completed surveys.

Qualitative component. There is growing interest in integrating qualitative data with quantitative results to discover patterns and common threads within a specific topic or issue (Erwin et al., 2011). The main aim of the survey's qualitative questions was to gain insight into the participants' world and capture the participants' unique experiences (naturally occurring events and social or human problems) and their interpretations of these experiences (Jones, 1995; Sarantakos, 1993).

Counselors are interested in the human experience and the trials and tribulations people encounter on their journey. The human experience consists of many layers, including grief. The researcher wanted to better understand how spouses experience grief following the suicide of a service member. Merriam (2002) stated that in a qualitative interpretive study the researcher is "interested in (1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences" (p. 38). Qualitative questions in the survey highlights the researcher's interest in understanding how participants make meaning of a situation, in this case bereavement. The qualitative responses were integrated into the discussion section of the study.

Summary

Chapter 3 described the participants, instrumentation, procedures for data collection, and data analyses for the current study. Chapter 4 will present the results of the data analyses in written and statistical form, with operational definitions of study variables. Chapter 5 will present the summary, conclusions, and future recommendations.

Chapter 4: Results

The purpose of the present study was to explore the relationship of bereavement to each of five variables: perceived stigma, perceived social support, primary appraisal, secondary appraisal, and coping skill among women whose military spouse had completed suicide. Specifically, the study explained the relationship of these survivors' scores on the Core Bereavement Items (CBI) to scores on the Stigma of Suicide & Suicide Survivor (STOSASS); the Multidimensional Scale of Perceived Support (MSPSS); scores on the Stress Appraisal Measure (SAM), specifically the component scores of primary and secondary appraisal; and the Coping Self-Efficacy Scale (CSES). This chapter reports the descriptive statistics for all study variable and the results of the correlational and regression analyses for the hypotheses in the study.

Research Question and Hypotheses

In order to determine the relationships among the above variables—bereavement, stigma, social support, primary appraisal, secondary appraisal, and coping skill—the study used correlational analyses and a multiple regression analysis. Correlational analyses were used to determine the direction and strength of the separate linear relationships between bereavement and each of the other five variables. A multiple regression analysis was conducted to assess the overall relationship of the criterion variable, bereavement, to the five predictor variables, along with the extent to which each predictor variable uniquely contributed to the variance in bereavement (Newton & Rudestam, 1999; Tabachnick & Fidell, 2012). The researcher used Lazarus' Cognitive Stress Theory to conceptualize the following research question and hypotheses:

Research Question

To what extent do five variables—stigma, social support, primary appraisal, secondary appraisal, and coping skill—explain variance in bereavement for women whose military spouse had completed suicide?

Hypothesis 1

What is the relationship between perceived stigma and bereavement in women whose military spouse completed suicide?

Ho: Perceived stigma is negatively associated with bereavement.

Ha: Perceived stigma is positively associated with bereavement.

Hypothesis 2

What is the relationship between perceived availability of social support and bereavement in women whose military spouse completed suicide?

Ho: Perceived availability of social support is negatively associated with bereavement.

Ha: Perceived availability of social support is positively associated with bereavement.

Hypothesis 3

What is the relationship between primary appraisal and bereavement in women whose military spouse completed suicide?

Ho: Primary appraisal is positively associated with bereavement.

Ha: Primary Appraisal is negatively associated with bereavement.

Hypothesis 4

What is the relationship between secondary appraisal and bereavement in women whose military spouse completed suicide?

Ho: Secondary appraisal is negatively associated with bereavement.

Ha: Secondary appraisal is positively associated with bereavement.

Hypothesis 5

What is the relationship between the coping skill and of bereavement in women whose military spouse completed suicide?

Ho: Coping skill is negatively associated with bereavement.

Ha: Coping skill is positively associated with bereavement.

Research Question

After describing the sample, this chapter presents the analyses in the order in which they were performed. First, preliminary data analyses address missing data, inconsistent responses, and outliers. Second, descriptive statistics showed patterns and trends in the data and assessed whether the parametric assumptions had been met (Norusis, 2008). Third, correlation coefficients addressed the research questions and hypotheses. Finally, a hierarchical multiple regression analysis assessed the overall relationships between the predictor variables and the criterion variable, bereavement, along with the amount that each predictor variable uniquely contributed to the variance in bereavement.

Preliminary Analysis

Seven participating organizations contributed a total of 253 surveys. Of that total, 59 surveys were excluded because the respondents were male, and the current study examined bereavement only in women whose military spouses had completed suicide. The remaining 194 were deemed usable for the study. Nine participants failed to answer a question (not the same question for each participant) on some scales; only one item was missing from one scale on each survey. For these responses, an individual's score for the

missing item(s) was estimated using the mean of the items that they answered, resulting in a "corrected sum." No substitutions were made for missing data from demographic measures. Using mean imputation to address missing data can result in bias or distorted data. However, due to the small number of missing data and the fact that for each survey the different respondents did not omit same question, the researcher chose to use mean imputation (Freedman, Pisani & Purves, 2007).

The researcher chose a desired statistical power level of 0.8 and a p-value of .05. After imputing these requirements into the G*Power equation, the minimum sample size required with an effect size of .15 and power of .80 was 84 participants. Based on these factors and the multiple regressions that were to be conducted, the researcher attempted to recruit a minimum of 120 participants to allow for attrition. The completed study included 194 participants.

Descriptive statistics. Descriptive statistics provide simple summaries of the demographic characteristics of the sample, as well as descriptors such as means and standard deviations for these characteristics. (Mean standard deviations and standard error were also calculated for the principle measures of this study, as shown below.)

The sample was a well-educated, racially diverse group of women who had lost their military spouse to suicide (see Tables 1-6). The majority of participants were non-Hispanic white females who had attended at least some college. Most were affiliated with the Army and were married. The majority of the partners had committed suicide while on active duty.

Table 1

Frequency Distribution of Female Survivors' Racial/Ethnic Heritage

Racial/Ethnic Heritage	*f*	%
Non-Hispanic white or Euro-American	105	54.1
Black or Afro-Caribbean or African American	32	16.5
Latino or Hispanic American	34	17.5
East Asian or Asian American	10	5.2
South Asian or Indian American	1	.5
Middle Eastern or Arab American	5	2.6
Native American or Alaskan Native	7	3.6

Table 2

Frequency Distribution of Female Survivors' Level of Education

Survivors' Level of Education	*f*	%
High school diploma	1	.5
Some college	36	18.6
Associate's degree	40	20.6
Bachelor's degree	48	24.7
Some graduate school	27	14.0
Master's degree	41	21.2

Table 3

Frequency Distribution of Deceased Service Members' Education

Deceased Service Members' Education	*f*	%
High school diploma	1	.5
Some college	3	1.5
Associate's degree	42	21.6
Bachelor's degree	53	27.3
Some graduate school	24	12.4
Master's degree	26	13.4
Doctorate	3	1.5
Missing response(s)	1	.5

Table 4

Frequency Distribution of Affiliated Military Branch

Military Branch	*f*	%
Army	123	63.4
Marine Corps	35	18.0
Navy	22	11.3
Air Force	7	3.6
Coast Guard	6	3.1
Missing response(s)	1	.5

Table 5

Frequency Distribution for Service Members' Classification

Service Members' Classification	*f*	%
Active Duty?		
Yes	169	87.1
No	25	12.9
Reserve?		
Yes	81	41.8
No	110	56.7
Missing	3	1.5
National Guard?		
Yes	72	37.1
No	120	61.9
Missing response(s)	2	1.0

Table 6

Frequency Distribution of Relationship Status

Relationship Status	*f*	%
Married	168	88.9
Divorced	2	1.1
Living together	19	10.1
Missing	5	2.6

The mean age of respondents was 33.48 years (*SD* = 5.20; *SE*= .373); their age ranged from 23-50 years. The mean number of children aged 17 or under that were a product of the relationship with the service member was 1.12 (*SD* = .79; *SE* = .064); the

range was 0-4. The mean number of prior suicide attempts by the service member (known/confirmed by the surviving female spouse) was 1.31 (*SD* = 1.06; *SE* = .096); the range was 0-4. (See Table 7.)

Table 7

Mean, Standard Deviation, Standard Error of Additional Descriptive Statistics

Variable	*N*	*M*	*Min*	*Max*	*SD*	*SE*
Age of deceased	194	33.48	23	50	5.20	.373
Children as product of the relationship	154	1.12	0	4	.79	.064
Prior suicide attempts of deceased	121	1.31	0	4	1.06	.096

Note: Min = the minimum value in the variable data set; Max = the maximum value in the variable data set.

Control variable. There was one control variable in this study, time since death (TSD). This was measured by a single question on the survey: "How long has it been since your spouse completed suicide?" In order to determine whether this variable should be considered an influential factor to be controlled for, a correlation analysis was conducted between time since death and bereavement level. (When conducting a correlation analysis of two co-occurring variables, the researcher can determine whether change in one is accompanied by systematic change in the other.)

A Pearson correlation analysis was conducted to determine whether there was a linear relationship between time since death and bereavement for women whose military spouse had completed suicide. The results, $r(194) = .277$, $p < .01$, show a significant positive relationship between time since death and bereavement; that is, the shorter the amount of time elapsed, the higher the bereavement scores. Based on these results, the researcher controlled for time since death during the regression analysis.

Measures

The measure used to assess the criterion variable in this study was Core Bereavement Items (CBI), which assessed the individual's degree of bereavement. The measures used to assess the predictor variables in this study were: (a) Primary Stress Appraisal Measure (PSAM) for primary appraisal, (b) Secondary Stress Appraisal Measure (SSAM) for secondary appraisal, (c) Coping Self Efficacy Measure (CSES) (d) Multidimensional Scale of Perceived Support (MSPSS) for social support, and (e) Stigma of Suicide and Suicide Survivor Assessment (SOSASS) for stigma. These measures are listed in the order in which they were entered into the multiple regression formula.

Table 8 contains the means, standard deviations, standard errors, and Cronbach alphas for of all the measures used in this study.

Table 8

Means, Standard Deviations and Standard Errors Summary for Measures

Measures	M	SD	SE	α
CBI Score	37.79	4.98	0.36	.776
PSAM Score	20.81	4.24	0.30	.784
SSAM Score	20.35	4.71	0.34	.784
CSES Score	175.82	30.86	2.22	.952
MSPSS Score	64.45	8.80	0.63	.898
SOSASS Score	38.83	6.12	0.44	.780

Note: N = 194, CBI = Core Bereavement Items, PSAM =Primary Stress Appraisal Measure, SSAM = Secondary Stress Appraisal Measure, CSES = Coping Self Efficacy Scale, MSPSS = Multidimensional Scale of Perceived Support, SOSASS = Stigma of Suicide and Suicide Survivor.

An examination of Cronbach's alpha coefficient determined the internal consistency of each measure. The general standard for evidence of an adequate reliability of measures is defined by a minimum of a .70 Cronbach's alpha coefficient (Hair et al., 2009). Starting from 0, the closer the alpha is to 1, the greater the reliability of the measure. Reliability analyses were conducted for each of the measures.

The Core Bereavement Items (CBI) measure examines bereavement and is composed of 17 items, each rated on a 4-point scale (0-3). For this sample, the scale mean was 37.79; the standard deviation was 4.98; standard error was 0.36. Reliability analysis of the CBI indicated that the measure had an estimated reliability of .776, suggesting that the measure was reliable.

The Stress Appraisal Measure (SAM) is a 19-item scale that includes two subscales, the Primary Stress Appraisal Measure (PSAM) and Secondary Stress Appraisal Measure (SSAM). For this sample, the PSAM scale mean was 20.81; the standard deviation was 4.24; the standard error was 0.30. For the SSAM scale, the mean was 20.35; the standard deviation was 4.71; the standard error was 0.34. Reliability analysis of the SAM indicated that the measure had an estimated reliability of .784, suggesting that the measure was reliable.

The Coping Self Efficacy Scale (CSES) measure is composed of 25 items, each rated on an 11-point scale. The higher the score, the more effective the participant's coping skill. Responses to all 25 items must be summed to yield the final composite score, ranging from 0 to 260. For this sample, the scale mean was 175.82; the standard deviation was 30.86; the standard error was 2.22. Reliability analysis of the CSES indicated that the measure had an estimated reliability of .952, suggesting that the measure was reliable.

The Multidimensional Scale of Perceived Support (MSPSS) measure examines perceived social support. For this measure, the scale mean was 64.45 (moderate acuity); the standard deviation was 8.80; the standard error was 0.63. Reliability analysis of the

MSPSS indicated that the measure had an estimated reliability of .898, suggesting that the measure was reliable.

The Stigma of Suicide and Suicide Survivor (SOSASS) measure examines perceived stigma. For this sample, the scale mean was 38.83; the standard deviation was 6.12; the standard error was 0.44. Reliability analysis of the SOSASS indicated that the measure had an estimated reliability of .780, suggesting that the measure was reliable. Table 8 presents a summary of statistics for the measures.

Correlation Results

Using SPSS Student Version 22.0 software, a Pearson correlation coefficient was used to measure the relationship of bereavement, primary appraisals, secondary appraisals, coping skill, social support, and stigma among women whose military spouses had completed suicide. The correlation coefficient measures the strength and direction of the relationship among variables. When conducting a correlational analysis of two co-occurring variables, the researcher can indicate whether change in one is accompanied by systematic change in the other.

Examination of intercorrelations among study variables indicated statistically significant correlations between bereavement and each of four independent variables: primary appraisal, secondary appraisal, coping skill, and stigma. The results for each correlation will be presented separately and summarized below as well as in Table 9.

Primary stress appraisal (as assessed by the PSAM). A Pearson correlation coefficient was calculated to determine whether there was a linear relationship between primary stress appraisal and bereavement in women whose military spouses had completed suicide. Based on the result, $r(193) = -.309$, $p < .01$, there is enough evidence

to reject the null hypothesis (Ho: There is no linear relationship between primary appraisal and level of bereavement), suggesting for this sample a weak negative linear relationship between bereavement and primary stress appraisal; that is, a survivor who evaluated the death of her spouse as stressful was more likely to experience bereavement.

Secondary stress appraisal (as assessed by the SSAM). A Pearson correlation coefficient was calculated to determine whether there was a linear relationship between secondary stress appraisal and bereavement in women whose military spouses had completed suicide. Based on the result, $r(193) = -.309$, $p < .01$, there is enough evidence to reject the null hypothesis (Ho: There is no linear relationship between secondary appraisal and level of bereavement), suggesting that for this sample there is a weak negative linear relationship between secondary stress appraisal and bereavement; that is, a survivor who made a negative appraisal of her spouse's death was more likely to experience bereavement.

Coping skill (as assessed by the CSES). A Pearson correlation coefficient was calculated to determine whether there was a linear relationship between ability to cope and bereavement in women whose military spouses had completed suicide. Based on the result, $r(193) = -.174$, $p = .015$, there was enough evidence to reject the null hypothesis (Ho: There is no linear relationship between coping skill and the level of bereavement), suggesting for this sample a weak negative linear relationship between coping skill and bereavement; that is, a survivor who felt that she had reduced ability to cope with her spouse's death was more likely to experience bereavement.

Social support (as assessed by the MSPSS). Another Pearson correlation coefficient was calculated to determine whether there was a linear relationship between

perceived availability of social support and bereavement in women whose military spouses had completed suicide. Based on the result, $r(193) = -.039$, $p = .594$, there was not enough evidence to reject the null hypothesis (Ho: There is no linear relationship between perceived availability of social support and level of bereavement), suggesting that for this sample there was not a linear relationship between perceived social support and bereavement.

Stigma (as assessed by the S0SASS). A Pearson correlation coefficient was calculated to determine whether there was a linear relationship between perceived stigma and bereavement for women whose military spouses had completed suicide. Based on the result, $r(193) = .252$, $p < .01$, there was enough evidence to reject the null hypothesis (Ho: there is no linear relationship between perceived stigma and bereavement), suggesting a weak positive linear relationship between perceived stigma and bereavement; that is, a survivor who perceived stigma associated with her spouse's death experienced more symptoms of bereavement.

Table 9

Correlations for Independent, Dependent and Control Variables

	CBI	TSD	PSAM	SSAM	MSPSS	CSES
1. TSD	.277*					
2. PSAM	-.309*	-.167				
3. SSAM	-.309*	-.151	.602*			
4. MSPSS	-.039	.032	.379*	.172*		
5. CSES	-.174*	-.167*	.494*	.473*	.585*	
6. SOSASS	.252*	.095	-.196*	-.221*	.022	-.253

Note: N = 194, CBI = Core Bereavement Items, TSD = Time since death,
PSAM = Primary Stress Appraisal Measure, SSAM = Secondary Stress Appraisal Measure,
CSES = Coping Self Efficacy Scale, MSPSS = Multidimensional Scale of Perceived Support,
SOSASS = Stigma of Suicide and Suicide Survivor.
*Significant at $p < .05$.

Multiple Regressions

Multiple regression assumptions. For a non-experimental design, a hierarchical multiple regression is based on four assumptions: normality, linearity, independence, and multicollinearity. The researcher assessed these four assumptions. The first assumption is that of a normal distribution for both the independent and dependent variables. In order to meet this assumption, the researcher looked at a visual representation (a histogram) of the frequency of the data, showing the number of times each value occurred. Based on the shape of the histograms, a normal distribution was assumed for each variable.

The second assumption is that of linearity or the assumption that the relationship between the independent and dependent variables is neither curvilinear nor otherwise corresponding. Based on a visual inspection of the probability plots, this assumption was met.

The third assumption, independence of the error, is presumed to be met but cannot be verified at this point. However, the probability plots suggest independence. The fourth assumption is that the independent variables are distinct and that homoscedasticity does not exist. Reliability and multicollinearity statistics (e.g., variance inflation factor (VIF), tolerance, beta statistics) confirm distinct variables (Zientek & Thompson, 2006).

Regression analysis. A hierarchical regression was performed to determine whether the independent variables were related to, or could mathematically predict, the occurrence of the outcome dependent variable. The multiple correlation coefficient *R* was calculated and was interpreted as the correlation between the independent, or predictor variables, and the dependent variable. The analysis determined the magnitude of the relationship between the combined independent variables and the dependent variable.

(This is the regression coefficient representing the change in the dependent variable per unit change in the combined independent variables. The portion of the variance explained is understood as R^2, which is the sum of squares plus the error squared.)

The five predictor variables in the regression analysis were primary appraisal (scores on the PSAM), secondary appraisal (scores on the SSAM), coping skill (scores on the CSES), perceived social support (scores on the MSPSS), and stigma (scores on the SOSASS). The criterion variable was bereavement (scores on the CBI). The control variable was time since death (TSD).

In hierarchical multiple regression analysis, the researcher determines the order in which variables are individually entered into the regression equation based on theoretical considerations. Generally, that order ensures that variables that we want to control for, such as demographic variables are considered and that the variance of the dependent variable is not explained away on the basis of these control variables. Next, the variables of theoretical interest are entered. In this case, Lazarus' Cognitive Stress Theory states that it is possible to discern the order of a person's reaction to a particular event. The researcher used this theory as a guideline to determine the sequence of variables. The variables were entered into the regression using the following equation:

> Bereavement = {age, gender} + {primary appraisal} + {secondary appraisal} + {coping skill} + {perceived social support} + {perceived stigma}

The alpha level required for a variable to be entered into the equation was the conventional .05.

The first step of the regression equation, Model 1, evaluated the predictive value of the control variable time since death (TSD). The regression of TSD onto bereavement yielded an equation with $R = .277$, $R^2 = .077$, $F\ (1, 125)$, $p < .001$. The portion of the

variance explained by time since death was 7%. Thus, time since death was statistically significant in determining bereavement. (See Table 10.)

Next, Model 2 evaluated the combination of TSD and primary appraisal. The regression of this combination onto bereavement yielded a model with $R = .431$, $R^2 = .186$, $F\ (2, 124)$, $p < .001$. The portion of variance explained in the model was 18.6%, an increase of 11.6%. Thus, the addition of primary appraisal (PSAM) accounted for significantly more variance in bereavement than TSD alone.

Model 3 evaluated the combination of TSD, primary appraisal, and secondary appraisal. This regression yielded a model with $R = .454$, $R^2 = .206$, $F\ (3, 123)$, $p < .001$. The portion of variance explained by this combination (time since death, primary appraisal, and secondary appraisal) was 20.6%, an increase of 2%. Model 3 was statistically significant in determining bereavement. The inclusion of the secondary appraisal variable added significantly to the explanation of bereavement and explained an additional 1.4 % of the variance. Thus, while the overall model was significant, only a small portion of the variance was accounted for by the inclusion of secondary appraisal.

Table 10

Hierarchical Multiple Regression

Model	R	R^2	*t*	*p*	B	β	R^2 Change
Model 1	.277	.077	61.600	.000	.049	.277	0
TSD			3.228	.002			
Model 2	.431	.186	19.482	.000			.109
TSD			2.696	.008	.039	.222	
PSAM			-4.074	.000	-.406	-.335	
Model 3	.454	.206	19.646	.000			.02
TSD			2.618	.010	.038	.214	
PSAM			-1.947	.054	-.254	-.209	
SSAM			-1.782	.077	-.192	-.191	
Model 4	.455	.207	16.971	.000			.001
TSD			2.622	.010	.038	.216	
PSAM			-1.952	.053	-.262	-.216	
SSAM			-1.788	.076	-.199	-.198	
CSES			.266	.791	.004	.025	
Model 5	.471	.221	12.989	.000			.015
TSD			2.307	.023	.034	.192	
PSAM			-2.359	.020	-.335	-.276	
SSAM			-1.111	.269	-.132	-.132	
CSES			-0.710	.479	-.012	-.083	
MSPSS			1.505	.135	.091	.167	
Model 6	.482	.232	9.026	.000			.010
TSD			2.329	.022	.034	.194	
PSAM			-2.187	.031	-.312	-.257	
SSAM			-1.105	.271	-.131	-.131	
CSES			-0.320	.750	-.006	-.039	
MSPSS			1.107	.271	.069	.128	
SOSASS			1.280	.203	.086	.112	

Note: TSD = Time Since Death, PSAM = Primary Stress Appraisal Measure, SSAM = Secondary Stress Appraisal Measure, CSES = Coping Self Efficacy Scale, MSPSS = Multidimensional Scale of Perceived Support, SOSASS = Stigma of Suicide and Suicide Survivor.

Model 4 evaluated the combination of time since death, primary appraisal, secondary appraisal, and coping skill. The regression yielded a model with $R = .455$, $R^2 =$

.207, F (4, 122), $p < .001$. The portion of variance explained by Model 4 was 20.7%, a 1% increase in variance over Model 3.

Model 5 included time since death, primary appraisal, secondary appraisal, coping skill, and social support. The regression yielded a model with $R = .471$, $R^2 = .221$, F (5, 121), $p < .001$. The portion of variance explained by Model 5 was 22.1%, a 1.4% increase in variance over Model 4. Thus, social support was an important contributor to the explanatory model.

Model 6 included time since death, primary appraisal, secondary appraisal, coping skill, social support, and stigma. The regression yielded a model with $R = .482$, $R^2 = .232$, F (6, 120), $p < .001$. The portion of variance explained by Model 6 was 23.2%, an increase of 1% over Model 5. Thus, stigma is an important contributor to the occurrence of bereavement; even after the other variables were included, it still contributed to the occurrence.

Qualitative Component

The survey included three open-ended questions. The aim of asking these qualitative questions was to gain insight into the participants' worldview, to capture their unique experiences and their interpretations of these experiences related to the death of their spouses. The information gathered by the open-ended questions was used to elucidate the quantitative data. The participants were not required to answer the open-ended section of the survey, as the answers were used as a supplemental tool. To analyze the qualitative responses, the researcher identified the most commonly recurring words or phrases used by participants for each question.

Question 1. The first open-ended question was "What do you recall about how you responded to the death of your spouse at the time?" A total of 55 (28.4%) participants responded. Of these, 24 stated recalling "sadness" as most frequent. Fifteen participants indicated disbelief, shock, feelings of helplessness, or feelings of fear. Other participants' responses included "trying not to think about what had happened," crying, sobbing, physical symptoms, physical pain, collapsing, fainting, being unable to forget what happened, and being unable to recall or process the event.

Question 2. The second open-ended question was "What was the most painful part of the experience to you?" A total of 68 (35.1%) participants responded. Of these, 50 reported physical and emotional numbness and only partial recollection learning about the death (e.g., who told them, where they were when notified, immediate responses). These participants indicated that they could recall parts of the experience but struggled with identifying feelings or emotions directly following the event. Other responses included being hospitalized, contemplating suicide, refraining from eating, and feeling that their future has been lost. Although four reported contemplating suicide following the death of their spouse, no participants reported actually attempting suicide at any point.

Question 3. The third open-ended question was "How has this experience affected your view of yourself or your view of your world?" A total of 36 (18.6%) of participants responded. Of these, 15 participants indicated that they no longer feared death, while 7 reported having a negative reaction to relationships. Eleven participants reported that they perceived stress as more threatening than before suicide of their spouse and were unaware of the triggers that brought on stress during the bereavement process.

Ten participants indicated that their view of love had changed since the loss of their spouse. Nine participants wrote about making an effort to enjoy life after the suicide of their spouse.

Summary

The sample consisted of 194 women whose military spouses had completed suicide. These women were recruited from seven private non-profit grief and bereavement outreach organizations across the country. Participants completed the "Bereavement Experience of Military Spouse Suicide Survivors" survey. After addressing missing data, the researcher calculated mean scores for each measure, then conducted correlational analyses in order to examine whether a relationship existed between bereavement and each of five independent variables: primary appraisal, secondary appraisal, coping skill, perceived social support, and perceived stigma. The main correlational findings indicated weak negative relationships between bereavement and primary appraisal, bereavement and secondary appraisal, and bereavement and coping skill. There was a weak positive correlation between bereavement and stigma.

Multiple regression analysis assisted in evaluating the effects of the independent variables on the dependent variable of bereavement. The results highlight that these variables are important in the study of bereavement and that the combination of variables significantly contributes to bereavement. Model 6 explained 23% of the variance, suggesting that bereavement is a complex process that involves several factors including appraisal, coping skill, social support, and stigma.

Qualitative results identified themes that furthered understanding of the bereavement experience of women whose military spouses had completed suicide.

Participant responses suggested that emotional symptoms (e.g., forgetfulness, helplessness, disbelief, shock), as well as physical symptoms (e.g., headaches, dizziness, low/high appetite), followed the event. Participants also identified that major life changes (e.g., in geographical location, in employment) occurred for the survivor. Participants also described struggling to identify their emotions and physiological feelings following the death of their spouses. Chapter 5 will interpret the study results, provide limitations, and present recommendations for future research.

Chapter 5: Conclusions and Recommendations

According to the National Institutes of Mental Health (NIMH), suicides in the U.S. military surged to a record number of 349 in 2013. This compares to 295 American deaths in actual combat in Afghanistan in 2012 and far exceeds the 201 military suicides in 2011 (NIMH, 2013). Some private experts predict that the trend will worsen this year. Defense Secretary Leon Panetta referred to military suicide as an "epidemic." The Army had the highest number of suicides among active duty troops last year, 182; the Air Force recorded 59 suicides, the Navy 60. The Marine Corp had the largest percentage increase in a period of two years (2008 - 2010). All branches of the military show record highs (Lamorie, 2011). When a service member completes suicide, the military community is less equipped to cope; indeed, members are conditioned not to process their emotions related to grief. This response stands in contrast to the detailed rituals and traditions of response to death that occurs in the course of military action (Zhang & Jia, 2009).

Given the increased number of suicides in the military and need the for additional information surrounding bereavement following a suicide, this study used the conceptual framework of Lazarus' Cognitive Stress Theory (LCST) to examine the relationships of five variables—primary stress appraisal, secondary stress appraisal, coping skill, social support, and stigma—to bereavement. This study emphasized Lazarus' underlying belief that times of uncertainty and difficulty (in this study, bereavement) reveal how people cope with loss. Much of the literature on coping with bereavement addresses the idea that all human beings encounter difficult situations and employ strategies for dealing with and mitigating perceived stress (Groomes & Leahy, 2002; Zhang & Jia, 2009; Lamorie, 2011; Jordan, 2001). This idea is supported in the bereavement literature reporting that grief is an individual process that presents differently depending on the environment, person, and

death (Callahan, 2000). Antonovsky (1993) suggested that stressors (e.g., single parenthood, financial constraints) that appear during bereavement, as well as the coping skills developed in the aftermath, are an inherent part of the human experience. This study explored the needs of surviving spouses in order to identify factors to inform bereavement programs and interventions and programs for military spouses.

This chapter will (a) summarize the current research study with a review of the purpose, research hypothesis, methodology, and salient findings of the study; (b) interpret the research findings and draw conclusions; (c) integrate the findings of this research with previous research; (d) state the limitations that might impact interpretation and generalization of the results; and (e) discuss the conclusions, implications, and recommendations for the direction of future research.

Summary of the Study

This study investigated the linear relationship between the dependent variable of bereavement and each of five independent variables—primary appraisal, secondary appraisal, coping skill, perceived social support, and stigma—among women whose military spouses had completed suicide. The sample was comprised of a well-educated, racially diverse group of 194 women. The majority of the sample were married, non-Hispanic white females whose partners had completed suicide while on active duty. Most of the participants had attended some college and were affiliated with the Army.

In this study, each construct was measured by an assessment. The construct of bereavement was measured by the Core Bereavement Items (CBI). Primary and secondary stress appraisal were measured by the Stress Appraisal Measure (SAM). The construct of perceived coping skill was measured by the Coping Self Efficacy Scale (CSES). The construct of perceived social support was measured by the

Multidimensional Scale of Perceived Social Support (MSPSS). Finally, the construct of stigma was measured by the Stigma of Suicide and Suicide Survivor (SOSASS). All measures showed good to excellent reliability (a range of .78 to .95). To capture participant thoughts and behaviors not assessed by the aforementioned measures, the survey asked three qualitative, open-ended questions.

The following research question and hypotheses guided the study. (Although the hypotheses are components of the overall research question, they appear first here so as to show correlations of the separate pairs of variables and before showing their overall relationship.) Hypothesis 1 stated that there would be a relationship between bereavement and stigma; this positive relationship was significant. Hypothesis 2 stated that there would be a relationship between bereavement and social support; the relationship was not statistically significant. Hypothesis 3 stated that there would be a relationship between bereavement and primary appraisal; this positive relationship was significant. Hypothesis 4 stated that there would be a relationship between bereavement and secondary appraisal; this negative relationship was significant. Hypothesis 5 stated that there would be a relationship between bereavement and coping skill; this negative relationship was significant.

Using hierarchical regression analysis, the research examined the relationship of five independent variables—primary appraisal, secondary appraisal, coping skill, social support, and stigma—to bereavement. The relationship was statistically significant. The model was a good fit and controlled for the time of death of the partner who had completed suicide. Therefore, for this sample, the five independent variables are components of a statistically significant model.

The next sections will explore the findings of the study and their possible interpretations.

Discussion and Interpretation of Findings

Hypothesis 1. The first hypothesis in this study examined whether there was a positive relationship between stigma and bereavement among military spousal suicide survivors. Correlational analysis identified a statistically significant but weak positive linear relationship. This suggests that when survivors perceived increased stigma regarding the suicide of their spouse, they showed more symptoms of bereavement.

Research supports that the stigmatization experienced by survivors may complicate their bereavement experiences (Cvinar, 2005; Jordan, 2001; McIntosh, 2003). Knieper (1999) suggests that bereavement following suicide is not the same as that following natural death. He reported that stigma and avoidance continue to be central issues for suicide survivors. Psychological projection of feelings of rejection and the actual social response to the survivor interact in a complicated manner. Knieper suggests that "a discrepancy exists between what support survivors actually receive and what they perceive as receiving from society" (1999, p. 256). Worden (2009) also notes that there is a difference between suicide bereavement and other forms of bereavement, suggesting that suicide is often associated with stigma and a sense of shame. Such shame can result in the complete isolation of the bereaved during the period immediately following the suicide event.

Eaton and associates (2008) examined survivors' barriers to seeking mental health treatment after the suicide of their partners and found that spouses were 70% less likely to seek treatment following a suicide, as compared to a natural death, and that stigma was

a recurrent theme in the qualitative analysis. However, Eaton's study did not directly examine the impact of stigma on bereavement. It did show that stigma is an important variable that needs to be investigated further. The present study showed similar results to Eaton's (2008) research.

The qualitative comments recorded in the open-ended question section of the survey support the study findings. For example, one participate responded that "I blamed myself for not doing more, not being there enough, or not being there when the death happened." Another participant noted, "Suicide is one of the most difficult and painful ways to lose someone we love, because we are left with so many unanswerable questions." One participant expressed "anger at family members for not assisting me with my husband and anger at physicians that treated my husband and were not able to see the warning signs or provide assistance in caring for them properly. I was then left with the scars after the death and had to explain to people what happened. I felt I got blamed and it was not my fault." Several participants expressed "numbness and isolation." Responding to stigma, people with mental health problems internalize public attitudes and often become embarrassed or ashamed. This can lead them to want to conceal symptoms and fail to seek treatment (President's New Freedom Commission Mental Health Report, 2003). These responses assist in understanding the impact of stigma upon the military spouse survivors and imply that unanswered questions, as well as guilt, are important factors to explore in the grief process following a suicide.

Today stigmatization following a suicide can be subtle. It can manifest in overt actions against the suicide survivor, as well as omitted actions. When people experience the untimely loss of a family member, they generally expect others to offer comforting

and supportive responses. As the expectations to gain nurturing responses remain unfulfilled, people can feel offended, wounded, or abandoned (Neimeyer & Jordan, 2002).

Hypothesis 2. The second hypothesis in this study examined whether there was a negative relationship between social support and bereavement among military spousal suicide survivors. Correlational analysis showed no statistically significant linear relationship between social support and bereavement. Research has suggested that the quality of social support is more important than the quantity (Callahan, 2000). Both the quantity and quality of social support are difficult to measure and as a result could have produced the non-significant findings.

Failure to find a significant correlation between social support and bereavement was unexpected, since increase in social support is usually correlated with a decrease in depression. McMenamy et al. (2008) identified depression and a lack of energy as substantial barriers to obtaining social support. Thus, depression is one of the reasons assistance is needed, but because of a loss of energy and motivation, depression becomes an important barrier to receiving help. People who have experienced a traumatic event are more likely to perceive barriers and not request medical and mental health services due to this lack of energy, lack of trust in professionals, and other depressive symptoms (Amaya-Jackson et al., 1999). The present qualitative results supports McMenamy et al. (2008) and Amaya-Jackson et al. (1999); one participant wrote in response to the open-ended portion of the survey, "This event put my life in a shadow and I find it difficult to connect with people." In the open-ended portion, 12 participants indicated that they had been hospitalized at some point following the suicide of their spouse, and 37 participants

used the words “depressed” and “numb” in their responses. Another participant reported, “Military people deeply felt helpless so they did not reach out, neither did I.”

Several participants indicated that their main focus became caring for their children and assisting their children with the grief process. One participant wrote, “My support system has become my children in a way and I want to focus all efforts devoted in my children. Only my children and I can understand what happen and together we can assist each other through the experience. I do not need anybody else except my children. As long as they are okay, I am okay.” In this study, 154 participants (79%) indicated that they have children. It is possible that the participants viewed children as a support system and therefore saw little need for additional social support or focused solely on providing for the children.

The study finding suggests that participants may have limited access to or knowledge of the support available to them. Several participants indicated that lack of trust in professionals and a reluctance to ask for help were major barriers in obtaining support. McMenamy et al. (2008) stated that over one third of their participants reported moderate to high levels of difficulty with two areas: (a) lack of information available about where to find resources and (b) lack of availability of actual resources.

McMenamy et al.’s finding suggests that the social support measure, used in the present study, the Multidimensional Scale of Perceived Social Support (MSPSS), may not be useful in assessing social support among persons whose military spouses committed suicide. The MSPSS does not delineate various types of social support (e.g., person, information). It measures social support in the general sense, which is an individual’s feeling of belonging to a social network of friends, family, or community

that one can turn to for advice and assistance in times of need (Uchinao, 2006). Research has shown that in terms of bereavement and social support, the quality and type of social support can be more important that the general umbrella of social support. Therefore, the MSPSS assessment of social support may limit participants' responses due to length and types of questions. These limitations could have hindered examination of the specific ways in which social support is related to bereavement for military suicide.

Research suggests that the availability of social support can provide a sense of belonging, increased sense of self-worth, and a feeling of security during the grieving process. However, further research is needed to identify the factors that hinder people from giving support to the bereaved—and factors that facilitate the process (Bath, 2009). Another reason that social support may be difficult to seek out or receive is the survivors' internalized shame and guilt regarding the role they might have played in the suicide or failure to recognize signs of suicidal tendencies in their spouses. The stigma and social isolation that survivors experience can interfere with seeking social support and the willingness of social networks to come to give that support (Provini et al., 2000).

Limited social support is common for suicide survivors (Callahan, 2000). Shame and guilt surrounding a suicide may reduce survivors' ability to seek social support; however, high social support could be linked to positive mental health. This highlights the possible importance, for suicide survivors, of feeling supported; having this social support could result in reduced stigma. However, the type of social support, and the appropriate way to reach survivors despite barriers, have proven difficult to elucidate.

Hypothesis 3. The third hypothesis in this study examined whether there was a positive linear relationship between primary appraisal and bereavement. Primary

appraisal is the process of perceiving a threat to oneself and is one component of Lazarus' Cognitive Stress Theory, which provided the framework for this particular study. Lazarus and Folkman (1984) define stress as the relationship between a person and his or her environment that is perceived by the person as exceeding the person's resources and endangering well-being. According to Lazarus' Cognitive Stress Theory, perceived stress is associated with the manner in which people evaluate, appraise, and cope with difficulties. Theoretically, primary appraisal is defined as the individual's expressed concern in terms of harm, loss, threat, or challenge (Lazarus & Folkman, 1984). Harm and loss appraisals refer to loss or damage that has already taken place; threat appraisal refers to anticipated harm or loss; and challenge appraisal refers to the opportunity for mastery or growth (Lazarus & Folkman, 1984). Correlational analysis identified a statistically significant but weak relationship between primary appraisal and bereavement, suggesting that survivors who perceived the death of a spouse to be stressful were more likely to experience bereavement. This result is supported by the bereavement literature (Cvinar, 2005; Jordan, 2001; McIntosh, 2003).

Lazarus' Cognitive Stress Theory has not been used in the bereavement literature thus far, nor has it been studied within the military culture. However, this theory has served as a useful lens for examining the interaction between a person and his or her varying responses to situational demands. Burton, Farley and Rhea (2009) studied the relationship between level of perceived stress and somatization (stress expressed in physical symptoms) experienced by spouses of deployed versus non-deployed servicemen. These researchers found that spouses of deployed personnel had significantly higher perceived stress scores than spouses of non-deployed service members.

Somatization scores were also significantly higher in spouses of deployed versus non-deployed servicemen. Perceived stress and somatization showed a strong, significant positive correlation, suggesting that clinicians dealing with military bereavement should be familiar with somatic symptoms, treatments used for somatization, and adjunct community resources available to patients with stress-related somatization.

Even though Burton, Farley, and Rhea (2009) did not examine military spouses or bereavement, the same idea of experiencing psychological distress in the form of physical symptoms can be translated to stress appraisal. Psychological stress can appear in the form of physical symptoms following the loss of a spouse and bereavement. Their study supports the idea that the primary appraisal of stress relates to feelings of anxiety and, in this case, bereavement. Lazarus argues that primary appraisal shows that it is not the situation, but the way a person interprets the situation, that affects a person's experience. The way a person appraises a situation can impact the way the person reacts to it. Primary appraisal is an important step in processing the stress of bereavement, since grieving is such an individualized experience.

The qualitative comments recorded in the open-ended question portion of the survey support the statistical relationship between primary appraisal and bereavement. For example, one participant indicated that her world view had changed when she responded, "My world has become gray, I have made myself closed. I live in a rain cloud and now know that good people do bad things that change lives." The participant had changed her world view such that her world became a smaller, more restricted place. Another participant stated, "Following this experience, I do not believe that the world, the inner world is very narrow." Another stated, "This death, this loss, makes small things

seem insignificant. Material things are insignificant. Relationships with people are more important. I don't have a fear of dying and in fact, feel like I will die at a young age."

This concept of primary appraisal is based on the idea that emotional processes are dependent on a person's expectancies about the significance and outcome of a specific event The same event within the same community (in this case, suicide within the military) can elicit responses of different quality, intensity, and duration due to individuality in experiences and personality (Krohne et al., 2002). The different kinds of stress identified by the primary appraisal may be embedded in specific types of emotional reactions, thus illustrating the close conjunction of the fields of stress and emotions (Lazarus & Folkman, 1984).

Hypothesis 4. The fourth hypothesis examined whether there was a negative relationship between secondary appraisal and bereavement. Secondary appraisal is a theoretical construct in Lazarus' Cognitive Stress Theory and is explored following primary appraisal. Secondary appraisal refers to the question "What can I do?" A key aspect of secondary appraisal is the individual's judgment about the extent to which he or she can control the outcome of a situation. This indicates that the greater the perception of stress, the less likely a person will be able to cope with these stressors. Secondary appraisals focus on what the individual can do to overcome or prevent harm. Correlational analysis identified a weak but statistically significant negative relationship between secondary appraisal and bereavement, suggesting that survivors who made a negative appraisal of their ability to control the outcomes of their spouse's death were more likely to experience bereavement.

The qualitative comments recorded in the open-ended section of the survey support this finding. For example, one participant indicated her appraisal of the situation by stating, "Everyone must learn to face the misfortune, because life on the road will not be smooth." Another stated that "Time can dilute all and I must face life and accept my reality"; yet another wrote, "I want to work on longer range goals to give myself some structure and direction to my life and not focus on my loss. I am only interested in rebuilding my life." However, other participants stated that it was harder to assess the loss and to move forward after the suicide. One participant stated, "I often find myself complaining to God about what seems senseless or unjust and unfair. I find myself bogged down in fear and even anger at myself or the person who died and 'left' me. I do not accept what happen to me and my children." Some participants reported not knowing what to do. An example of this is the statement, "I perceive stress as threatening. I feel totally helpless."

Perceived self-efficacy, defined as a belief about one's ability to perform a specific behavior, is a pivotal component of social cognitive theory in that beliefs of personal efficacy determine the acquisition of knowledge on which skills are founded (Bandura, 1997). Beliefs about one's ability to perform specific coping behaviors (SCB) would be expected to influence outcomes of interventions designed to improve coping. This concept is also relevant to stress and coping theory and the secondary appraisal of controllability. Part of secondary appraisal is the judgment that an outcome is controllable through coping; another part addresses the question of whether or not the individual believes he or she can carry out the requisite coping strategy. Beliefs about self-efficacy are not a general disposition; a high level of efficacy in one domain does not

necessarily correlate with high levels of self-efficacy in other domains (DiClemente, 1986; Hofstetter, Sallis, & Hovell, 1990).

Bereavement may result in a state that is generated, maintained, and eventually altered by a specific pattern of appraisals. These appraisals, identified as primary and secondary, are determined by a number of personal and situational factors. These factors could influence and possibly navigate the personal side of the stress, which is in this case the death of a spouse. To further assist people following the suicide of a spouse, future research could address secondary appraisal and ways to assist survivors in understanding this process.

Hypothesis 5. The fifth hypothesis in this study examined whether there was a negative relationship between coping skill and bereavement among military spousal suicide survivors. Correlational analysis identified a weak but statistically significant negative linear relationship between coping skill and bereavement, suggesting that survivors who believe they have a low ability to cope with their spouses' death were more likely to experience bereavement.

Although it is important for survivors to become familiar with the stress appraisal process, the way they assign meaning to their spouse's death and their past experience with death are also important in their primary appraisal to the over-all coping effort. One model of this process is the transactional model of coping (Lazarus & Folkman, 1984).

This model of coping implies that a person's appraisal of his or her interaction with a difficult event naturally evokes a coping response for dealing with the situation. Experiencing a suicide or living in social environments that hinder, stigmatize, or isolate

people who have experienced a suicidal death may cause demands to exceed a person's resources for dealing with certain situations.

Few studies have examined the natural coping efforts used by suicide survivors, or have identified specific problems and needs that survivors experience following the suicide of a significant other (McMenamy et al., 2008). Interventions with suicide survivors have limited effectiveness (Jordan & McMenamy, 2004). Jordan and McMenamy (2004) make several recommendations for future research on survivors. The main recommendation was to investigate the natural course of bereavement for survivors in the community. Many questions remain about how to define a survivor and assess the number of people who are affected by a suicide. Comparison of traumatic vs. non-traumatic loss in terms of their effect on bereavement is limited. These limitations verify that more research needs to be conducted in this area (Cerel, Jordan, & Duberstein, 2006).

In a study of 227 next-of-kin survivors of completed suicide, Provini et al. (2000) presented four categories of concerns: concerns related to (a) family relationships, (b) psychiatric symptoms, (c) bereavement, and (d) stress. Family-related problems were the most frequently mentioned types of concerns. Examples of family-relationship concerns included inability to maintain parenting roles, inability to maintain family routines, existence of different coping styles within the family, and inability to provide appropriate emotional support to family members.

Qualitative comments recorded in the open-ended section of the survey support the study finding. For example, one participant stated, "I often feel distracted, forgetful, irritable, disoriented, or confused. I try to remember how I got over a death in the past,

sometimes it helps and sometimes it does not." Another participant stated, "I know I need to start to form new relationships or attachments in my life but my mind be telling me 'there must be some mistake,' or 'this can't be true.'" In regard to bereavement, one participant wrote, "Grief is perhaps the most painful companion to death." In regard to coping, one participant stated, "I must also adjust to working or returning to work after the death. I know things can't go back to the way they were before, very difficult and painful to deal with and I better adjust to life." These statements support the need to further explore the relationship between one's ability to cope with the suicide of a spouse and one's ability to experience and acknowledge feelings and move forward with everyday life activities (e.g., employment, child care, financial obligations).

Ability to cope impacts a person's bereavement process; the ways and ability to cope vary with the individual. Stigma and the amount of perceived social support have been correlated with ability to cope (Bandura, 1997). It is important to understand the individual impact that stigma, social support, primary appraisal, secondary appraisal, and coping have on bereavement. However, it is equally important to examine the relationship of these variables within the context of a model in order to establish future interventions in terms of bereavement within the context of a suicide.

Research question. A hierarchical multiple regression analysis addressed the collective relationship of five variables—primary stress appraisal, secondary stress appraisal, coping skill, perceived social support, and perceived stigma—to bereavement among women whose military spouse had completed suicide. The analysis determined the magnitude of the relationship of the dependent or criterion variable, bereavement (as measured by scores on the CBI), and five independent or predictor variables: primary

appraisal (scores on the PSAM), secondary appraisal (scores on the SSAM), coping skill (scores on the CSES), perceived social support (scores on the MSPSS), and perceived stigma (scores on the SOSASS). The criterion variable was bereavement (scores on the CBI). The control variable was time since death (TSD). In this hierarchical analysis, the entry order of the predictor variables was based on Lazarus' Cognitive Stress Theory (LCST) (Lazarus & Folkman, 1984) using the following equation: CBI = TSD + PSAM + SSAM + CSES + MSPSS + SOSASS.

In Model 1, demographic variables and the control variable were entered. Time since death accounted for a significant portion of the variance in bereavement. Zisook, Paulus, and Shuchtun (1999) support this finding, reporting that time since death affected symptoms, as well as the course of treatment. The amount of time that has passed can change the course of bereavement and where the person is within the process. As time since death increases, bereavement symptoms decrease.

In Model 2, PSAM was added because Lazarus' theory (LCST) asserts that a person first uses primary appraisal in order to express concern about harm, loss, threat, and challenge following an event. Results of the regression analysis indicated that PSAM added significantly to the prediction of bereavement when added to TSD. Burton, Farley, and Rhea (2009) support this finding, reporting that spouses who indicated that their loss (in their case, deployment) of their military spouse was stressful showed increased signs of difficulty adjusting to this particular change. Their finding suggests the significance of perceived stress, especially during the time of loss (e.g., deployment or death). This appraisal of perceived stress can only be greater following the loss of a spouse to suicide.

In the third model, SSAM was added to PSAM and TSD. Lazarus' theory (LCST) asserts that after appraising a threat, an individual uses secondary appraisal to evaluate how to overcome or prevent harm. The portion of variance in bereavement accounted for by SSAM, when added to TSD and PSAM, was also statistically significant.

Lazarus' theory suggests that coping is used after appraisal; therefore, it was added in the Model 4. Coping refers to the personal factors a person uses to help with situations that he or she appraises as stressful. Coping accounted for less than one percent of change within the model and did not contribute significantly to the prediction of bereavement. Although coping did not add predictive value to the equation, Park, Folkman and Bostron (2001) state that when people are able to employ coping strategies, they experience fewer grief symptoms.

In Model 5, MSPSS was added. The LCST conceptual framework indicates that when coping with stress, a person usually obtains social support, defined as the external and non-personal factors a person uses following a stressful event. The relationship between social support and bereavement was statistically significant. As Table 10 shows, MSPSS accounted for 20.7% of the variance in bereavement. In other words, social support greatly affected bereavement. This finding suggests that even though social support is difficult to identify and many people do not seek out social support following a suicide, social support could be a predictor of bereavement symptoms.

Model 6 added the variable of stigma, even though it was not a component of LCST, because the literature recognizes that women whose military spouses have

completed suicide often indicate feeling isolated and stigmatized. However, stigma did not contribute significantly to the model beyond those factors coming before it.

In summary, Lazarus' theory of the stress-appraisal-coping process (LCST) guided the selection of variables and the order of their entry into the equation. Results indicated that the model is statistically significant in predicting bereavement outcomes and provides considerable support for using the Lazarus model as a means of understanding the relationship between stress and bereavement when placed into the equation in a particular order: CBI = TSD + PSAM + SSAM + CSES + MSPSS + SOSASS.

This study suggests that the proposed model, using LCST and assessment of stress, identifies the constructs associated with bereavement among women whose military spouses completed suicide. Future research could further explore the assessment of primary and secondary appraisal processes, coping, stigma, and social support enhancement programs and interventions to improve the bereavement process for military spouses. When survivors can identify and address their needs, the bereavement process following a suicide can begin (Christensen & Yaffe, 2012).

Limitations

While the study supported several of the hypothesized relationships, the findings should be interpreted conservatively due to methodological limitations. First, the majority of the sample (54.1%) were non-Hispanic white, or Euro-American. Due to the fact that certain results could reflect the sample's ethnicity, it might be difficult to generalize findings to all military spouses. Future research could control for ethnicity.

Second, there is limited representation across military branches. The majority of the participants (63.4%) were from the Army. The Army is the largest branch of the

military and is currently the branch that reports the highest percentage of suicides, so it is not surprising that this group was the largest within the sample. However, in future studies, the researcher could evaluate each military branch independently in order to determine bereavement patterns distinct to each branch, as well as shared patterns.

Third, the study offered a $25 Amazon gift card. Although the practice of paying subjects to participate in research is not new, it continues to serve as a point of debate for many members of the research community. Some are concerned that the use of incentives could blind the prospective subjects to risks, inducing them to take part in a study that they would not participate in otherwise or causing them to conceal information that would disqualify them from the study (Bentley & Thanker, 2004).

Fourth, the study collected data from a self-administered electronic survey. Potential problems with this type of research could be technical problems that could reduce participants' comfort level with the software and the process and therefore decrease return the rate (Trochim, 2006). Also, during the electronic survey, the researcher could not clarify questions, so participants might have interpreted some questions inappropriately (Bernard, 2006). Furthermore, it was not possible to verify responses due to the anonymous nature of the Internet survey (Trochim, 2006). These limitations are typical for this type of research and were recognized at the beginning of the study.

Fifth, although the social support measure (i.e., Multidimensional Scale of Perceived Social Support or MSPSS) has good reliability and measures social support as a general feeling of belonging to a social network that one can turn to for advice and assistance in times of need (Uchinao, 2006), it does not delineate various types of social

support. Social support is often classified into two major categories, emotional support (e.g., talking over a problems, providing encouragement) and instrumental support (e.g., helping with child care, providing transportation). Research has shown that in terms of bereavement and social support, the quality and type of social support may be more important that the total amount of social support. Thus the study's assessment of social support in general may have limited the responses and skewed the results. In future research, the Berlin Social Support Scale (Sniehotta, Schulz, Schwarzer, 2006) or the Medical Outcome Study Social Support Survey Instrument (Stewart & Ware, 1992) might provide a more complete breakdown of various types of social support in relation to bereavement.

Sixth, the sample size was somewhat small. Research suggests that smaller samples are more likely to produce false-positive results or overestimate the magnitude of an association. While small samples can yield positive results, it is important to recognize the limitations of these smaller studies (Hackshaw, 2008).

Finally, most of the sample were women whose spouses had completed suicide while on active duty. Active duty members typically live on base and are well connected to the military community. When the military spouse dies, these supports are often no longer available, and the stigma of a suicide could strongly affect these women. By contrast, National Guard spouses are removed from the military community and experience less support. It is unclear whether this is more or less helpful in the bereavement process. Future studies could explore these differences between active duty and National Guard status.

Recommendations for Future Studies

Within this study, correlational findings showed that stigma, primary appraisal, secondary appraisal, and coping each had a statistically significant linear relationship with bereavement. The hierarchical regression Model 6 indicated that Primary Stress Appraisal (PSAM) was a strong predictor of bereavement. The following section will recommend areas for future research with regard to spousal bereavement following a military suicide and will provide suggestions for practice.

Recommendations for Research

Statistical analysis. The study findings based on correlational analysis showed that 4 of the 5 independent variables (primary appraisal, secondary appraisal, coping skill, and stigma—all but social support) were significantly correlated with bereavement. In the hierarchical regression, all the models except Model 4 had significant predictive value. In Model 6, PSAM was the only significant predictor.

The results of the hierarchical regression showed that except in Model 4, each variable entered into the model increased the explained variance. This increase in variance could be due to some interaction or interdependence between two or more of the predictors. The statistically significant correlations of bereavement with the four independent variables (primary stress appraisal, secondary stress appraisal, coping skill, and stigma) and the significant predictive value of the LCST construct primary appraisal within the hierarchical regression model both indicate that LCST constructs may be helpful in studying the bereavement of female military spouses following a suicide.

In future research, it would be important to further explore the five independent variables (primary stress appraisal, secondary stress appraisal, coping skill, social

support, and stigma). This research could be conducted by applying a principal components analysis with a Varimax rotation to develop the summated items for each measure (CBI, SAM, MSPSS, CSES, SOSASS) (Hair, et al., 1998). A principal components analysis for each of these measures would be individually conducted in order to develop a reprised version of each measure. This analysis would be appropriate to validate the construct of each measure and to further examine the value of each item in each measure (Pedhazor & Schmelk, 1999). By examining the results, the researcher could create a new instrument that would address the five variables (primary stress appraisal, secondary stress appraisal, coping skill, social support, and stigma) in relation to females who have lost a military spouse to suicide. The summated scores would represent the conceptual definition of the constructs, thus addressing any interaction/ interdependence among the variables. Improving the statistical analysis of the study would allow use of the factors in a more appropriate way in order to increase understanding of the barriers to bereavement and ways to better support this population's bereavement process.

Primary appraisal. In the correlational analysis of this dissertation, primary appraisal was significantly correlated with bereavement. In Model 6, only primary appraisal was statistically significant. The study findings present the statistically significant correlation between primary appraisal and bereavement as measured by the SAM. Researchers distinguish three components: goal relevance, goal congruence, and ego involvement. Future research can examine primary appraisal in greater depth by analyzing these three components separately.

One way this research could be collected would be to conduct a structured interview of spouses who have lost a service member to suicide. Structured interviews are commonly employed as a way of presenting exactly the same questions in the same order, thus ensuring reliable aggregation and valid comparisons among sample subgroups. This structured interview could address all three areas of primary appraisal (e.g., "Did this loss bring about change in your life?" (goal relevance), " How did this loss impact your life?" (goal congruence), and "What did this loss mean for you?" (ego involvement). Including a structured interview in a study has many advantages (Cerel et al., 2009). First, it is an excellent means of initiating dialogue and encouraging people to express themselves. Second, it allows the researcher to gain in-depth knowledge about topics, generate themes, and make a meaningful interpretation. This interpretation can often lead to identifying problems, evaluating needs, and generating social action (Hergenrather et al., 2009). By allowing participants to respond to open-ended questions, this type of research could focus explicitly on primary appraisal in relationship to bereavement and elicit information on the appraisal process.

Bereavement uniqueness. People who have lost a spouse to suicide might have higher risk for a variety of psychological complications (e.g., sleep issues, appetite, anxiety) as a result of elevated rates of complicated grief and suicide (Agerbo, 2005). Suicide survivors could have experienced additional emotions during their grieving process, as compared to survivors of non-suicidal deaths (Jordan, 2001; Sveen & Walby, 2008). These issues are important factors to address in exploring bereavement. One way a researcher could examine the issues surrounding bereavement would be to compare combat-related death to military suicide in terms of their effects on the surviving spouse,

using the variables within the LCST framework (primary appraisal, secondary appraisal, coping skill, and social support).

Recommendations for Practice

Primary appraisal. Primary stress appraisal, the process of perceiving a threat to oneself, appeared as a significant variable within Model 6. Therefore, when conceptualizing and shaping interventions concerning bereavement, counselors and clinicians should consider the impact of primary appraisal on the bereavement process and its potential for assisting individuals through times of stress. Counselors and clinicians could focus on the role of maladaptive cognitions during times of stress as well as peaceful times. The focus of the treatment would not be the death of the spouse and its aftermath, but rather the primary stress appraisal of these events (Sudak, 2009). The goals of treatment would be to recognize cognitive distortions; evaluate stress appraisals; and help to identify, record, and challenge thoughts surrounding the loss. Examining the world view of the client and offering surrounding support would also play a role in treatment (Beck, 2008).

Bereavement uniqueness. It is important to note that bereavement is an individual process. Balk (2004) asserted the value of understanding bereavement recovery in a more existential sense. His research focuses on the importance of identifying essential human sentiments and operationalizing them as measurable bereavement impacts: ‘‘If we can find means of assessing the presence, absence, and importance of the essential human sentiments in the lives of persons, we would have a powerful mechanism to infer the extent to which recovery following bereavement has occurred’’ (p. 368). This research indicates that by examining stigma, perceived social support, primary appraisal,

secondary appraisal, and coping skill, counselors can ascertain certain aspects of bereavement. In the future, when faced with a client who has experienced a loss, especially within the military community, a counselor would be wise to focus on stigma, primary appraisal, secondary appraisal, and coping skill in order to provide relief for the client.

Summary

There are several practice implications from this dissertation. The statistically significant correlations between bereavement and four other variables (primary appraisal, secondary appraisal, coping skill, and stigma), as well as the significance of the LCST construct of primary appraisal within Model 6, indicate that LCST holds promise for understanding symptoms of bereavement in females following the suicide of their military spouse.

Primary appraisal, the most significant variable within this study, could be highlighted within bereavement research on women whose military spouses have completed suicide. When conceptualizing the responses of these women, counselors and clinicians could use Lazarus' Cognitive Stress Theory, examining the three components of primary appraisal (goal relevance, goal congruence, and ego involvement) and exploring the ways these present during the client's bereavement process. The approach would focus on the role of maladaptive cognitions during times of stress (Sudak, 2009).

The reluctance of the military community to seek mental health support contributes to inability to move through the bereavement process in a healthy way. Within the military community, it can be quite difficult to deal with the ambiguity of bereavement that is typically associated with emotional vulnerability (Lamorie, 2011).

However, the current study suggests that four constructs—primary appraisal, secondary appraisal, coping, and stigma—are significant when addressing the issues of bereavement in females who have lost a military spouse to suicide. Using LCST to address cognitions, clinicians and counselors might be able to assist a population that in the past has been reluctant to seek mental health services. Because the components of LCST were correlated with bereavement, clinicians could use LCST and cognitive stress research, which together seem to be a promising direction, when assisting women who have lost a military spouse to suicide.

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APPENDIX

Figure A1.

Transactional Model of Coping (Lazarus & Folkman, 1984)

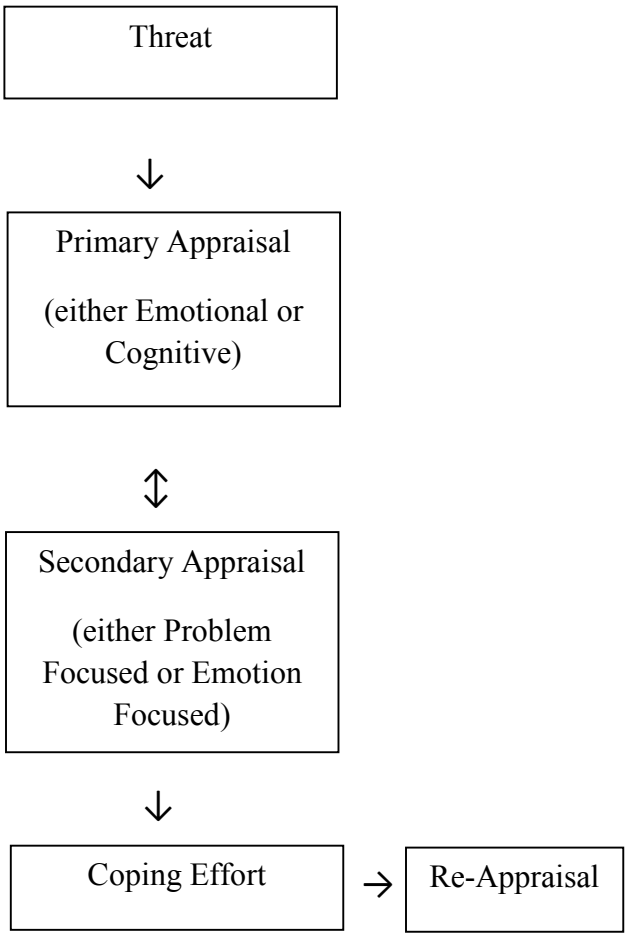
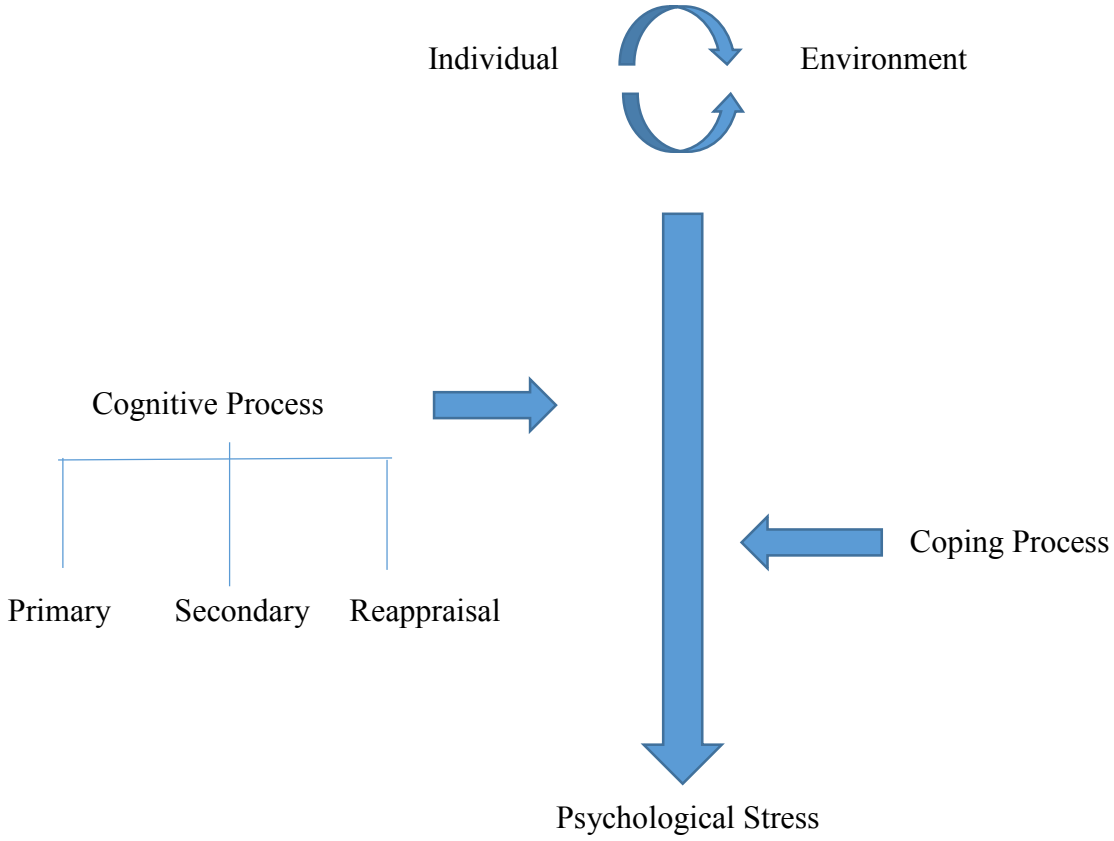


Figure A2.

Lazarus' Cognitive Stress Theory (Lazarus & Folkman, 1984)



You are invited to participate in a research study under the direction of Dr. Kenneth Hergenrather of the Department of Graduate School of Education and Human Development, George Washington University (GWU). Taking part in this research is entirely voluntary.

The purpose of this study is to assess the grief experience of military spouses whose significant other has taken one's own life. If you choose to take part in this study, you will be asked to complete a 6 section question survey related to your grief experience since the time of your loss. The survey will take you approximately 20 minutes to complete.

If you wish to receive a $25 electronic Amazon gift card as a "thank you" for participating in the survey please enter your email address when asked. The gift card will be emailed to you following the completion of the survey. If you do not wish to receive the gift card, feel free to omit your email address.

You may experience emotional discomfort when you are completing questions related to your bereavement experience. You are asked to only share what you feel comfortable with and may stop at any time. There are no direct benefits for participating in this research.

Findings will contribute to understanding the bereavement process following the loss of a military spouse to suicide. Results of this study are expected to begin the examination of the bereavement process and begin to explore ways to support spouses following suicide.This study is for the researcher's doctoral dissertation.

Every effort will be made to keep your information confidential, this cannot be guaranteed. You will not be asked to provide any personal identifying information and can choose what demographic information you wish to provide. If results of this research study are reported in journals or at scientific

meetings, the people who participated in this study will not be named of identified.

The Office of Human Research of George Washington University, at telephone number

(202) 994-2715, can provide further information about your rights as a research participant. Use the following suicide hotlines (1800-784-2433 or 1800-273-8255) to obtain assistance with issues of suicide that you might be facing. If you or someone you know is in immediate danger, call emergency services by dialing 911.

Please click the following link for more information regarding suicidal ideation. http://www.goodtherapy.org/therapy-for-suicide.htm

Section I – Demographical Information

Participant Date of Birth:_____

Participant Gender: _____

Participant Education Level:_____

Affiliated Military Branch:_____

Deceased Military Title:_____

Time Since Death:_____

Education Level of the Deceased_____

Relationship Status with the Deceased at time of death:_____

Number of Children:_____

Prior suicide attempts:_____

Section II – Multidimensional Scale of Perceived Social Support Scale

Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you Very Strongly Disagree, "2" if you Strongly Disagree, "3" if you Mildly Disagree, "4" if you are Neutral, "5" if you Mildly Agree, "6" if you Strongly Agree and "7" if you Very Strongly Agree.

1) There is a special person who is around when I am in need.

2) There is a special person with whom I can share my joys and sorrows.

3) My family really tried to help me.

4) I get the emotional help and support I need from my family.

5) I have a special person who is a real source of comfort to me.

6) My friends really try to help me.

7) I can count on my friends when things go wrong.

8) I can talk about my problems with my family.

9) I have friends with whom I can share my joys and sorrows.

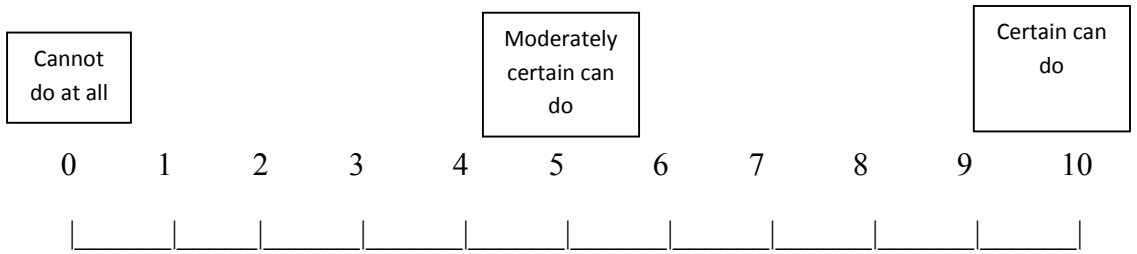
10) There is a special person in my life who cares about my feelings.

11) My family is willing to help me make decisions.

12) I can talk about my problems with my friend

Section III – Coping Self Efficacy Scale

For each of the following items, write a number from 0 – 10, using the following scale:



When things are not going well for you, or when you are having problems, how confident or certain are you that you can do the following:

1) Keep from getting down in the dumps.

2) Talk positively to yourself.

3) Sort out what can be changed and what cannot be changed.

4) Get emotional support from family and friends.

5) Find solutions to your most difficult problems.

6) Break an upsetting problem into smaller parts.

7) Leave options open when things get stressful.

8) Make a plan of action and follow it when confronted with a problem.

9) Develop new hobbies or recreations.

10) Take your mind off unpleasant thoughts.

11) Look for something good in a negative situation.

12) Keep from feeling sad.

13) See things from the other person's point of view during a heated argument.

14) Try other solutions to your problems if your first solutions do not work.

15) Stop yourself from being upset by unpleasant thoughts.

16) Make new friends.

17) Get friends to help you with things you need.

18) Do something positive for yourself when you are feeling discouraged.

19) Make unpleasant thoughts go away.

20) Think about one part of a problem at a time.

21) Visualize a pleasant activity or place.

22) Keep yourself from feeling lonely.

23) Pray or meditate.

24) Get emotional support from community organizations or resources.

25) Stand your ground and fight for what you want.

26) Resist the impulse to act hastily when under pressure.

Section IV – Stress Appraisal Measure

This section will deal with how you think and feel about the stressful events that you encounter. So, for the purpose of this questionnaire, please tell us how you generally think and feel when you encounter stressful events. With this in mind, read each statement below and then circle the appropriate answer on the scale provided for you. Use the following scale to indicate how well each statement describes how you think and feel.

0= not at all
1= a little bit
2= about half the time
3= the majority of the time
4= a great amount

Now please respond to the statements below.

1.	I have the ability to overcome stress.	0	1	2	3	4
2.	I perceive stress as threatening.	0	1	2	3	4
3.	I feel totally helpless.	0	1	2	3	4
4.	There is someone I can turn to for help.	0	1	2	3	4
5.	I can positively attack stressors.	0	1	2	3	4
6.	I have what it takes to beat stress.	0	1	2	3	4
7.	I feel anxious.	0	1	2	3	4
8.	Stressful events impact me greatly.	0	1	2	3	4
9.	It is beyond my control.	0	1	2	3	4
10.	There is help available to me.	0	1	2	3	4
11.	I am eager to tackle problems.	0	1	2	3	4
12.	The outcome of stressful events is negative.	0	1	2	3	4
13.	The event has serious implications for my life.	0	1	2	3	4
14.	No one has the power to overcome stress.	0	1	2	3	4
15.	I feel I can become stronger after experiencing stress.					
16.	I have the skills necessary to overcome stress.	0	1	2	3	4
17.	Stress has a negative impact on me.	0	1	2	3	4
18.	There are long-term consequences as a result of stress.					
19.	I am excited about the potential outcome.	0	1	2	3	4

Section V – Stigma of Suicide and Suicide Survivor Scale

This section examines how people differ in their attitudes to this behaviour. There are no right or wrong answers. These statements may not reflect how you feel about relatives or friends of a person who committed suicide, but

how you believe others feel. You will probably disagree with some items and agree with others. **This section is interested in your views about other people feel.**
First impressions are usually best in such matters. So after each statement,
circle whether you **strongly agree (1), agree (2), disagree (3), or strongly disagree (4).**

1. Most people would willingly accept a relative or a friend of a person who committed suicide as a close friend.

Strongly Disagree 1 2 3 4 Strongly Agree

2.a. Most people believe that a person who committed suicide was just intelligent as the average person.

Strongly Disagree 1 2 3 4 Strongly Agree

2.b. Most people believe that a relative or a friend of a person who committed suicide is just intelligent as the average person.

Strongly Disagree 1 2 3 4 Strongly Agree

3.a. Most people believe that a person who committed suicide was just trustworthy as the average person.

Strongly Disagree 1 2 3 4 Strongly Agree

3.b. Most people believe that a relative or a friend of a person who committed suicide is just trustworthy as the average person.

Strongly Disagree 1 2 3 4 Strongly Agree

4. Most people would accept a relative or a friend of a person who committed suicide as a teacher of young children in a public school.

Strongly Disagree 1 2 3 4 Strongly Agree

5. Most people feel that suicide is a sign of personal failure.

Strongly Disagree 1 2 3 4 Strongly Agree

6. Most people would not hire a relative or a friend of a person who committed suicide to take care of their children, even if he/she is healthy.

Strongly Disagree 1 2 3 4 Strongly Agree

7.a. Most people think less of a person who committed suicide.

Strongly Disagree 1 2 3 4 Strongly Agree

7.b. Most people think less of a relative or a friend of a person who committed suicide.

Strongly Disagree 1 2 3 4 Strongly Agree

8. Most employers will hire a relative or a friend of a person who committed suicide if he or she is qualified for the job.

Strongly Disagree 1 2 3 4 Strongly Agree

9. Most employers will pass over the application of a relative or a friend of a person who committed suicide in favour of another applicant.

Strongly Disagree 1 2 3 4 Strongly Agree

10. Most people in my community would treat a relative or a friend of a person who committed suicide just as they would treat anyone.

Strongly Disagree 1 2 3 4 Strongly Agree

11. Most women/men would be reluctant to date a relative or a friend of a person who committed suicide.

Strongly Disagree 1 2 3 4 Strongly Agree

12. Once they know a person is a relative or a friend of a person who committed suicide, most people will take his/her opinion less seriously.

Strongly Disagree 1 2 3 4 Strongly Agree

13.a. Most people think that a person who committed suicide had a mental disease.

Strongly Disagree 1 2 3 4 Strongly Agree

13.b. Most people think that a relative or a friend of a person who committed suicide has a mental disease.

Strongly Disagree 1 2 3 4 Strongly Agree

Section VI – Core Bereavement Items

These questions are about your experience in relation to the recent loss of your loved one, whose name in these questions will be signified by the symbol X.

1) Do you experience images of the events surrounding X's death?

   Continuously Quite a bit of the time A little bit of the time Never

2) Do thoughts of X come into your mind whether you wish it or not?

   Continuously Quite a bit of the time A little bit of the time Never

3) Do thoughts of X make you feel distressed?

Continuously Quite a bit of the time A little bit of the time Never

4) Do you think about X?

Continuously Quite a bit of the time A little bit of the time Never

5) Do images of X make you feel distressed?

Continuously Quite a bit of the time A little bit of the time Never

6) Do you find yourself preoccupied with images or memories of X?

Continuously Quite a bit of the time A little bit of the time Never

7) Do you find yourself thinking of a reunion with X?

Continuously Quite a bit of the time A little bit of the time Never

8) Do you find yourself missing X?

Continuously Quite a bit of the time A little bit of the time Never

9) Are you reminded by familiar objects (photos, possessions, rooms etc) of X?

Continuously Quite a bit of the time A little bit of the time Never

10) Do you find yourself pining for / yearning for X?

Continuously Quite a bit of the time A little bit of the time Never

11) Do you find yourself looking for X in familiar places?

Continuously Quite a bit of the time A little bit of the time Never

12) Do you feel distress/pain if for any reason you are confronted with the reality X is not coming back?

Continuously Quite a bit of the time A little bit of the time Never

13) Do reminders of X such as photos, situations, music, places

etc cause you to feel longing for X?

Continuously Quite a bit of the time A little bit of the time Never

14) Do reminders of X such as photos, situations, music, places etc cause you to feel loneliness?

Continuously Quite a bit of the time A little bit of the time Never

15) Do reminders of X such as photos, situations, music, places etc cause you to cry about X?

Continuously Quite a bit of the time A little bit of the time Never

16) Do reminders of X such as photos, situations, music, places etc cause you to feel sadness?

Continuously Quite a bit of the time A little bit of the time Never

17) Do reminders of X such as photos, situations, music, places etc cause you to feel loss of enjoyment?

Continuously Quite a bit of the time A little bit of the time Never

Open Ended Questions:

What do you recall about how you responded to the death of your spouse at the time?

What was the most painful part of the experience for you?

How has this experience affected your view of yourself or your world?

Your participation is greatly appreciated!