POSITIVE AND NEGATIVE PSYCHOLOGICAL SEQUELAE OF
BEREAVEMENT BY SUICIDE

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POSITIVE AND NEGATIVE PSYCHOLOGICAL SEQUELAE OF
BEREAVEMENT BY SUICIDE

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Dissertation

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ABSTRACT

Research exploring the experiences of bereavement by suicide is relatively new. Until very recently, research has been mostly qualitative in nature and has focused primarily on the negative outcomes of those bereaved by suicide (Jobes, Luoma, Hustead, & Mann, 2000). The present study explored the experience of individuals bereaved by the loss of a loved one to suicide by framing the experience with Tedeschi and Calhoun’s (1995) theory of Posttraumatic Growth, which fully acknowledges both distress and growth as results of trauma. Utilizing an online data collection method, 325 participants completed measures of posttraumatic growth, depression, impact of event, changes in outlook, and emotional closeness. Results indicate that persons bereaved by suicide do report growth following the trauma of loss of a loved one to suicide. However, the experience of posttraumatic growth may not follow the theorized pattern that Tedeschi and Calhoun have offered. Specifically, results do not support that the experience of posttraumatic growth is related to the length of time since the loss occurred ($r = .047, p = .39$). However, the current research does support the prediction that distress is negatively related to time since bereavement ($r = -.25, p < .01$). Potential explanations for these unexpected results are considered for each hypothesis. Implications for both research and practice are also discussed.
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### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xi</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>I.  INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Themes in Research</td>
<td>2</td>
</tr>
<tr>
<td>Grief</td>
<td>2</td>
</tr>
<tr>
<td>Mental Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>Physical Health</td>
<td>5</td>
</tr>
<tr>
<td>Social Stigma</td>
<td>5</td>
</tr>
<tr>
<td>Meaning Making and Growth</td>
<td>6</td>
</tr>
<tr>
<td>Posttraumatic Growth</td>
<td>7</td>
</tr>
<tr>
<td>Summary</td>
<td>9</td>
</tr>
<tr>
<td>II. REVIEW OF THE LITERATURE</td>
<td>11</td>
</tr>
<tr>
<td>History of Posttraumatic Growth</td>
<td>11</td>
</tr>
<tr>
<td>The Theory of Posttraumatic Growth</td>
<td>13</td>
</tr>
<tr>
<td>Potential Growth Domains</td>
<td>14</td>
</tr>
<tr>
<td>Negative Impact of Traumatic Experiences</td>
<td>20</td>
</tr>
<tr>
<td>Posttraumatic Growth in the Literature</td>
<td>22</td>
</tr>
</tbody>
</table>
Trauma in General ...........................................................................................................23
Specific Trauma ..............................................................................................................26
Bereavement by Suicide as Trauma ................................................................................35
Negative Sequelae of Surviving Suicide ........................................................................36
Grief ..................................................................................................................................36
Mental Health Issues .........................................................................................................41
Physical Health Issues ......................................................................................................60
Social Stigma and Support ...............................................................................................63
Suicide Bereavement and the Possibility for Posttraumatic Growth .......................76
Summary and Hypotheses ...............................................................................................83

III. METHODOLOGY ......................................................................................................86
Procedures .....................................................................................................................86
Participants ...................................................................................................................87
Measures ......................................................................................................................88
Hypotheses and Data Analysis .....................................................................................97

IV. RESULTS .................................................................................................................101
Introduction ..................................................................................................................101
Participant Demographics ..........................................................................................101
Preliminary Analysis .....................................................................................................104
Hypothesis 1 .................................................................................................................105
Hypothesis 2 .................................................................................................................106
Hypothesis 3 .................................................................................................................110
Hypothesis 4 .................................................................................................................111
APPENDIX H. IMPACT OF EVENT SCALE ...................................................164

APPENDIX I. INSTITUTIONAL REVIEW BOARD APPROVAL .....................165
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Country of Participants ($N = 325$)</td>
<td>102</td>
</tr>
<tr>
<td>2. Demographic Information ($N = 325$)</td>
<td>103</td>
</tr>
<tr>
<td>3. Mean, Range, Standard Deviation, and Cronbach’s Alpha for Study Measures</td>
<td>105</td>
</tr>
<tr>
<td>4. Correlation Coefficients for All Measures and PTGI Subscales</td>
<td>107</td>
</tr>
<tr>
<td>5. Standardized Means, Standard Deviations, and t-Values of PTGI Scales</td>
<td>112</td>
</tr>
<tr>
<td>6. Correlations Between Time Since Loss and Distress Variables</td>
<td>113</td>
</tr>
<tr>
<td>7. MANOVA Contrast Results for the Main Effect of Support Group</td>
<td>115</td>
</tr>
<tr>
<td>8. Goodness of Fit Indices for the Five Factor Model of PTG</td>
<td>117</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Posttraumatic growth domains</td>
<td>15</td>
</tr>
<tr>
<td>2. Regression curve estimation plotting Center for Epidemiological Studies Depression Scale--Revised total score against Posttraumatic Growth Inventory total score</td>
<td>108</td>
</tr>
<tr>
<td>3. Regression curve estimation plotting Changes in Outlook Questionnaire Negative Scale total score against Posttraumatic Growth Inventory total score</td>
<td>109</td>
</tr>
<tr>
<td>4. Regression curve estimation plotting Impact of Event Scale total score against Posttraumatic Growth Inventory total score</td>
<td>110</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

According to Edwin Shneidman (1996):

“…in the case of suicide the largest public health problem is neither the prevention of suicide, nor the management of attempts, but the alleviation of the effects of stress in the survivor-victims of suicidal deaths, whose lives are changed forever…” (p. 4)

Estimates of the number of those bereaved by suicide, defined as those individuals who have lost a loved one to death by suicide (Cain, 1972), are based on a 6:1 ratio somewhat arbitrarily offered by Shneidman (1969). Although a number of authors have suggested that this ratio is extremely conservative (Clark, 2001; Mitchell, Kim, Prigerson, & Mortimer, 2004; Mitchell, Sakraida, Kim, Bullian, & Chiappetta, 2009), it remains the estimate most commonly referred to in the literature. Using this ratio, and based on the reported 33,300 suicides in the United States in 2006, McIntosh (2009) suggested that almost 200,000 people in the United States could be classified as bereaved by suicide in that year. Moreover, the estimated 766,042 suicides in the United States between 1982 and 2006 would suggest that these deaths translate into 4.6 million bereaved by suicide, or one person bereaved by suicide in every 65 Americans (McIntosh, 2009).
Investigations into the effects of losing a loved one to suicide have been primarily qualitative in nature, although quantitative studies have more recently been reported. According to Jobes, Luoma, Hustead, and Mann (2000), much of the early work in this area was conceptual and anecdotal; however, some general themes related to the negative impact of suicide survivorship have emerged and will be introduced in the next section in order to set the context for the current study.

Themes in Research

Quantitative investigations into the experiences of those bereaved by suicide have focused primarily on the negative impact of suicide bereavement and have identified several major consequences, including grief, mental health issues, poor physical health, and the social stigma that is prevalent in the experience of bereavement by suicide (Cvinar, 2005; De Groot, De Keijser, & Neelman, 2006a; Myers & Fine, 2006; Ratnarajah & Schofield, 2007; Saarinen, Viinamäki, Hintikka, Lehtonen, & Lönqvist, 1999). Each of these emerging areas will be discussed individually in order to provide a foundation for the purpose of the current study.

Grief

Although grief is a natural experience that often follows loss (Kubler-Ross, 1969; Osterweis, Solomon, & Green, 1984), the literature suggests that individuals who lose a loved one to suicide often experience a more difficult grieving process than someone who is grieving a different type of loss. Research supported this concept via investigations comparing the experiences of suicide survivors and survivors of other types of death.
Such explorations indicated that participants who lost loved ones to suicide experienced feelings of rejection by the deceased and experienced significantly higher levels of overall grief than did those who lost their loved one to another type of death (Bailey, Kral, & Dunham, 1999). Research has also suggested that persons bereaved by suicide are at increased risk for complicated grief, a maladaptive and unhealthy form of grief, which increases as the kinship between the survivor and the individual who died by suicide becomes closer (Mitchell, Sakraida, Kim, Bullian, & Chiappetta, 2009). The intensified experience of grief and complicated grief increases the likelihood of mental health issues, likely by lowering the ability of the suicide survivor to cope with negative emotions and stressors (Mitchell et al., 2009).

**Mental Health Issues**

Research indicates that persons bereaved by suicide often experience symptoms of mental health disorders following the loss of a loved one to suicide (Mitchell et al., 2009). For example, persons bereaved by suicide are at an increased risk for depression (Brent, Perper, Mortiz, Liotus, Schweers, Roth, Balach, & Allman, 1993; Mitchell et al, 2009; Saarinen, Viinamäki, Hintikka, Lehtonen, Lönnqvist, 1999). Inquiries have indicated that persons bereaved by suicide do indeed have an increased risk for Major Depressive Disorder, which in some studies has been present in approximately half of participants (Sethi & Bhargava 2003) compared with a 17% lifetime prevalence rate in the United States (Kessler, Berglund, & Demler, 2003). Research also suggests that persons bereaved by suicide may have an increased risk of Bipolar Disorder (Kuramoto, Brent, & Wilcox, 2009; Tsuchiya, Agerbo, & Mortenson, 2005) even when controlling for
genetic predisposition to the disorder. Moreover, and arguably most concerning, empirical research has identified that persons bereaved by suicide experience a greater risk of suicidal ideation and suicidal behavior when compared to the general population (McMenamy, Jordan, & Mitchell, 2008; Mitchell, Kim, Prigerson, & Mortimer, 2005; Murphy, Tapper, Johnson, & Lohan, 2003b; & Tsuchiya, Agerbo, & Mortenson, 2005). The reported increase in mood disorders and mood disorder symptoms (i.e. suicidal ideation) supports the notion that survivors of suicide may face unique challenges following their loss.

Persons bereaved by suicide are more vulnerable to symptoms of other mental illnesses, including those related to anxiety disorders such as Posttraumatic Stress Disorder (PTSD) and generalized anxiety disorders. Investigations have indicated that persons bereaved by suicide are at increased risk of Posttraumatic Stress Disorder (PTSD; Kuramoto, Brent, & Wilcox, 2009; Mitchell et al., 2009), particularly if they discovered the body of their loved one following suicide (Sethi & Bhargava, 2003). Moreover, research indicates that persons bereaved by suicide may experience PTSD symptoms at an increased intensity for the first year following the death of their loved one by suicide (Murphy, Johnson, Wu, Fan, & Lohan, 2002) and that persons bereaved by suicide can experience a decrease in ability to cope with stress up to ten years following the suicide (Saarinen et al., 2002).

Similar to the pattern in PTSD symptoms, persons bereaved by suicide may experience an increased rate of general anxiety symptoms. Investigations comparing those surviving suicides versus other types of deaths indicate an increase in overall anxiety symptoms (Cerel, Fristad, Weller, & Weller, 1999; Pfeffer et al., 1997). For
children in particular, these anxiety-related symptoms are often long-lasting (Kuramoto, Brent, & Wilcox, 2009; Shepherd & Barraclough, 1976). The impact of losing a loved one to suicide, however, is not limited to psychological difficulties, but can also include physical health issues.

**Physical Health**

Physical health may also be negatively impacted by the loss of a loved one to suicide. Researchers report symptoms such as increased smoking, drinking, sleeping difficulties, changes in appetite, sexual difficulties, and health problems such as the flu and diagnoses of new and worsening physical illnesses (Calhoun, Selby, & Selby, 1982). Similarly, others have suggested that suicide survivors experience increased somatic concerns following the loss of a loved one to suicide (Saarinen et al., 1999; Rudestam, 1977). Children in particular may experience disturbed sleep (Shepherd & Barraclough, 1976). Taken together, research in this area supports the notion that the impact of losing a loved one to suicide may stretch beyond emotional distress.

**Social Stigma**

Research related to social stigma suggests that losing a loved one to suicide is particularly stigmatizing and survivors may experience social isolation as a result of their loved one’s suicide (Calhoun et al., 1982). For example, Calhoun et al. hypothesized that this social isolation may be due to the frequent experiences of survivors of feeling embarrassed and ashamed of their loved one’s suicide. More current research indicates that this sense of stigmatization may be due at least in part to the suicide survivor’s
feeling that others cannot understand the struggle they experience (Wagner & Calhoun, 1991). Although quantitative research tends to provide support for the negative sequelae that suicide survivors experience, some recent qualitative literature has found that the experience of persons bereaved by suicide also includes a common search for meaning following the loss of a loved one.

**Meaning Making and Growth**

There is limited research indicating that persons bereaved by suicide may struggle to reconstruct meaning in their lives following the suicide. More specifically, theory and research in this area has often focused on the potential for psychological growth following the survivor experience. For example, Ratnarajah and Schofield (2007) have suggested that meaning making is an important part of a child’s healing from a parent’s suicide. They argued that this meaning making is not solely about making sense of their loss of a parent, but also about “themselves and their place in the world” (p. 88). This idea is echoed throughout research into the experiences of persons bereaved by suicide (Dunn & Morrish-Vidners, 1987; Rudestam, 1977). Begley and Quayle (2007) have supported this notion by concluding that persons bereaved by suicide in their study often spent time searching for reasons for why the suicide happened, questioning the prior relationship with the deceased, and feeling guilt and shame. Additionally, people bereaved by suicide reported reviewing the character of the deceased to look for flaws that may have caused them to kill themselves, looking for stressors for the deceased, trying to uncover the motive for suicide, and reviewing the act of suicide so as to
understand the reasons their loved one died by suicide. This sense of meaning making was a major theme that emerged from their qualitative exploration.

Similarly, Calhoun, Selby, and Selby (1982) reported in their review of the literature that the suicidal death of a family member impacted the family as a whole and tended to actually improve marriages and communication. Additionally, several studies (Rudestam, 1977; Shepherd & Barraclough, 1976) indicated that families felt closer and valued each other more following the suicide. These authors reported that married couples had fewer arguments and were better able to discuss negative feelings with one another. Thus, although not typical of research on persons bereaved by suicide, these studies suggest the possibility that positive outcomes can occur following the loss of a loved one by suicide. As such, attention to another growing area of research, that of Posttraumatic Growth (Calhoun & Tedeschi, 2001) may inform the current literature on suicide survivors. To extend this growing area of study to the suicide literature, the work of Calhoun and Tedeschi will be used to provide a theoretical foundation for the current study.

Posttraumatic Growth

Posttraumatic Growth (PTG) is defined as “gains that can result from the struggle with loss” (Calhoun & Tedeschi, 2001, p. 158). In their 2001 book chapter, Calhoun and Tedeschi described PTG as falling into three broad areas, including a changed sense of self, changed relationships, and a changed philosophy of life. In terms of the experience of a changed sense of self, Calhoun and Tedeschi suggested that individuals may feel that they are stronger and more capable of handing life’s challenges as a result of this
struggle. Persons experiencing PTG also may experience an increased sense that life is precious and fragile, leading them to value each day more intensely. With regard to individuals experiencing changed relationships, Calhoun and Tedeschi reported that survivors of trauma often experience an increased connectedness with others and increased empathy for the pain of others. Finally, individuals who experience PTG may also experience existential and spiritual growth. This experience can look very different for each individual coping with a loss, but can often require persons to re-think their major life assumptions and reconstruct their sense of meaning in the world. Again, this experience in and of itself is difficult and can be painful, but can lead to a fruitful experience of increased spirituality or religiosity.

Researchers exploring PTG have identified positive growth in individuals who had experienced trauma of various types. Solomon and Dekel (2007) for example, explored the experiences of Israeli Prisoners of War (POWs) as compared to non-POW controls. These authors found that even with increased symptoms of Posttraumatic Stress Disorder, ex-POWs reported significantly higher levels of overall PTG. Further, their results indicated that individuals who had intermediate levels of PTSD symptoms experienced higher levels of growth than those with either higher or lower levels of PTSD symptoms. Similarly, Powell, Ekin-Wood, and Collin (2007) explored the experiences of individuals with traumatic brain injuries. Their results suggested that individuals for whom more time had elapsed since their trauma experienced positive growth in (a) ability to relate to others, (b) their belief in new possibilities in their life, (c) personal strength, and (d) spirituality as compared with individuals for who less time had
passed since their injury. These examples suggest that growth can occur following a wide variety of traumatic events.

The above description of PTG as an experience of gaining positive growth from surviving a traumatic event lends itself easily to the description of an individual bereaved by the suicide of a loved one. It is highly probable that exploration of the experience of persons bereaved by suicide might result in a clearer picture if it is viewed from the Posttraumatic Growth framework.

**Summary**

When examining the current research on persons bereaved by suicide, a few particular areas of research have emerged as a focus. One is exploring the experience of persons bereaved by suicide as grief or complicated grief (Brooks-Harris, 2001; Mitchell, Kim, Prigerson, & Mortimer, 2005; Mitchell, Kim, Prigerson, Mortimer-Stephens, 2004). Another area is the experience of persons bereaved by suicide related to subsequent changes or perceived changes in social support (Calhoun, Selby, & Abernathy, 1984; Cvinar, 2005; Saarinen, Hintikka, Lehtonen, Lönnqvist, & Viinamaki, 2002; Wagner & Calhoun, 1991). The third area involves particular mental health issues, such as depression (Myers & Fine, 2006; Ratnarajah & Schofield, 2007) and Posttraumatic Stress Disorder symptoms (Mitchell, Kim, Prigerson, & Mortimer-Stephens, 2004).

Overall, the quantitative research exploring the experience of persons bereaved by suicide has focused overwhelmingly on the negative impact that the suicide of a loved one has on an individual’s life. This predominantly negative focus may not provide the most complete picture of the experience of persons bereaved by suicide. In addition,
quantitative research in this area tends to lack a strong theoretical background, the inclusion of which may provide a more structured approach for evaluating the experience of persons bereaved by suicide. However, some qualitative research has begun to examine the experience of persons bereaved by suicide from a constructivist perspective, exploring the challenge that survivors face in attempting to make sense of their world following this event. Finally, research involving persons bereaved by suicide frequently suffers from small sample sizes, limiting the generalizability of the conclusions of the existing research.

The purpose of this study is to expand the literature in the area of persons bereaved by suicide. This will be accomplished in three ways. First, this study will explore the experience of persons bereaved by suicide grounded in the theory of Posttraumatic Growth, providing a conceptual framework from which to explore bereavement by suicide. Second, this study will examine more comprehensively the impact of suicide on those who are bereaved by suicide by including both negative and positive elements of the experiences of suicide survivors. Third, this study of persons bereaved by suicide will utilize a larger sample size to improve the statistical power and generalizability of the study. The overall research question is what are the positive and negative sequelae experienced by persons bereaved by suicide and how are the sequelae related to both time since the suicide loss and the emotional closeness to the individual lost by suicide.
CHAPTER II
REVIEW OF THE LITERATURE

Traumatic experiences occur on a daily basis to individuals in the world. These traumatic experiences intuitively cause negative reactions within individuals who find themselves struggling with the aftermath of trauma. The goal of this chapter is to review the history of posttraumatic growth, review the theory of posttraumatic growth, including both potential domains for growth and the negative impact of trauma, and review the extant literature in this area. Then, the experience of persons bereaved by suicide, or those who have lost loved ones to suicide, will be described in terms of a traumatic event. The research describing the effects of this traumatic event, both negative and positive, on the persons bereaved by suicide will be reviewed, and the hypotheses of the current study will be described.

History of Posttraumatic Growth

The notion that individuals can experience life struggles that ultimately lead to change, sometimes even positive change, has not been “discovered” by psychologists or researchers (Calhoun & Tedeschi, 2006). Early religious writings and philosophies explored this idea, with the origins of Buddhism said to be based in the efforts of a prince, Siddhartha Gautama, to make sense of the meaning of suffering and mortality.
The same theme is also found in Christianity, with the suffering of Jesus found to be integral to the goal of salvation for humanity. Calhoun and Tedeschi (2006) also suggested that similar ideas are at the core of other religions, including Islam and Hinduism.

These ideas also flow through philosophy and are common among novels, plays, and poetry (Tedeschi & Calhoun, 1995). Philosophers such as Neitzche (1955) and Kierkegaard (1983) discussed the benefits people can experience through suffering difficult or challenging events. Scientists and clinicians in the 20th century began to explore the ways in which life crises provided opportunities for individual growth (Frankl, 1963; Yalom, 1980). Beginning in the mid-to-late 20th century, writings focusing on positive growth reaped from encounters with negative events began to appear in the literature. One of the best-known examples of this is the work of Victor Frankl. Frankl (1961) grew from his own experiences in the concentration camps during World War II and developed his own theoretical approach toward counseling. This therapy, called logotherapy, explores how one can employ experiences with trauma to discover and create meaning in life. Similarly, Caplan (1964) identified the possible benefits that one may experience after his or her struggle with suffering. Not until the 1980s and 1990s, however, did the scholarly research in this area begin to grow significantly.

In short, the consideration of posttraumatic growth has been documented since the early days of history. Beginning in early religious writings and echoed throughout literature and philosophy, the greatest minds of history have all suggested that persons may experience positive effects from negative and traumatic events in their lives.
Tedeschi and Calhoun’s (2004) conceptualization of Posttraumatic Growth provides a theoretical explanation of this process.

The Theory of Posttraumatic Growth

Tedeschi and Calhoun (2004) suggested that Posttraumatic Growth, or PTG, “refers to the positive psychological change experienced as a result of the struggle with highly challenging life circumstances” (p. 1). Their theory of Posttraumatic growth provides a picture of the process of turning negative events into positive outcomes. The theory of posttraumatic growth is based on both the empirical and clinical work of its creators (Tedeschi & Calhoun, 2004). The process of posttraumatic growth begins with an event or crisis that challenges an individual’s understanding of the world and/or his or her place within it. Individual qualities of that person, such as extraversion, openness to experience, and optimism, may influence the likelihood of that individual experiencing growth.

According to the model, the individual has initial coping responses to the traumatic event to manage overwhelming emotions that come with a challenge to one’s worldview. Tedeschi and Calhoun (1995) suggested that a central element of whether one experiences posttraumatic growth is how engaged he or she is cognitively by the traumatic event. This cognitive engagement includes thoughts about the event and how impactful the event is in terms of challenging the individual’s worldview. The authors also suggested that individual interactions with one’s social system may also play a role. For instance, one who has been met with a traumatic event may find others within his or her support system who provide new cognitive schemas related to growth, offering new
explanations or assumptions to understand the trauma better. In addition, family or friends may provide social support in the form of providing a venue for the traumatized individual to share his or her experience. Posttraumatic growth, according to Tedeschi and Calhoun, appears to be closely connected to the ability to develop general wisdom about life and the development and modification of an individual’s narrative of life. According to these authors, however, these positive outcomes do not happen immediately following a traumatic event, but rather develop over time; the longer an individual struggles to make sense of a traumatic event in his or her life, the more likely posttraumatic growth is to occur. Although research into posttraumatic growth is relatively new, several different areas of potential growth have been identified as resulting from a variety of traumatic events.

*Potential Growth Domains*

Posttraumatic growth is theorized to occur in three broad categories: perceived changes in self, a changed sense of relationship with others, and a changed philosophy of life (Tedeschi & Calhoun, 1995). These broad categories can be separated into five domains (See Figure 1) that are supported by research: Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation for Life. Each of these are described below.
Perceived changes in self. One area of benefit identified by research is perceived changes within the self. Janoff-Bulman (1992) reported that “in the immediate aftermath of traumatic events, victims experience the terror of their own vulnerability” (p. 61). This sense of vulnerability can lead to a profound sense of intense danger, but can also lead as an end result to an increased awareness of vulnerability and strength. According to Janoff-Bulman, persons facing psychological suffering are able to, over time, consider their experience in terms of the lessons they learned from the trauma. For some individuals, this can involve a newfound appreciation of oneself. Janoff-Bulman also suggested that trauma can lead an individual to an increased level of self-awareness, making individuals more aware of their abilities. Similarly, according to Affleck, Allen, Tennen, McGrade, and Ratzan (1985) and Affleck, Tennen, and Gershman (1985), study participants often describe their experience of change of self as “emotional growth.” Other individuals surviving traumas have described positive changes from their pain, including feeling more experienced about life (Joseph, Williams, & Yule, 1993) or feeling...
stronger and more self-assured (Collins, Taylor, & Skokan, 1990), and with an increased self-reliance (Tedeschi & Calhoun, 1988). Two areas identified in research as primary areas of those perceived changes in self include personal strength and new possibilities.

**Personal strength.** Calhoun and Tedeschi (2006) summarized this area of growth with the statement “I am more vulnerable than I thought, but much stronger than I ever imagined” (p. 5). Researchers have deemed this area “emotional growth” and participants have reported significant improvement in themselves as people (Tedeschi & Calhoun, 1995, p. 30). For example, in a study of cancer survivors, 83% of respondents reported feeling stronger and more self-assured. Calhoun and Tedeschi (2006) have theorized that traumatic events threaten individuals’ assumptive beliefs, making them feel that the world is more dangerous and unpredictable than before. These feelings in turn lead to a sense of increased vulnerability. However, this sense of vulnerability can also lead to improved self-reliance, and stronger feelings of competence (Calhoun & Tedeschi, 1995). Janoff-Bulman reported that individuals often report that they feel they are stronger following surviving a trauma, including increased ability to handle stressors and distressing emotions and valuing life more. However, the experience of surviving trauma can also lead to changes in what individuals envision as possibilities for their own future.

**New possibilities.** As suggested, struggling with a traumatic event also may lead to growth in the area of new possibilities in an individual’s life (Calhoun & Tedeschi, 2006). These possibilities can include new hobbies, interests, activities, and embarking on new paths. For instance, an individual who has lost someone to suicide may become
active in the field of suicide prevention. For example, the Suicide Awareness Voices of Education (SAVE) organization developed from a grassroots movement of survivors to broaden the availability of information about depression and suicide (“Mission, Goals, and History, n.d., para 3). Similarly, the Suicide Action Prevention Network (SPAN USA) was formed in the same way, with persons bereaved by suicide working to prevent suicides and educate communities about suicide (“About SPAN USA,” n.d., para 2).

Other examples cited by Calhoun and Tedeschi (1995) include deciding to attend college and become educated following the experience of trauma. Janoff-Bulman (1995) echoed this assertion, reporting that survivors of trauma often transfer their traumatic experience into “altruistic acts” such as a rape victim working at a rape crisis center. Along with the positive changes one may experience in themselves following trauma, they may also experience positive changes in how they relate to other people in their life.

*Changed relationship with others.* Following a traumatic event, individuals often experience a changed sense of relationship with others (Tedeschi & Calhoun, 1995). This change in relationship with others may include closer family relationships and an appreciation for others in their life. Tedeschi and Calhoun theorized that it is, in part, self-disclosure that increases this sense of closer relationships. Janoff-Bulman (1995) described the experience of needing to self-disclose for trauma survivors as a positive and adaptive part of coping; in short, self-disclosure about a traumatic event improves social support. As previously mentioned, social support can also improve how an individual processes a traumatic event.
**Relating to others.** Individuals may experience improvement in their ability to relate to others following a traumatic event (Calhoun & Tedeschi, 2006). This can take the form of improved existing relationships or an increased sense of compassion for the pain of others. Calhoun and Tedeschi also reported that persons who have experienced trauma often develop a greater connection to other people. They theorized that this may also lead to a greater sense of intimacy, closeness, and freedom to be oneself (Calhoun & Tedeschi, 2006). Similarly, Tedeschi and Calhoun (1995) reported that improved relating to others can also result from a greater sensitivity to the needs and feelings of other people. For example, in a study of bereaved women, 83% reported that they had realized following their loss that they had family and friends they could depend on during their bereavement, and 60% of women found themselves expressing emotion more openly (Tedeschi & Calhoun, 1995). Tedeschi and Calhoun (1995) reported that there is a need for discussion and processing traumatic events in order for the individual to better understand the event. As such, a traumatic event can lead a traumatized individual to increased self-disclosure of emotions and cognitions.

**Changed philosophy of life.** Traumatic events can shatter basic assumptions that an individual holds. According to Janoff-Bulman (1995), those assumptions may include that the world is benevolent and meaningful, and that the self is worthy. This underlying philosophy of life is challenged significantly when a person encounters a traumatic event. Janoff-Bulman argued that those who survive traumatic events have been found via research to view the world less positively overall and that those events that are considered to be “acts of God” may be particularly challenging to one’s philosophy of life and
spirituality. Likewise, traumatic events that are caused by another’s hand (i.e. robbery, rape, murder, assault) provide their own unique sense of danger, as an individual may feel more powerless and helpless than if the traumatic event was not caused by another’s hand. Janoff-Bulman (1995) suggested that the experience of finding the post-trauma world more frightening than ever before is paradoxically connected with the ability to view the world as also having the propensity to be good. In short, the changes that experiencing a traumatic event may cause in an individual include challenges to one’s basic philosophical beliefs and/or assumptions that may result in both positive and negative outcomes.

**Spiritual change.** A person who endures a traumatic event may experience the most significant growth within the area of spiritual experiences (Calhoun & Tedeschi, 2006). Tedeschi and Calhoun (1995) reported that traumatic events can lead people to a search for spiritual answers that may or may not be resolved to their satisfaction. The authors reported that this can lead to a strengthening of spiritual beliefs and that the experience of coming to terms spiritually following a traumatic event can be comforting in a time of trauma (Tedeschi & Calhoun, 1995). Further, Janoff-Bulman (1995) suggested that persons who experience trauma may find comfort and connection to the suffering that is often written in religious texts, which may provide a new dimension to their spiritual life.

**Appreciation for life.** An individual who has experienced trauma may also report an increased appreciation for life and for what one has (Calhoun & Tedeschi, 2006).
Many things that were of importance prior to the traumatic event may no longer be found to be as important, and those things that had dwindled in importance may now hold greater meaning. For instance, one may find that events such as family gatherings may have increased importance when compared with attending a concert. In short, the experience of trauma often leads persons to develop a new or altered set of priorities for what is important in their lives. Persons who experience traumatic events also describe a sense of realizing that their time and their relationships are precious (Tedeschi & Calhoun, 1995). While the focus of their theory is on positive growth from traumatic experiences, Calhoun and Tedeschi (1995) also acknowledge that this positive growth occurs simultaneously with the negative impact of these same traumatic experiences. As such, it is important to explore both the positive and negative impacts of trauma on an individual.

Negative Impact of Traumatic Experiences

Although the theory of PTG focuses predominantly on the positive outcomes of traumatic events, it does not ignore the typical negative reactions (Tedeschi, Calhoun, & Cann, 2007). For instance, Tedeschi and Calhoun (2004) reported that persons facing life crises often experience distressing emotions such as anxiety and fear, depression, and sadness. Additionally, research suggests that persons who have survived a traumatic event often experience guilt at what they did not do to prevent the trauma. Feelings of anger and irritability may be experienced and expressed at various targets (i.e. anger and irritability resulting from a traumatic event may be expressed at a family member otherwise uninvolved with the trauma) (Tedeschi & Calhoun, 1995). The authors also
stated that the most frequently encountered negative emotional reactions are the experience of fear and anxiety which can pervade over all the areas of one’s life. This anxiety and fear are likely to increase in environments or locations that remind the individual of the traumatic event (i.e. a dark alley for a mugging victim) (Tedeschi & Calhoun, 1995). Finally, Tedeschi and Calhoun (1995) reported that depression is very common for persons coping with traumatic life circumstances, particularly those which include significant loss. Overall, individuals who experience a traumatic event are likely to have a variety of distressing emotions that are only exacerbated by changes in thinking such as intrusive images or thoughts.

Negative reactions may also include dysfunctional patterns of thinking such as disbelief, numbness, and repetitive thoughts and images of the challenging event. Specifically, Tedeschi and Calhoun (1995) reported that initial reactions to trauma, including shock, disbelief, and psychological numbness are not uncommon, particularly immediately following a traumatic event. Thoughts, images, and recollections of traumatic events often intrude unexpectedly and unintentionally into the lives of those who have experienced them. These thoughts can also be observed less directly by an individual behaving in a more vigilant manner, such as avoiding stimuli that remind him or her of a traumatic event. This avoidance can in turn cause him or her to avoid certain areas or aspects of his or her life. An example of this would be avoiding a favorite place that he or she once frequented with a friend who has passed away. A traumatic event can also lead people to think differently about themselves, resulting in decreased self-esteem. Finally, Tedeschi and Calhoun reported that trauma survivors often struggle to achieve an
understanding of what has happened. This search for an answer to “why” something has happened can be a painful and difficult journey that may never end.

When stress levels are high for individuals, negative physical reactions may also occur (Tedeschi & Calhoun, 2004). Some of these reactions are due to the surge in adrenaline that occurs during a traumatic event, directly causing increased blood pressure, rapid breathing, muscle tension, and readiness to respond to the environment (Tedeschi & Calhoun, 1995). Due to frequent arousal, individuals may experience physical symptoms including fatigue, muscle aches, gastrointestinal symptoms, and physical pain. This increase in adrenaline can wear down the body of an individual and then, in turn, can also lead to a heightened risk of physical illness overall (Tedeschi & Calhoun, 1995). While the theory of PTG does not ignore negative physical reactions occurring for an individual after experiencing a traumatic event, the overwhelming focus is on the positive growth after trauma. The exploration of growth after trauma has taken many forms and has been investigated in many different areas.

Posttraumatic Growth in the Literature

Researchers have sought to identify empirically the positive results of experiencing trauma. In keeping with the format of the present study, this literature review includes studies that explore both the negative and the positive effects of trauma on individuals. As the literature indicates through studies of various traumas, including road trauma, war trauma, and loss to death by both parents and children, various types of trauma can lead to both positive and negative sequelae. There are two main ways in which researchers have approached exploration of posttraumatic growth: by asking
participants to identify the way in which they have been traumatized (i.e. doing research on trauma in general) and gathering groups of individuals who have experienced the same trauma (i.e., car accidents, war trauma, etc.) and exploring their experiences.

Trauma in General

With regard to studies of traumatic experiences in general, Baker, Kelley, Calhoun, Cann, and Tedeschi (2008) conducted two separate studies. The first examined the experiences of undergraduate students ($N = 286$). The primarily Caucasian (73%) and female (79%) participant group had experienced a wide array of traumatic events, including the death of a loved one, serious medical issues, motor vehicle accidents, and serious relationship issues. Baker et al. had participants complete several measures including the Life Events Report (Norris, 1990) and the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), as well as a measure created for the study to mirror the PTGI only measuring the negative results of trauma. The measure was designed to allow participants to describe the negative effects in the same domains of the PTGI (e.g. personal strength, new possibilities, relating to others, spiritual change, and appreciation for life). Instructions were given to participants explaining that persons can experience both positive and negative effects from an event within the same domain.

Reliability for this measure of the negative effects of trauma on growth-related areas, according to Baker et al. (2008) was .89 overall, and ranged from .59 (Appreciation of Life) to .84 (New Possibilities) for scale scores, in comparison to the PTGI reliabilities, .90 overall and scale coefficients ranging from .72 (Personal Strength) to .85 (Spiritual Change). Their results indicated that when looking at item pairs (i.e., the
item on the PTGI and its corresponding item on the negative result measure) over one quarter of participants reported both growth and negative outcomes. For example, on the domain of Appreciation of Life the item on the PTGI “I appreciate each day more” was changed to “I appreciate each day less.” For the domain of New Possibilities, the item “I established a new path for my life” on the PTGI was changed to “I have a less clear path of my life” on the new measure. For the domain of Spiritual Change, items included “I have a weaker religious faith.” Sample items for the other two domains were not offered in the original text.

In their second study, Baker et al. (2008) administered the same measures (Life Events Report, PTGI, and depreciation measure) to 184 participants (48 men and 136 women) who had experienced a traumatic event. Traumatic events that were experienced by participants included the death of a loved one, school difficulties, intimate relationship difficulties, and serious medical issues. However, for this study, the items of the PTGI and negative outcomes measure were paired and offered together, with “some” participants receiving the negative items first in each pair and “the other” participants receiving the original PTGI item first in each pair. The order of pairing was determined randomly. Reliabilities for the PTGI in this study ranged from .89 for the total scale and , from .67 to .82, for the subscales. The reliabilities for the negative outcomes scales ranged from .64 to .83, with the reliability for the total measure of .90. Again, across item pairs, approximately one-quarter of participants reported some change on both dimensions of matched items, but scores on the PTGI were significantly higher than those on the negative outcomes (F = 317.55, p < .001, partial $\eta^2 = .64$). Overall, results of this study suggest that individuals may report both positive and negative outcomes following
traumatic events. Particularly important to note, according to Baker et al. is that individuals can report both positive and negative results within the same domain at the same time. Further, Baker et al. argued that their results indicated that participants can report depreciation independently from growth, even when the focus is on the same areas, although traditional wisdom may not support the idea that one can have both growth and depreciation within the same area. In short, the authors argued that the assumption that individuals who report more growth will report less depreciation in the same areas is not supported, suggesting that PTG and negative effects of trauma are separate constructs.

Although the study by Baker et al. (2008) provided an interesting perspective that it is important to explore both positive and negative effects of a traumatic event, their study has several limitations. First, participants of the study were drawn from an undergraduate population that was primarily Caucasian and primarily female, limiting the ability to generalize to the greater population of trauma survivors. Second, Baker et al. did not evaluate their newly-created measure of negative reactions beyond reliability, but assumed construct validity based on its relationship to the PTGI. This claim is unsupported and the validity of the interpretation of this measure should be further studied. Finally, participant reports of traumatic events leave some question as to where the line of “trauma” is drawn—do relationship difficulties qualify as a traumatic event? As such, other studies have identified specific traumatic events and focused on the experiences of individuals from each of those areas.
Specific Trauma

Exploration of groups of persons who have experienced the same trauma has presented a set of varying traumatic events. While including only individuals who experience a particular type of trauma has its own limitations, it provides some homogeneity across participant experiences. As such, the following studies explored the experiences of individuals who have survived road trauma, war trauma, the loss of children born prematurely, and parental cancer.

Road trauma. Harms and Talbot (2007) explored the experiences of survivors of road trauma. Participants were recruited from a rehabilitation center via an anonymous postal survey, yielding a response rate of 26% (n = 78). Individuals participating were 53% male and had a mean age of 49 years old, with ages ranging from 22 to 85 years. Individuals who agreed to participate had all been seriously injured in road accidents three to four years prior to the study and completed the Impact of Event Scale (IES; Horrowitz et al., 1979) and the PTGI (Tedeschi & Calhoun, 1996).

With regard to negative effects of the trauma, participants had primarily experienced orthopedic injuries requiring rehabilitation treatment. The majority of participants (86%) reported that they continued to experience physical difficulties with changes in movement, recreation, activity level, or lifestyle. Women reported psychological difficulties more often than men, and a small percentage reported ongoing spiritual difficulties. More than half of survivors, however, reported problems with social situations, typically due to a loss of confidence. Approximately one-third reported ongoing legal difficulties and over half of participants reported financial difficulties. The
majority of the respondents felt that their accident was the most traumatic thing they had ever experienced (79%). More than one-third reported a high level of distress based on the IES, although approximately 13% reported no symptoms of trauma at all and 17% reported being “mildly symptomatic.” Overall, at least one-third of the participants cited ongoing post-traumatic stress disorder symptoms, even if not diagnosed with PTSD (Harms & Talbot, 2007).

According to Harms and Talbot (2007), participants’ overall level of growth reported was lower than compared to other samples. However, 99% of the sample reported at least very small experiences with growth. A small number of participants (6%) reported they had experienced a “very great change,” and another 18% reported “great change”. Women reported more growth on all scales, but only statistically significant differences on two scores—relating to others and spiritual change—and thus on the overall PTGI score as well. Harms and Talbot also reported some significant and specific observations about the participants of their study. Eighty-six percent of the respondents reported change in the area of “knowing that I can count on people in times of trouble.” Eighty-one percent of respondents reported “being able to accept the way things work out.” Participants also reported change in “having an appreciation for my own life” (p. 132). Participants reported the least amount of change in the areas of spirituality and new possibilities. Harms and Talbot concluded that “These findings seem to support the notion that some degree of ongoing difficulty is necessary to sustain perceptions of growth” (p. 135).

Harms and Talbot’s (2007) study provides a unique perspective of a particular type of trauma. However, there are some important limitations to note. First, their
response rate of participants was only 26%, suggesting that there may have been a response bias. For instance, perhaps only those individuals who had already experienced some growth were willing to respond to the measures and those who continued to be too traumatized were unable to do so. Second, participants were several years out from their experience of trauma, which may have influenced their responses to measures. A sample with a larger variation of time since trauma may have provided some additional and unique information about the experience of trauma survivors. Third, participants from the study were patients of a rehabilitation center. It is possible that individuals who are involved in on-going physical treatment are also receiving psychological support during their physical treatment, which may encourage posttraumatic growth. Finally, the authors did not provide effect sizes for their results, making it difficult to determine the magnitude of the effect. Despite these limitations however, the results of Harms and Talbot’s study support the idea that individuals who experience road trauma appear to experience both negative symptoms and positive outcomes.

War trauma. In a study of Israeli ex-Prisoners of War (POWs), Solomon and Dekel (2007) explored both Posttraumatic Stress Disorder and Posttraumatic Growth in Israeli army soldiers. Participants included ex-POWs ($n = 103$) and a control group of combat veterans ($n = 106$). Individuals were re-contacted from a study conducted in 1991 (see Solomon, Neria, Ohry, Waysman, & Ginzburg, 1994) and were matched based on personal and military background. Persons in the control group did not differ from the POW group in terms of age, education, religiosity, or income, and the mean age of participants was 53.4 years of age. Participants completed the PTGI (Tedeschi &
Calhoun, 1996), a Posttraumatic Stress Disorder Inventory (PTSD Inventory; Solomon et al., 1994), and a measure that assessed coping in captivity that was designed for the study. The measure of PTSD was developed for the previous study (Solomon, et al., 1994) by the primary author, but was based on the 1987 definition of PTSD by the American Psychiatric Association (APA; DSM-III-R, APA, 1987). The data were analyzed utilizing the new definition from the Diagnostic and Statistical Manual IV (APA, 1994) by paralleling the change in the diagnostic criteria, which included moving the “physiological reactivity to resembling events” symptom in the DSM-III-R from the hyperarousal cluster to the intrusion cluster of symptoms.

Results were analyzed in terms of PTSD symptoms and PTG among POW and control groups. Solomon and Dekel (2007) reported that significantly more ex-POWs than controls met DSM-IV criteria for PTSD 30 years after their combat experiences ($n = 23, 23\%$ and $n = 4, 3.9\%$, respectively, $\chi^2 = 16.82, p < .001$). However, conducting a Chi-square test with a sample size smaller than five can be problematic and may not provide correct results (Choudhury, 2009). More specifically, a MANOVA was conducted to examine group differences and found that ex-POWs exhibited significantly more symptoms in each of the intrusion, avoidance, and hyperarousal areas ($F = 48.86, p < .001$) (Solomon & Dekel, 2007).

With regard to Posttraumatic Growth, there was again a significant difference between ex-POWs and controls ($F = 23.01, p < .001$) (Solomon & Dekel, 2007). Ex-POW participants showed significantly higher levels of growth than their combat-only counterparts on all five subscales of the PTGI as well as in the total score ($F = 5.68, p < .001$). Interestingly, curve estimation regression analysis completed on trauma symptoms
indicated that there was a curvilinear (inverted U) relationship between PTSD symptoms and growth. Specifically, participants who reported intermediate levels of symptoms reported the highest levels of growth and those who reported low and very high levels of symptoms reported lower levels of growth. This may indicate that moderate levels of distress must exist in order for growth from a traumatic event to occur. In addition, it may indicate that individuals suffering from extreme levels of distress following trauma may struggle to grow following a traumatic experience.

Further exploration of ex-POWS also indicated that age correlated positively with education and negatively with the number of PTSD symptoms (Solomon & Dekel, 2007). Education, in turn, correlated positively with active coping and negatively with subjective suffering in captivity. This indicates that those who were more educated experienced fewer PTSD symptoms, were able to utilize more active coping skills, and experienced less subjective suffering in captivity. The measure of coping included items related to active coping, detachment from the events, and loss of emotional control. Solomon and Dekel reported that in ex-POW participants, subjective suffering correlated positively with the three coping factors and with the number of PTSD symptoms and PTG. In short, the more suffering one experienced, the more the need to utilize coping skills, but the fewer PTSD symptoms individuals experienced. Further, Solomon and Dekel found that participants who expressed higher levels of detachment as a coping strategy and more PTSD symptoms reported more Posttraumatic growth.

With regard to limitations, Solomon and Dekel (2007) acknowledged that their attrition rate of close to 30% due to death, mental health or cognitive decline, inability to locate, and refusal to participate, limited the generalizability of the their study. An
additional limitation includes the development of their coping measure, which was done with limited psychometric evaluation and thus is not fully validated. Participants were all male, given their participation in the Israeli army, which also limits generalizability. Another limitation includes the authors’ failing to include effect sizes for their results. It is important to have a sense of the effect size to understand more clearly the magnitude of the effect. Individuals experiencing traumas such as road trauma and war trauma have displayed similar symptoms of both posttraumatic stress disorder or other negative symptoms and posttraumatic growth. Another well-documented area of both loss and growth is that of loss due to death.

Loss of children born prematurely. Loss and growth following death of a loved one can be very difficult and researchers have studied the impact on parents who have lost a child to death. For example, in their study of grief and posttraumatic growth in parents following the death of their premature babies, Büchi, Mörgeli, Schnyder, Jenewein, Hepp, Jina, et al. (2007) studied participants from Swiss hospitals who had experienced the loss of a child at 24-26 weeks gestation. Fifty-four participants completed measures of grief, posttraumatic growth, a measure of suffering due to the loss of a baby, and a measure of depression and anxiety. Measurement was completed between two and six years following the loss of their child.

Eighty percent of parents reported continued signs of bereavement (Büchi et al., 2007) according to the Münchner Trauerskala Grief Scale (MTS; Beutel et al., 1995). Parents who had no other children had significantly higher grief scores \( (p < .05) \) and time since loss had no effect. Participants also reported that their baby still had a central place
in their lives, even 2-6 year following its death. Given their loss, some participants even reported symptoms of depression severe enough to qualify for a probable depressive disorder (4%) and anxiety symptoms severe enough to qualify for a probable anxiety disorder (28%).

With regard to posttraumatic growth, Büchi et al. (2007) reported that participants identified experiencing some growth on the dimensions of PTG. For example, 44% of fathers and 78% of mothers reported having new priorities about what is important in life as a result of their loss. Parents with higher grief scores had increased posttraumatic growth \( (r = 0.37, p < 0.01) \). In addition, those parents reporting their baby had a more central role in their current lives also reported increased grief \( (r = -0.62, p < 0.001) \) and posttraumatic growth \( (r = -0.35, p < 0.01) \). However, those who had experienced increased depression and anxiety reported less posttraumatic growth. Mothers had significantly higher posttraumatic growth scores than fathers (Mann-Whitney U test, \( U = 140.5, p < 0.001 \)), although they also reported experiencing significantly more grief as well (Mann-Whitney U test, \( U = -230.5, p < 0.05 \)). This finding is similar to other studies that found that persons who experience more negative results from a trauma also may experience more posttraumatic growth.

In this study of a unique population, the sample size is limited and there is a strong possibility that selection bias impacted the results. In addition, no control group was provided, so it is difficult to know how the experiences of grief and posttraumatic growth of parents who lost a premature child compare with other groups, such as parents who lose a young child who was not born premature. The study was conducted in Switzerland and utilized measures in German. However, no description was provided of
translations of the posttraumatic growth inventory used, so it is unclear if this measure had been validated. Finally, the authors of the study did not provide effect sizes for their significant results, so it is difficult to determine the magnitude of the effect. The experience of parents losing children may lead to both positive and negative sequelae, indicating that studies of other types of loss due to death may also exhibited similar outcomes.

*Trauma of parental cancer.* In a study of the long-term growth and adverse effects of parental cancer on children, Wong, Cavanaugh, MacLeamy, Sojourner-Nelson, and Koopman (2009) recruited adult children whose parents had cancer when the child was between the ages of eight and 17. In their sample of 27 (19 women and 8 men), participants were interviewed at a private location about their experience of parental cancer. At the time of the interviews, eleven of the parents had passed away. However, little information about the content of the interviews, interviewers, or length of interviews was provided.

Wong et al. described that participants were interviewed in an open fashion, providing them the opportunity to express both positive and negative effects of experiencing a parent with cancer. Participants reported experiencing negative long-term effects of their parent’s cancer 59% of the time. These included feelings of loss and void, having concern for their own health, experiencing negative outlooks on life, and negative impacts on interpersonal situations. Participants who reported worrying about their own health stated that their concern arose from the risk of genetic connections to their parent’s cancer. Participants also sometimes reported negative changes in their outlook on life.
Some participants reported a general fear of trusting others or a fear that others may leave their life unexpectedly. Persons who expressed negative changes in personal relationships stated that some family members became detached from the participant because the participant’s presence was too painful and reminded the family too much of the person who passed away from cancer. However, not all of the effects of persons struggling with parental cancer were negative effects.

With regard to positive effects, Wong et al. (2009) reported that 44% of participants mentioned one or more type of posttraumatic growth. Specifically, participants mentioned that they experienced improved character, increased appreciation for life, strengthened personal relationships, and an increased interest in cancer issues. Those individuals who reported experiencing improved character indicated that they developed more maturity than others their age or that they experienced increased compassion for others. Participants who reported improved appreciation for life reported that they found themselves more grateful for persons in their life and taught them “to not take many things for granted,” (p. 57). Participants who reported strengthened personal relationships reported stronger relationships with their family, including feeling emotionally closer with the parents who were ill and other family members who went through the difficult time with them. Finally, participants who experienced an increase in interest in cancer issues reported that they often desired to give back to the community of cancer parents and supporters.

While Wong et al.’s (2009) study provided an opportunity for children who struggled with parental cancer to express both the adverse and positive effects of their experience, it had several limitations. For example, participants were recruited as a
convenience sample of self-identified individuals. It is possible that this caused a self-selection bias for individuals who were either more extensively bereaved or significantly impacted by the experience of their parent’s cancer. In short, the experience of these participants does not necessarily represent all survivors of parental cancer. Additionally, given the lack of information regarding the interviews themselves, it is difficult to know if the interviews were standardized or not, and what effect, if any, interviewer characteristics may have played.

Overall, it is clear from this literature review that various traumatic experiences, including road trauma, war trauma, and loss to death by both parents and children, can lead to both positive and negative reactions. Given that these varied experiences lead to similar positive and negative sequelae, subsequent evaluation of the experience of suicide survivors and the impact of the loss of their loved one’s as trauma is arguably a valid and appropriate approach.

Bereavement by Suicide as Trauma

The previous review supports the idea that the results of experiencing a trauma are similar across traumatic events. Persons who experience trauma may experience emotional difficulties including anxiety, depression, anger and irritability, which sometimes reach the level of diagnosable mental illnesses such as Post-traumatic Stress Disorder, Major Depressive Disorder, or anxiety disorders. The effects of the trauma may be far-reaching enough to permanently alter individuals’ perception of themselves, the world, and social relationships. In short, a traumatic experience is that which shakes the basic assumptions of an individual’s life. As such, it is easily argued that the loss of a
loved one to suicide may be considered a traumatic experience. The subsequent literature review will provide supporting evidence in terms of the negative and positive impacts and challenges to an individual who is bereaved by suicide.

Negative Sequelae of Surviving Suicide

Several major areas of negative effects of suicide bereavement have been identified. These areas are not exhaustive, but research has consistently identified areas in which bereavement by suicide negatively impacts the individual. The areas identified most consistently include grief, mental health issues, physical health problems, and social stigma.

**Grief**

The experience of grief itself is natural following loss (Kubler-Ross, 1969; Osterweis, Solomon, & Green, 1984). However, the literature suggests that individuals who lose a loved one to suicide may experience a more challenging grieving process than someone who is grieving from a different type of loss. This type of grief is often termed “complicated grief” because it lasts longer and is more challenging than “normal bereavement” (Mitchell, Kim, Prigerson, and Mortimer-Stephens, 2004). According to the complicated grief symptoms utilized by Mitchell et al. (2004), symptoms must result from bereavement by death in order to be considered complicated grief. The symptoms may include yearning, longing for, and searching for a reason for the death of their loved one. Symptoms also may include preoccupation with the deceased, upsetting memories, inability to accept the death, and feeling drawn to places associated with the deceased. In
the bereaved, symptoms may also include excessive anger or bitterness, feeling stunned, dazed, or shocked, lack of trust in others, withdrawing from others, avoiding reminders of the deceased, feeling that life is empty and/or meaningless, and a sense of loneliness without the deceased (Mitchell et al., 2004). Complicated grief can further lead to an increased risk of suicidal ideation or depression (Mitchell et al., 2005; Szanto, Prigerson, Houck, Ehrenpreis, & Reynolds, 1997).

For example, in a study of complicated grief in the suicide bereaved, Mitchell et al. (2004) examined the experience of 60 Caucasian suicide survivors. The participants were primarily female (72%) with a mean age of 43.3 years ($SD = 13.7$, range 18-78 years). Participants completed a measure of complicated grief (Inventory of Complicated Grief; ICG; Prigerson, Maciejewski, Newson, Reynolds, Frank, Bierhals et al., 1995) within one month of the loss of a loved one to suicide as a part of a larger crisis intervention study. Participants were identified as closely related (e.g. spouse, parents, children, or siblings) 45% of the time and as distantly related (e.g. in-laws, aunts/uncles, nieces/nephews, and friends or coworkers) 55% of the time.

Mitchell et al. (2004) reported that a slight majority of participants (56.7%) scored below the cut-off score for complicated grief, leaving 43.3% of participants meeting the cutoff score for complicated grief, indicating that they indeed experienced symptoms at a level of severity high enough to cause extensive distress or impairment. When examined based on the closeness of the relation to the individual who died by suicide, those who were more closely related experienced complicated grief at a higher level than those who were more distantly related (mean = 37.44 for closely related, 17.27 for distant relationships; $F= 47.66, p < .001$). Children of the deceased most commonly met the cut
off score for complicated grief (80%), and spouses (77.8%), parents (66.7%), and siblings (57.1%) were also more likely to report symptoms at or above the cut-off for complicated grief as compared to those with less close relationships to the deceased.

The differences in complicated grief scores across relationship categories were also explored by Mitchell et al. (2004) using an ANCOVA, controlling for age and gender, although the niece/nephew category was not examined since it only contained one participant. Relationship classification to the deceased explained a significant proportion of the variance in complicated grief scores ($\eta^2 = .43$). Spouses were found to have the highest complicated grief scores (mean = 41.78, $SD = 14.16$) and friends/coworkers were found to have the lowest complicated grief scores (mean = 16.29, $SD = 7.62$). Post-hoc comparisons utilizing Bonferroni correction confirmed that spouses had significantly higher complicated grief scores than in-laws and friends and co-workers, and parents had significantly higher mean complicated grief scores than in-laws and friends/co-workers. Children were found to have significantly higher complicated grief scores than in-laws and friends/co-workers. The complicated grief mean score for siblings were not as high as the mean scores for children, spouses, and parents. Overall, Mitchell et al. (2004) argued that complicated grief is important to assess in persons bereaved by suicide because it may lead to the need for different types of mental health care. Thus, the closeness of the relationship between the bereaved and the individual who died by suicide appears to impact the level of complicated grief one experiences.

However, there are some significant limitations to Mitchell et al.’s (2004) study. First, the study sample size was only 60 and was entirely made up of Caucasian individuals. Further, the study was also primarily composed of female participants,
limiting the generalizability of the results. Participants were approached for the study within one month following bereavement, which may have influenced their responses to the measure of complicated grief, either increasing the severity of their ratings due to the newness of the loss, or decreasing the severity of their ratings because their symptoms had not yet fully developed. In addition, the closeness of the relationship via kinship also does not describe the emotional closeness or quality of the relationship, which may further confound the results.

In another study, De Groot, De Keijser, and Neeleman (2006) recruited family members bereaved by suicide \( n = 153 \) and family members bereaved by nonsuicide deaths \( n = 70 \) via the general practitioners of the decedents three months following loss of their loved one. Researchers reported significant difficulty getting general practitioners to recruit suicide bereaved individuals, but were more apt to recruit individuals who lost someone by natural causes, particularly of those who were older. As a result, participants who had lost a loved one due to natural causes tended to have lost a loved one who was significantly older (mean age of decedent in suicide = 44, \( SD = 17.0 \); mean age of decedent in natural cause deaths = 55, \( SD = 22.0 \)). Participants who were bereaved by a suicide death were mostly females (77%) bereaved by the death of a female decedent (83%). Participants had an average age of 42 (\( SD = 14.1 \)). Participants were related to the individual who died by suicide in various ways, including as spouses (24.2%), parents (23.5%), children (24.2%), or siblings (19.6%). Those bereaved by natural deaths tended to also be females (77%) surviving the death of a female decedent (78%). They also were related to the decedent in various ways, including as spouses (42.9%) and children (34.3%). Those who were bereaved by a natural death had an average age of 47 (\( SD = 22.0 \)).
Participants completed measures of personality, mastery (the general degree to which one experiences control over what goes on in one’s life), self-esteem, general health, depression, suicidality, and grief. Individuals who were bereaved by suicide were compared with nonsuicide bereaved individuals on various measures to determine if the type of bereavement influenced the responses.

DeGroot et al. (2006) conducted multiple regression analyses to determine whether the mode of death influenced the level of psychological difficulties or physical health, after controlling for potential confounds such as age, expectedness of death, and participant’s level of neuroticism. Results suggest that those individuals who were bereaved by suicide had higher scores on a measure of neuroticism ($t = 2.3, p < .05$), loneliness ($t = .1, p < .01$), and depression as compared to individuals who were bereaved by natural deaths. Participants bereaved by a loss to suicide also reported poorer functioning in physical health than those who were naturally bereaved on several different measures of health, including general health ($t = 2.4, p < .05$). It is important to note, however, that both individuals who were bereaved by suicide and natural causes reported poorer functioning on all health domains, except for pain in the naturally bereaved group, when compared with a reference group from the general population ($p < .001$). With regard to suicidal ideation and suicidal behavior, De Groot et al. (2006) reported that significantly more of the suicide bereaved (6.5%) than the general population (2.9%) had attempted suicide.

However, the focus of the study for De Groot et al. (2006) was the levels of complicated grief in individuals bereaved by both suicide and natural deaths. Participants who had lost a loved one to suicide were more likely to report higher levels of
complicated grief ($t = -2.9$, $p < .01$). When a cut-off score was applied, more suicide than naturally bereaved individuals met the criteria for complicated grief (38% versus 9%).

Limitations to De Groot et al.’s (2006) study include the selection method. Given that participants were recruited via the general practitioner of their loved one who passed away, it is difficult to know whether the doctor’s non-referrals were due to some unique characteristic that was not otherwise represented in the study, or if family refusals also included unique characteristics. De Groot et al. cite that a limitation to their study is that it may have over-emphasized the vulnerability of suicide for those bereaved by suicide. Another limitation of this study includes its limited sample size and focus only on negative experience of persons bereaved by suicide.

Overall, it is clear that individuals who survive the loss of a loved one to suicide frequently experience symptoms of grief that exceed grief from “normal” bereavement. These symptoms are often long-lasting, even up to a year to one and one-half years following the loss and significantly and often problematically affect persons bereaved by suicide. In addition to complicated grief, persons bereaved by suicide often struggle with mental health issues related to their loss.

**Mental Health Issues**

Persons bereaved by suicide frequently experience mental health issues as a result of their loss. These mental health issues can range from depression to other mental health disorders such as anxiety disorders or posttraumatic stress disorder (Brent et al., 1993; Saarinen, Hintikka, Lehtonen, Lönqvist, & Viinamäki, 2002). When investigating the negative impact that suicide may have on an individual, researchers tend to explore many
different aspects of the experience of suicide survivors and explore broadly the experiences of the suicide bereaved. For example, one study may explore symptoms related to depression, anxiety, or PTSD all within the same study rather than focusing on one area of symptoms, such as depressive symptoms. However, each study provides an important exploration into the experience of the suicide bereaved.

Mitchell, Sakraida, Kim, Bullian, and Chiapetta (2009) explored the experience of 60 persons bereaved by suicide in terms of depression, anxiety, and quality of life. Participants were 72% Caucasian women and 28% Caucasian men that were predominantly Catholic (67%), with a mean age of 43.3 years (range = 18-78 years). The majority of participants were married (55%) and lived with a partner (approximately 95%). Participants were bereaved by suicide within one month by the suicide of a family member, significant other, friend, or coworker. Participants completed the Beck Depression Inventory (Beck, Ward, Mendelson, Mode, & Earbaugh, 1961), the Brief Symptom Inventory (Derogatis, Lipman, & Covi, 1971), and a measure of quality of life, the Medical Outcomes Study Short Form 36 (MOS-SF36; Derogatis, Lipman, & Covi, 1974). Participants were also separated into groups of closely related (n = 27; parents, children, spouses or siblings), and distantly related (n = 33; in-laws, aunts/uncles, nieces/nephews, friends, and coworkers). The close and distantly related groups did not differ in any major characteristics (i.e. age, gender, race, religion, etc).

Mitchell et al. (2009) conducted an ANCOVA to explore the differences between the closely and more distantly related groups, after controlling for age and gender, given there were no age or gender effects. Results suggested that those who were more closely related to the individual who died by suicide reported significantly higher levels of
depression ($F(1, 58) = 24.83; p < .001$), and anxiety ($F(1, 58) = 35.07; p < .001$) and lower levels of mental health quality of life ($F(1, 58) = 18.13; p < .001$) than those who were more distantly related. Mitchell et al. then completed pairwise comparisons to establish significant differences between particular relationship categories. The results suggested that spouses, parents, and children tended to report higher levels of depression, which were at the moderate-to-severe level. Spouses had the highest overall level of depression, which was statistically significantly higher than the level of depression in siblings, in-laws, friends/coworkers and nieces/nephews, but not statistically significantly higher than the level of depression in children and parents. Children and spouses were found to have the highest anxiety levels, followed by siblings and parents, although these differences were not statistically significant. The more closely related individuals also reported statistically significantly higher overall levels of anxiety than did those who were more distantly related. Spouses and parents of those lost to suicide reported the lowest levels of overall mental health quality of life, followed by children and siblings.

Mitchell et al.’s (2009) study has several significant limitations. First, their sample size was relatively small and homogeneous, with all Caucasian individuals. Second, although sub-group (i.e. spouses, parents, and children) differences were examined, most sub-groups contained fewer than ten participants in each group, which is likely too small of a sample to accurately conduct the types of statistical procedures completed and may have contributed to the lack of statistical significance among the more closely related individuals. This study also focused only on the negative sequelae of bereavement by suicide.
Saarinen, Viinamäki, Hintikka, Lehtonen, and Lönnqvist (1999) explored the experience of 104 persons bereaved by suicide and interviewed utilizing a structured interview. Participants were primarily women \((n = 67)\) and were the mother (24%), father (9%), wife (19%), husband (6%), or adult child (10%) of the individual who died by suicide. The remaining 32% of participants were another close relative or friend of the individual who died by suicide. Saarinen et al. indicated that almost half of the interviewees (43%) reported depression and feelings of guilt following the suicide. Women tended to report depression more frequently than did men (51% vs. 30%, \(\chi^2 (1) = 4.29, p < 0.05\)), and mothers reported depression most often (72% vs. 34%, \(\chi^2 (1) = 11.07, p < 0.01\)).

Three of Saarinen et al.’s (1999) participants reported repeated suicidal thoughts after the loss of their loved one to suicide. The authors further stated that thirteen participants (13%) reported feelings of anger toward the individual who died by suicide, and twenty-four participants (23%) reported somatic symptoms such as tiredness, abdominal problems, loss of appetite or overeating, and sleep disturbances. Participants indicated that the loss of their loved one to suicide was a surprise in 81% of the cases, even though 50% of the individuals who had died by suicide were receiving psychiatric treatment during the 12 months before their death.

While this study by Saarinen et al. (1999) provides a basic look at the experience of persons who were bereaved by suicide, it also had several limitations. Although the interview administered was standard across participants, the responses of the participants were not analyzed in such a way to allow for generalization, which makes it difficult to compile and report with consistency and may jeopardize the validity of the study. Further,
there was no control group, so it is unclear how the experience of those bereaved by suicide may be similar to or different from other types of losses.

In a follow-up study by Saarinen, Hintikka, Lehtonen, Lönnqvist, and Viinamäki (2002), those bereaved by suicides that occurred in 1987 in Finland were investigated utilizing a psychological autopsy method (Henriksson et al., 1993). As a part of that study, 104 individuals were interviewed as next-of-kin following their loved one’s suicide. At the ten-year follow-up by Saarinen et al., 99 were still alive and asked to participate in the follow-up study. Potential participants included family members (27 spouses, 57 relatives by blood). Of these, 18 spouses and 38 other blood relatives (20 parents, 11 siblings, and 7 children) participated. Participating spouses (mean age 54.4, $SD = 10.6$) did not differ in mean age from responding blood relatives (mean age 57.6, $SD = 11.3$). The mean elapsed time from suicide to follow-up was 9.6 years (range 9.1 - 10.1 years). Saarinen et al. reported that there were no new statistically significant differences than found at baseline between respondents who chose to participate in the follow-up and those who did not in terms of prevalence of mental symptoms such as depression, guilt, shame, anger, and suicidal ideation. Concurrently, telephone interviews were conducted with a random sample ($n = 1,656$) from the general population of Finland. Participants from this control group were asked the same questions as those from the bereaved by suicide group. The participants of the control group were 875 women and 781 men. From this sample, two controls matched for sex and age were selected at random and compared to each individual bereaved by suicide.

Participants of the study by Saarinen et al. (2002) answered questions regarding sociodemographic data including questions about the amount of social support they
received and their present general health and economic situations. Participants also completed the General Health Questionnaire (GHQ-12; Goldberg, 1972), a measure designed to detect cases of mental illness. Results of the GHQ-12 provides a cut-off score for those who are likely “normal” in terms of mental well-being and those who have a “probable” minor mental disorder, a term which is never clearly defined in the original text.

When comparing the suicide bereaved group with the control group, the suicide bereaved individuals were more likely to score in such a way suggesting a minor mental disorder than the general population controls (30% vs. 13%; \( \chi^2 (1) = 6.54; \) Saarinen et al., 2002). Surviving spouses (39%) were more likely than general controls (11%) to meet criteria for a minor mental disorder. Those bereaved by suicide reported more often than their controls that they had four or fewer close friends with whom they could express personal matters (73% vs. 39%; \( \chi^2 (1) = 17.19, p < 0.001 \)). In addition, among those who were bereaved by suicide, a GHQ-12 score above the cutoff score for minor mental illnesses was more common among those having one or zero close friends than among other persons bereaved by suicide. Other suicide bereaved individuals who scored above the cutoff on the GHQ-12 were also more likely to perceive their social support as insufficient (100% vs. 23%, Fishers two-tailed exact test \( p = 0.0002 \), no \( t \) statistic provided), and those who reported a poor economic situation (63% vs. 25%) were more likely to score over the cutoff on the GHQ-12, as were persons who reported poorer general health (80% vs. 25%, Fisher’s exact test \( p = 0.03 \), no \( t \) statistic provided).

Overall, Saarinen et al. (2002) concluded that having limited social support may increase the risk of minor mental disorders. Saarinen et al. reported that having few
friends, insufficient social support, or poor general health were all associated with a significantly higher prevalence of mental distress in suicide survivors, but not in the general population controls. In addition, minor mental disorders were more common in spouses bereaved by suicide than in the general population controls and other persons bereaved by suicide.

This unique long-term follow-up by Saarinen et al. (2002) provided interesting information on the mental health and social experiences of those bereaved by suicide. However, given the still somewhat limited sample size and the limited data collected from each individual, it is difficult to note the true effect of suicide bereavement in this study. Saarinen et al. also did not provide adequate information about their statistics and procedures. Finally as in most studies in this area, Saarinen et al. focused solely on the negative effects of bereavement by suicide.

In a study testing an early bereavement intervention for parents bereaved by the death of their children by accident, suicide, or homicide, Murphy, Johnson, Wu, Fan, and Lohan (2003a) compared the experiences of different types of bereavement of 261 parents (171 mothers and 91 fathers). Of these, 69 couples were married for an average of 18 years, and there was a high number (n =102) of single mother participants. Follow-up interviews were conducted five years following the death on 67% of the original sample (115 mothers and 58 fathers). Parents ranged in age from 32 to 61 (M = 45 years, SD = 6.01), with a mean years of schooling of 13.8, and 65.4% of participants being employed. The majority (86%) of participants was Caucasian and cited a religious affiliation (75%). Participants who remained in the study were 2.5 years older on average at baseline than those who dropped out (44.6 vs. 47.4 years, t = -3.45, p < .001), participants who
remained in the study were also slightly better educated than those who dropped out of the study (13.3 years vs. 13.9 years of schooling, \( t = -2.05, p < .001 \)).

According to Murphy et al. (2003a), the deceased children’s demographic characteristics and causes of death were very similar for the initial and follow-up parent samples. The average age of the deceased child was 20.7 years and 68% were male. Children’s causes of death were accidents (57%), suicides (25%), homicides (10%), and undetermined (8%). Participants were recruited via mail four to six weeks following their children’s death. Data were collected at 4, 7, and 12 months post-death in small groups and by mail at 24 and 60 months post-death.

Murphy et al. (2003a) utilized two measures of parents psychological functioning, including the Brief Symptom Inventory (BSI; Derogatis, 1992) and the Traumatic Experiences Scale (TES; developed by the author,). The authors reported that they assessed the acceptance of the child’s death based on one scaled item inquiring about acceptance. Participants also completed the Marital Satisfaction subscale of the Dyadic Adjustment Scale (DAS; Spanier, 1976). Parents also responded to one open-ended item regarding the amount of time needed to adjust to the death of the child and completed a demographic measure, including gender, marital status, ethnicity, age, occupation, education, and religious preference.

Murphy et al. (2003a) utilized repeated measures ANOVAs for the outcome variables of mental distress, PTSD, acceptance, of death, and marital satisfaction. A statistically significant interaction was found between groups and time for acceptance of death \( (F(1, 171) = 2.94, p > .01) \). Acceptance of death for all three groups, meaning the number of individuals who reported having accepted the death of their child, increased
between four and 12 months post-death and continued to increase for parents in the suicide and homicide groups \(F (1, 171) = 11.69, p > .001\). By 60 months post-death, acceptance among parents in the homicide group dropped sharply, and those parents whose children had died by suicide had the highest acceptance scores at all points when compared to the other groups.

Murphy et al. (2003a) reported that a child’s death by suicide did not contribute to parent’s levels of distress and acceptance when compared with persons bereaved by accident or homicide. However, the findings did suggest that important changes in distress and acceptance occur over time. Parents who lost children tended to improve on all measures over time.

There are several significant limitations to Murphy et al.’s (2003a) study. The initial goal of the study was to test the intervention offered early in bereavement. It is unclear if the participants who responded to recruitment efforts created a self-selection bias. As such, it is important to approach the study results with caution, as the sample may not be representative of all parents bereaved by the death of their child. Information about the history of the family and how it may have influenced the loss of the child was also not collected. There was only a small percentage (25%) of participants who had lost a child to suicide, which may not have allowed for the full exploration of the experience of the suicide bereaved. Murphy et al.’s study also focused entirely on negative impacts of bereavement and ignored any positive growth that could be co-occurring with the negative effects.

In a similar study of loss of a child to suicide, Murphy, Tapper, Johnson, and Lohan (2003b) explored the experiences of parents bereaved by the death of their 12-28
year old child by accident, suicide, and homicide. Although not cited in either article, the data appears to come from the same data set as the previous study by Murphy et al. (2003a). Participants were recruited during a three-year period via official death records. Two-hundred and four families agreed to participate, including 171 mothers and 90 fathers. Within this group, there were a total of 69 married couples approached between six and 28 weeks following the death of their child. At the time of the study, participants’ ages ranged from 32 to 61 (mean age = 45, $SD = 6.01$). The sample was primarily Caucasian (86%), well educated (mean years of schooling = 13.8), and 65.4% were employed. Participants were interviewed five years after the original contact, and 173 parents (67%) of the original sample remained in the study.

Murphy et al.’s (2003b) study included several measures completed at four months post-death (baseline), 12 months post-death, 24-months post-death, and 60-months post-death. Measures completed included the Brief Symptom Inventory (BSI; Derogatis, 1992), which includes a subscale for depression. Participants also completed measures to trauma symptoms (the Traumatic Experiences Scale, developed by the author, no citation provided), an item that assessed the parent’s acceptance of their child’s death, self-esteem (Rosenberg Self-Esteem Scale; Rosenberg, 1989), a measure of self-efficacy (Lund, Caserta, Dimond, & Shaffer, 1989), a measure of coping (COPE; Carver, Scheier, & Weintraub, 1989), a measure of family functioning (Family Adaptability and Cohesion Evaluation Scales; Olson, 1986), and a measure of social support (Perceptions of Support Network Inventory; Oritt, Paul, & Behrman, 1985).

With regard to results, Murphy et al. (2003b) reported that, over the course of the five-year study, 13% ($n = 34$) of all participants expressed suicidal ideation. Twenty-four
of those reported suicidal ideation in the baseline (four months post-death). The parents that reported continuing suicidal ideation were few ($n = 4$), and only one parent reported suicidal ideation throughout the entire collection period. Murphy et al.’s (2003b) results suggested that parents whose children died by suicide did not have the highest rate of suicidal ideation as hypothesized, with ten (6.8%) parents whose children died by accident, five (19.2%) parents whose children died by homicide, and nine (14.3%) parents whose children died by suicide expressing suicidal ideation. However, the number of children who died by each of these types of death may have influenced these results, as fewer children died by homicide than by accident or suicide in the study. Contrary to predictions, parents did not differ significantly on the acceptance of their child’s death based on how their child died.

Murphy et al.’s (2003b) study has significant limitations. The participants of the study were primarily Caucasian and tended to be highly educated, so they may not have been representative of the overall population. In addition, Murphy et al. also reported their study findings in an unclear manner, making fully understanding the impact of their study very difficult. While the sample size of individuals who experienced the loss of a child was relatively large, the number of parents who lost children to each category varied significantly, making comparisons between the groups difficult. In addition, almost 20% of the individuals contacted to participate in the study did not respond or refused participation, possibly causing a self-selection bias and impacting the results of the study. In addition, it is unclear if some of the parents who dropped out of the study may have also been experiencing suicidal ideation or may have even engaged in suicidal behavior. Another limitation includes the lack of information that has been obtained about parents
prior to the loss of their child. It is possible that families in which suicide occurs have unique characteristics, which may include suicidal ideation or mental health issues on the part of the parents. Perhaps the greatest limitation is that suicidal ideation was assessed by the use of a single item on a single measure. Suicidal ideation can include many different types of thoughts or beliefs that may not have been accurately measured by this single item. Given the experience of parents who lose a child to suicide, it is further important to explore the experience of persons of other relationships losing someone to suicide.

In a study exploring the experience of adolescents and children bereaved by suicide, Cerel, Fristad, Weller, and Weller (1999) drew participants from a larger longitudinal Grief Research Study of childhood bereavement. The original study explored the experiences of 350 children bereaved by all types of parental death. Interviews were completed at one, six, 13, and 25 months post-parental death with the surviving parent present. Families were recruited through obituaries and contact with funeral homes. Of these 350 participants, 26 suicide-bereaved children from 15 families were studied. Half of the participants were female and were aged between five and 17 years old (mean age = 11.7 years, \(SD = 3.4\) years). Participants ranged from upper to lower class and 85% of the bereaved lost their father to suicide. These participants were compared with children and adolescents who were non-suicide bereaved \((n = 332)\), which displayed no significant demographic differences from the suicide bereaved children.

Participants in Cerel et al.’s (1999) research were studied from a variety of viewpoints, including self-report, parental-report, teacher-report, and physician-report. For each participant, measures of grief (Grief Interview—Child and Parent forms, Weller
et al., 1984), psychopathology (Diagnostic Interview For Children and Adolescents-Revised, Reich & Welner, 1988; Diagnostic Interview for Depression in Children and Adolescents, Weller & Weller, 1979a; and the Children’s Depression Inventory, Kovacs, 1992), and psychosocial functioning (Piers-Harris Self-Concept Scale, Piers & Harris, 1979; Child Behavior Checklist-Teacher’s Report Form, Achenbach & Edelbrock, 1980; Conners Revised Teacher Rating Scale, Conners, 1989; and the Heath/Sickness Questionnaire, School and Physician Rating Forms, Fristad et al., 1986) were completed by various sources.

Cerel et al. (1999) reported that feelings of sadness, anger, acceptance, anxiety, and relief were common among all bereaved children. These emotions were reported to decrease over time, although relief and jealousy remained relatively constant throughout the two years after parental death for both groups. It was hypothesized that guilt, anger, shame, and acceptance would be present in different levels when the two groups were compared. Those children who were bereaved by suicide reported significantly more anger than children bereaved by other types of death (45% vs. 22%, $\chi^2 (1) = 5.95, p < .05$) at six months post-death. More suicide bereaved parents reported their children experiencing shame than non-suicide bereaved parents at six months post-death (14% vs. 7%, $\chi^2 (1) = 8.57, p < .005$) and at the one-year anniversary (22% vs. 1%, $\chi^2 (1) = 30.80, p < .001$) after the death. However, fewer suicide bereaved parents reported their child accepting the death at six months when compared with non-suicide bereaved parents (43% vs. 77%, $\chi^2 (1) = 11.64, p < .001$) and at one-year post-death (56% vs. 79%, $\chi^2 (1) = 4.16, p < .05$). Suicide bereaved children were more likely to experience anger, as evidenced by parental report, immediately (74% vs. 38%, $\chi^2 (1) = 9.56, p < .005$) and one
month post-death (68% vs. 42%, $\chi^2 (1) = 4.94, p < .05$). Fewer suicide bereaved children reported relief after the death of their loved one than non-suicide bereaved children (17% vs. 41%, $\chi^2 (1) = 4.32, p < .05$). However, suicide bereaved and non-suicide bereaved children reported similar rates of sadness and jealousy, which decreased over time.

Cerel et al. (1999) created a five-point “Trauma of Death” scale that evaluated how traumatic the event of the death was. On a 1-5 scale, which indicated at five that the death was very traumatic, (e.g., the child was the first person on the scene of the suicide) to one, the death being the least traumatic (e.g., the child did not see the person complete suicide, was not aware of the plans to complete suicide, and did not see the body until the visitation or funeral). Most suicide bereaved children had no contact with the deceased at the time of death or immediately thereafter, and the average Trauma of Death rating was 1.8 ($SD = 1.3$). More than half of children received a score of one (54%), 25% received a score of two, no participants received a score of three, 13% received a score of four, and six percent received a score of five.

In terms of direct psychopathology results, Cerel et al. (1999) reported that there were no differences between the suicide bereaved and non-suicide bereaved individuals on any measure of suicidality, which was in direct contrast to their hypothesis. However, suicide bereaved children experienced significantly more depressive episodes in their lifetime (19% vs. 6%, $\chi^2 (1) = 4.29, p < .05$) and six months after the death ($t = 2.44, p < .05$). In terms of depressive symptoms that may not qualify for a diagnosis of major depressive episode, suicide bereaved children reported more depression symptoms in their lifetime ($t = 2.52, p < .05$) and six-months post-death ($t = 2.44, p < .05$) than non-suicide bereaved children. Suicide bereaved children also reported more overall
impairment in their lifetime and in the first year after the death in terms of behavioral issues, anxiety, mood disorders, and other types of disorders ($t = 2.62$, $p < .05$ for lifetime; $t = 2.41$, $p < .05$ first year).

According to Cerel et al. (1999), children were also diagnosed by team consensus of psychiatric disorders based on parental responses to measures. Suicide bereaved children were more likely than non-suicide bereaved children to be diagnosed with oppositional defiant disorder ($27.8\%$ vs. $8.5\%$, $\chi^2 (1) = 4.48$, $p < .05$), conduct disorder ($11.1\%$ vs. $0.7\%$, $\chi^2 (1) = 5.05$, $p < .05$), and major depressive disorder ($27.8\%$ vs. $8.5\%$; $\chi^2 (1) = 4.48$, $p < .05$). Suicide bereaved children were also more likely than non-suicide bereaved children to experience overanxious symptoms ($15.4\%$ vs. $3.2\%$; $\chi^2 (1) = 9.51$, $p < .05$).

With regard to psychosocial functioning, Cerel et al. (1999) reported that suicide bereaved children were more likely to have significantly more internalizing behaviors than non-suicide bereaved children ($t = 2.21$, $p < .05$). Further, teachers of each child (who completed measures of attention and social interaction) reported more problems in social interactions for suicide bereaved children than non-suicide bereaved children. Self-esteem (measured by the Piers-Harris total score) was also found to be lower in suicide bereaved children than non-suicide bereaved children ($t = 2.88$, $p < .05$).

Cerel et al. (1999) provide a study with an in-depth look of the negative impact suicide may have on children and adolescents. However, their focus solely on the negative sequelae of bereavement by suicide and their small sample size limits the usefulness of their study. In addition, given that the population was drawn from a small part of one state of the United States, it is unclear if these individuals are representative of
the broader population. Further, no information is available about the individuals who chose not to participate in the study. Since children appear to experience the same symptoms following the loss of a loved one to suicide, it is important to explore other familial relationships and how individuals in other relationships to the deceased are impacted by suicide.

Lindqvist, Johansson, and Karlsson (2008) explored the experience of family members bereaved by a teenaged family member’s suicide. Their qualitative study utilized a grounded theory-like model and unstructured interviews alongside quantitative data from official documents such as autopsy reports, police reports, and medical records. Prior to the interviews, the interviewers were aware of the ages, sex, and method of suicide. With the first six cases, recruitment began by telephoning a professional involved with investigating the suicide, however this was deemed unnecessary later and in all following recruitments, a letter was sent addressed to the parents of teenagers who died by suicide. The 13 individuals who died by suicide were aged 13-19. However, three families chose not to participate, so ten families bereaved by suicide were ultimately interviewed. Although the number of participants was not provided by the authors, they reported that in six cases, both biological parents were interviewed \( (n = 12) \), in two interviews a biological mother and step father were interviewed \( (n = 4) \), in two interviews only the biological mother or father was present \( (n = 2) \), and in five of the seven possible cases, siblings were present, although it is unclear how many siblings total were present. Therefore, it is impossible to conclude the total number of participants present for interviews.
According to Lindqvist et al. (2008), the mean interval between the suicide and the first interview in this study was 17 months (range 15-25 months). All families were interviewed in their homes and the mean duration of the interview was 2 ½ hours (range 1 ½ to 6 hours). All interviews began with a broad question, “Tell me about (the deceased)” and concluded with the questions “Do you want to tell me anything else we have not talked about?” and “What do you think of this interview?” Each interview was transcribed and reviewed with a psychologist. Interviews were then analyzed and resulted in three domains: the post suicidal reactions including the issue “why?”; the impact of the suicide on daily living; the families’ need of support after the suicide.

Lindqvist et al. (2008) reported post-suicidal reactions that included the search for “why?” which preoccupied most of the parents. This search was even more salient in the eight cases where the suicide had come unexpectedly, as most parents reported that their teenagers had disguised their suicidal ideation. Almost all parents expressed anger and feeling deceived, particularly since the perceived deception denied them the opportunity to provide parental support. They simultaneously expressed remorse for being angry with someone who was obviously in great pain. Coming to terms with the “why?” of the suicide was seemingly easier when suicide risk appeared more evident (n = 2). These families reported some relief, since they had been living in a state of suspense, although this relief was not easily admitted. Most families reported confusion, as their teenagers had pro-social lives, including being average or high achievers in school and informal leaders of their schools. However, all those lost to suicide had experienced some sort of problem (i.e., broken love affair, fear of pregnancy, difficulties with friends) that had decreased or ended just prior to the suicide, which often put the parents at ease. A
common remark parents made was that of “How could we have known?” Six of the teenagers left suicide notes that provided little comfort to the parents, including messages such as “I love you” and “Forgive me” and “Don’t be angry with me.” Two letters left instructions to pass personal belongings to siblings.

Lindqvist et al. (2008) also indicated that in addition to the post-suicide reactions, respondents also reported significant impact on their daily lives. Despite the fact that it was over a year following the suicide of their teenaged family member, families still reported significant struggles to move on. This was particularly true for the three families who had lost their only children. All families had returned to the routine activities of their daily lives with anguish and slowly reducing anxiety. No participants reported experiencing an entire day without thinking of the deceased. Some participants reported suicidal ideation for themselves, but rejected the idea based on the impact it would have on others. All families reported guilt, shame, and self-reproach that overwhelmed any concerns for what other people would think of them.

Following the suicide of their teenaged child, participants expressed an initial phase of shock, disbelief, and confusion that lasted for months (Lindqvist et al., 2008). Those individuals who found positive support from their family or friends immediately after the suicide expressed extreme gratefulness, as compared with others who found themselves subjected to the attention of professional helpers who approached the families. Most participants did not participate in counseling after the shock phase, and those that sought support often did so via clergy members. Participants also reported that their relationships with families and community members were dissatisfying and unsupportive.
According to Lindqvist et al. (2008), the most poignant issue that arose from the interviews was the search for reasons to explain the suicide of their teenager that would allow the bereaved to move on with their lives. The question “why?” eventually turned, according to Lindqvist et al., into the question “what for?”, which the authors determined was the attempt of the bereaved to see the suicide as meaningful in some way.

This exploratory study by Lindqvist et al. (2008) provided an initial look into the entire family’s perspective of the loss of a teenager to suicide. The study design is impossible to replicate due to the flexible method of data collection and the results are not intended to generalize to other populations. A more methodologically structured approach would have made the study more valid, but would not have provided a place for families to tell their stories. In addition, a more in-depth description of the participants (including mean ages and gender, educational level, psychiatric difficulties, etc.) would have provided greater understanding of how the characteristics of the participants may have impacted the interview responses. In general, a more detailed method would have made the publication of this study stronger.

Overall, the experience of losing a loved one to suicide is related to an increase in mental health issues. Studies of suicide loss in general has suggested increased rates of depression, anxiety, Post-Traumatic Stress Disorder, and questioning “why” the individual was lost to suicide that appears to occur across situations. However, mental health issues are not the only way that individuals bereaved by suicide experience negative impacts from their loss.
Physical Health Issues

One of the least-documented areas of negative sequelae in bereavement by suicide is that of physical health. Most studies touch only tangentially on the negative or positive effects of bereavement by suicide on physical health. However, even from these tangential mentions, it is clear that the stress of loss of a loved one to suicide can have significant negative impacts on an individual’s physical health. In the aforementioned Shepherd and Barraclough study (1976), parents reported on the changes in the health of their children. Eight of the 36 children experienced some ill-effects including disturbed sleep or behavior problems immediately after the suicide. Similarly, Saarinen et al. (1999) also reported that 23% of participants in their study reported somatic symptoms such as abdominal problems, loss of appetite, overeating, and sleep disturbances.

Rudestam (1977) interviewed family members bereaved by suicide on average 220 days after the person’s death. One interview was conducted for each of the 39 families who chose to participate within the 82 confirmed suicides during the study period. Each interview lasted two to three hours and were based on a set of structured inquiries that focused on identifying information about the bereaved and their family members, the immediate impact of the death and feelings, behavior, and expectations, current understanding of the bereaved’s role in the relationship with the decedent, the impact on other’s, long-range effects (i.e. changes in daily routine, etc), and solutions.

Rudestam (1977) reported that the mean age of the decedents in the study was 42.7, with a range from 12 to 79. There was one African American family who was interviewed for the study, but seven African American families were unable to be contacted. In the interviewed group, there were 21 male and 18 female relatives who died
by suicide. Rudestam reported that it was more difficult to find available and receptive survivors in the case of male suicides.

With regard to physical effects, 25 of the 39 respondents reported having family members experiencing physical illness during the six months preceding the death. Most of the illnesses mentioned were related to the nervous system and sense organs \((n = 8)\), or of the bones and muscles \((n = 9)\). Only a few \((n = 8)\) of the illness had begun since the suicide, and a similar frequency \((n = 9)\) of individuals experienced worsened physical illnesses. However, this does not include psychosomatic difficulties and other physical complaints expressed by family members. Within the 30 families, 11 cases of ulcers were reported, 13 cases of migraine headaches, 16 cases of hypertension, six cases of asthma, nine cases of colitis, 15 cases of physical exhaustion, and 28 other assorted problems. Of these, 24.5\% began after the loss of their loved one to suicide. At the time of the interview, 33\% of the disorders had improved or subsided, but 16.3\% had become worse during the six-month period. These suggest that there may be at least some impact on the physical health of individuals who are bereaved by suicide.

In addition to physical difficulties, those bereaved by suicide often have several behavioral issues that may arise that negatively impact their physical health. Rudestam (1977) reported that of the participants who were smokers \((n = 25)\), nine had increased their smoking after the loss of their loved one. Four respondents reported increased alcohol consumption, and several respondents \((n = 23)\) reported taking prescription medications, typically tranquilizers, following the death of their loved one. Twenty-seven respondents also reported sleeping difficulties following the loss of their loved one to suicide, and 19 of these were still experiencing sleep difficulty after six months. Some
participants also reported a loss of appetite shortly after the death ($n = 17$), which continued for several of the respondents ($n = 3$). On the other hand, seven respondents reported eating more than they did prior to the loss of their loved one.

Rudestam (1977) reported that there are several negative changes to physical health that can occur in those bereaved by suicide. In some cases, this was due to the development of new disorders or negative habits, and in some cases it was due to the worsening to symptoms.

There are a few limitations to Rudestam’s study. The smaller sample size limits how well this study can be generalized. In addition, the study does not have a control group or provide comparison information for basic health issues in the general population. In addition, Rudestam’s study focuses entirely on negative health results, although there may be benefits to one’s health and health habits that result from bereavement by suicide.

Although the idea that bereavement by suicide can cause negative impacts on the health of an individual has been suggested and explored peripherally, it is an idea that does not yet have extensive research support. However, initial studies indicate that loss of a loved one to suicide can cause negative effects such as sleeplessness, increased illnesses, and increased severity of diseases that existed prior to the suicide loss. In addition to the physical effects that suicide bereavement can lead to for an individual, it can also cause problems with social interactions.
Social Stigma and Support

Individuals who are bereaved by suicide often report that they have experienced difficulties with social interactions. This can take many forms, and has been mentioned to include inappropriate comments, distance from friends and family, and feeling abandoned and alone (Dunn & Morrish-Vinders, 1987). Few researchers have approached this issue and thus information about the experience of those bereaved by suicide in terms of social support is limited.

In one early study, Calhoun, Selby, and Gribble (1979) recruited participants from a Protestant Church in the Southeastern United States. One-hundred and twenty-seven individuals participated, and the sample was roughly half female (n = 66), and primarily aged 40-59 (40%). Each participant was provided with a newspaper account of a death, which was systematically varied by: whether the decedent was male or female, whether the cause of the suicide was internal (i.e. due to depression or some other internal factor) or external (i.e. due to an external factor or event, such as job loss or relationship difficulties), and whether the cause was recent or from the remote past. Participants were asked to read the article and rate the surviving family of the decedent on several items, which were designed to assess the reactions to surviving spouse and expected feeling of tension and embarrassment in dealing with the family.

According to Calhoun et al. (1979), MANOVAs were conducted on the five social acceptance items. Only one interaction was significant, with the sex of the respondent and the sex of the individual who died by suicide interacting to effect the expected tenseness (i.e. how tense/uncomfortable the individual expected the visit to be) in a visit to the surviving family (F = 9.96, p < .005). As a result of this significant interaction,
male and female respondents were examined separately. Male respondents reported they would be more relaxed with the bereaved family of a male suicide than with the family of a female suicide ($t = 2.1, p < .05$). Female respondents expected to be more relaxed with the bereaved family of a female suicide than a male suicide ($t = 2.37, p < .05$). In terms of main effects, males were more accepting of spouses bereaved by suicide than were female respondents ($F = 4.71, p < .04$). In all, Calhoun et al.’s (1987) study suggested that females would be slightly more rejecting than males, but that the sex of the person who died by suicide also influenced how comfortable individuals felt interacting with the bereaved family of an individual who died by suicide.

There are limitations to Calhoun et al.’s (1979) study. The homogenous sample does not reflect the average population, limiting the generalizibility of this study. In addition, limited information was gathered from participants and more complete information may have improved the utility of the study. For instance, participants may have been asked not only about the tenseness during a family visit, but also about how they felt about the family, ratings of their loving/caringness, etc. This was corrected in a future study.

Calhoun, Selby, and Faulstich (1980) briefly investigated the reactions of parents of a child who completed suicide when compared with reactions to parents who lost a child to natural causes. Participants were 119 adults ranging in age from 17 to 65 years, with 92% between the ages of 18 and 55 recruited from a suburban shopping mall. Four versions of a short newspaper article describing the death of a 10-year-old child were developed. The versions varied by whether the child was male or female and whether they died from a virus or a suicide by hanging. Participants were asked to rate on a 7-
point Likert scale how psychologically disturbed the child was, how psychologically disturbed each parent was before the child’s death, how well each of the parents would be liked by the respondent, attribution of blame to the parents for the child’s death, whether the newspaper should have reported the reason for the child’s death, how long each of the parents would remain very sad and depressed, how tense a visit with the family would be, and how difficult it would be to express sympathy to the family.

Calhoun et al. (1980) reported a significant multivariate main effect for how the child died ($F(12, 100) = 10.50$, $p < .001$), and subsequently conducted univariate analyses on each of the Likert-Scale items. When the death was a suicide, the child was viewed as having been more emotionally disturbed ($F (1, 111) = 111.77$, $p < .001$), the father was liked less ($F (1,111) = 6.91$, $p < .01$), and both the mother ($F (1,111) = 10.62$, $p < .002$) and father ($F (1, 111) = 14.06$, $p < .001$) were blamed more for the death of the child when compared with death by illness. Participants were more likely to feel that the newspaper should not have revealed the nature of the child’s death when the child died by suicide ($F (1, 111) = 8.13$, $p < .01$). These results support the contention that there is bias and social stigma associated with losing a child to suicide, particularly in terms of blaming and whether or not the father is liked.

Calhoun et al. (1980) provided a brief but informative study that examined the way in which those bereaved by suicide are viewed by society. However, their sample was limited, which limits the generalizability of the study overall. In addition, Calhoun et al. focused primarily on the negative effects of bereavement by suicide on social support.

Calhoun, Selby, and Abernathy (1984) also investigated social reactions to persons bereaved by suicide. Participants were recruited from undergraduate classes and
asked if they had known, within the previous three years, someone who had lost a loved one. The final group of participants included 23 females and 12 males, with a mean age of 20.5. These individuals were placed into groups based on the type of death their friend or family member had been bereaved by, which included suicide (n = 11), accident (n = 13), and natural causes (n = 11). Twenty-nine percent (n = 10) of the participants described the individual’s reactions to the death of a close friend, and 71% (n = 25) described persons reacting to the death of a family member.

Structured interviews were conducted to examine variables identified in previous research as being effected when different types of death are mourned (Calhoun et al., 1984). Results indicated that participants reacted to different types of survivors in varying ways. For example, the age of the decedent impacted how the individual was described ($F(2, 31) = 13.5, p < .001$), with accident victims comprising the youngest group ($M = 20.7$), followed by suicides ($M = 33.4$), and death by natural causes ($M = 54.0$). Participants reported that they felt that individuals who lost someone to different types of deaths (i.e. murder, accident, suicide, natural causes) would have differing levels of trouble coping with the loss ($F(3, 87) = 52.7, p < .01$). Natural causes was found to be the least difficult to cope with ($M = 4.1$), followed by accidents ($M = 5.8$), suicide ($M = 6.3$), and murder ($M = 6.4$), although the difference between suicide and murder were not significantly different. When respondents were asked what type of death they thought was more difficult to cope with, 91% (n = 10) of the persons describing loss due to suicide reported that suicide was the most difficult; 46% (n = 6) of the participants describing loss due to accidents, and none of the participants responding to a loss due to a natural cause respondents felt those types of death were more difficult than suicide.
According to Calhoun et al. (1984), respondents indicated they had the most difficult time providing sympathy at the funeral for those bereaved by suicide ($M = 5.2$), followed by those bereaved by natural causes ($M = 2.6$), then those bereaved by accidental death ($M = 2.2$; $F(2, 30) = 8.3, p < .01$). When asked to rate how uncomfortable they believed others were in talking to the surviving family at the funeral, those bereaved by suicide were ranged as the most uncomfortable ($M = 5.2$), followed by those bereaved by a death of natural causes ($M = 3.0$), and accident deaths ($M = 2.6$; $F(2, 26) = 4.4, p < .03$).

In short, the findings of Calhoun et al. (1984) suggest that individuals who are bereaved by suicide are deemed more difficult to approach and provide sympathy to than those who are bereaved by other types of death. This supports the idea that those who are bereaved by suicide struggle with being stigmatized by others and may lack the social support necessary to deal with the loss of their loved one to suicide.

Calhoun et al.’s (1984) study has some significant limitations. First, it studies only the perspective of volunteer undergraduate students, which is likely not representative of the general population. Second, the study focuses entirely on the negative impact of bereavement by suicide and other types of death causes. Finally, the study also focused on describing persons that they knew and may indicate why larger differences were not found among some types of deaths, as well as the lack of information on why individuals may have died.

Calhoun, Selby, and Walton (1985) investigated how individuals perceived a spouse bereaved by the death of their spouse to suicide. As such, Calhoun et al. examined the reactions of 120 participants (60 females and 60 males) to obituary notices that
described the death of a 45-year-old man or woman, who died by self-inflicted gunshot wound, leukemia, or two-car motor vehicle accident. The participants then rated the surviving spouse on a six-point rating scale on the following: how long psychological recovery of the surviving spouse would take, how psychologically disturbed the spouse would be six months after the death, how uncomfortable the respondent would be visiting with the surviving spouse at the funeral, whether it is appropriate to make further inquiries into the cause of death, whether it is better for the family to not invite friends to the funeral, the degree to which the surviving spouse is to blame for the death, the degree to which the surviving spouse may be ashamed of the cause of death, the likelihood that friends would go out of their way to be helpful to the surviving spouse, and whether were was anything the bereaved could have done to prevent the decedent’s death.

Calhoun et al. (1985) reported that a three-way (sex of surviving spouse X sex of respondent X type of death) multivariate analysis was conducted on the nine rating scales and main effects for the sex of the respondent ($F(9, 100) = 2.16, p < .04$) and for cause of death ($F(18, 202) = 5.75, p < .001$). Overall, males gave lower ratings ($M = 3.9$) than females ($M = 4.3$) on the item asking how long it would take the suffering spouse to recovery psychologically ($F(1, 108) = 5.5, p < .03$). Males also gave lower ratings ($M = 5.1$) than females ($M = 5.5$) on the item asking the likelihood that friends will go out of their way to help the surviving spouse ($F(1, 108) = 4.32, p < .02$). In short, when compared to males, females indicated it would take longer for the bereaved to recover, friends would be more helpful, and they were more likely to see the individual as having been able to prevent the death ($F(1, 108)= 5.67, p < .02$).
In terms of the cause of death, Calhoun et al. (1985) reported that respondents felt that a death by suicide ($M = 4.0$) would take the surviving spouse longer to recover from psychologically than accidents ($M = 3.4$), but not longer than leukemia ($M = 3.7; F(2, 108) = 2.90, p < .06$). Suicide was rated lower ($M = 2.8$) than accident ($M = 3.6$) but higher than leukemia ($M = 3.4$) on how uncomfortable the respondent would feel interacting with the surviving spouse ($F(2, 108) = 3.49, p < .04$), when lower ratings indicate more discomfort. Respondents also felt it was less appropriate to inquire further about the cause of death for suicide ($M = 1.9$) than for either accident ($M = 2.8$) or leukemia ($M = 2.6; F(2, 108) = 5.12, p < .01$). Suicide was also rated higher than both accident and leukemia on the degree to which the surviving spouse may have been to blame in some way for the death ($F(2, 108) = 30.54, p < .0001$), the degree to which the surviving spouse may be ashamed of the cause of death ($F(2, 108) = 75.05, p < .0001$) and the degree to which the respondents believed the surviving spouse could have done something that might have prevented the death ($F(2, 108) = 39.31, p < .0001$).

The results of this study by Calhoun et al. (1985) suggest that there are some commonalities between the perceptions of the family bereaved by the suicide of a child versus the bereavement of a spouse who lost their partner to suicide. Overall, respondents suggested that the loss of a spouse to suicide is perceived to take longer to recover from, that interactions with the surviving spouse are to be more uncomfortable, and that they may be responsible for the death more so than spouses bereaved by natural causes or accident.

Calhoun et al.’s study does have significant limitations. The sample size remains fairly small, which limits generalizability. The simple process in which participants rated
those bereaved by death was not previously evaluated and, while simple to conduct and understand, limits the rich information that could have been obtained by the study researchers. Finally, as with most studies in this area, it focused entirely on the negative aspects of social interactions as a result of deaths.

In an early study of those bereaved by suicide, Dunn and Morrish-Vinders (1987) constructed an in-depth interviews following a set of pilot interviews. The authors used this interview to explore the experience of 24 individuals bereaved by suicide. All participants had lost loved ones to suicide within the previous five years. The majority of participants were female \( (n = 17) \) and had lost spouses \( (n = 7) \), parents \( (n = 7) \), children \( (n = 2) \), or siblings \( (n = 8) \) to suicide. Participants were primarily over thirty years of age and were “relatively well-educated” \( (p. 178) \). Interviews with the participants lasted approximately one and one-half hours and were conducted by the authors after being recruited from a suicide crisis intervention service \( (n = 13) \), flyers \( (n = 9) \), and through personal referrals \( (n = 2) \).

Participants were asked 36 questions covering background information, participants’ social relationships, and the participant’s relationship to the world. Dunn and Morrish-Vinders (1987) reported that participants expressed feeling overwhelmed by their initial reactions to the suicide of their loved ones, reporting shock, disbelief, anger, and fear as initial responses to their loss. Dunn and Morrish-Vinders noted that participants were very eager to be open and discuss their experience in great detail and hypothesized that this was due to the emotional trauma they experienced and the lack of outlets for them to ventilate the emotions and experiences of bereavement by suicide.
Dunn and Morrish-Vinders (1987) concluded that the psychological situation of one who is bereaved by suicide is an intense and emotional experience due to three major themes. First, the suicide bereaved reported feeling “utterly powerless” as a result of the loss of their loved one. Dunn and Morrish-Vinders suggested that this was a result of the unanticipated nature of the death is associated with a feeling of lack of control, which results in participants feeling helpless. Second, the authors hypothesized that suicide is seen by the bereaved as a “profound rejection and punishment” in which the bereaved is “precipitously abandoned” by a loved one (p. 182). Participants reported during interviews that they often felt responsible for the death and often experienced significant grief and guilt. Third, the authors reported that the inability to find clear answers for why the suicide occurred often leading to a feeling of uncertainty that may never lead to a sense of resolution. Dunn and Morrish-Vinders reported that these experiences together lead to “an often tortured search for an explanation of the event” (p. 182).

In terms of social support, Dunn and Morrish-Vinders (1987) explored the social situation of those bereaved by suicide. Respondents reported feeling an extreme lack of social support, particularly during the early stages of bereavement, although they reported receiving some kind of support from others, generally from close friends. However, many respondents also reported a distancing by acquaintances, colleagues, and others less personally involved with the bereaved. Three-fourths of participants reported that their relationships with others changed significantly more often in friendships than family relationships. They also reported that some individuals who were unwilling or unable to cope with the intense grief in the bereaved’s life disappeared completely, but those that stayed remained emotionally close with the survivor and may have even become closer.
Even families reported some disruption, with family members distancing themselves and only a few individuals reported receiving support from family members. Most commonly, a lack of communication was found between family members.

According to Dunn and Morrish-Vinders (1987), participants felt that the lack of support by others was only a small part of their feelings of social difficulty. However, this was also combined with the struggles of the bereaved themselves of being open and honest about their emotions about their loss. Two-thirds of participants reported inappropriate behavior by others, including insensitive or inappropriate remarks or silence from others, denying the suicide had happened, or resisting talking about the subject entirely. Thus, losing a loved one to suicide can lead to impaired interactions with others both due to the functioning of the bereaved and others’ difficulties interacting. Nearly half of respondents reported that their responses to how other’s treated them played a role in the social difficulties they experienced. Many individuals expressed anger or disgust that others avoided them. Some participants also indicated that this experience of anger or disgust then further pushed others away. When asked how others could have responded better, three-fourths of participants reported that they would have liked people to be more responsive to their difficulties.

The issue of social stigma was also explored by the authors (Dunn & Morrish-Vinders, 1987). The topic of suicide is often considered taboo and it is emotionally more complicated than most other types of death. The stigma often leads those bereaved by suicide to avoid asking for help with their grief. Along with the experience of stigma comes a sense of not knowing how to manage the lack of social protocols associated with a suicide death and fear of others’ reactions when they learn of the suicide. Some
participants reported attempting to communicate their needs to others, only to be avoided.
Four participants reported their relationships had decreased in quality since the suicide,
and four participants reported difficulty feeling close to others as a result of the suicide.

Overall, Dunn and Morrish-Vinders’ (1987) in-depth interviews with persons
bereaved by suicide was an excellent exploration of the experience of those bereaved by
suicide. Given the small sample size and limited diversity of the sample, however the
results of this study are quite limited. Dunn and Morrish-Vinders also acknowledge that
their study provided many questions for further exploration, including more direct
information about the experience of the bereaved in terms of social stigma.

In order to explore the experiences and perceptions of those bereaved by suicide
and their experiences of social support, Wagner and Calhoun (1991) utilized two groups.
The first group, those bereaved by suicide, consisted of 12 individuals (six males, mean
age 43; six females, mean age 38; all Caucasian). One survivor was dropped from the
study because she did not complete all the materials and did not respond to the follow-up
phone calls. Of these 12 survivors, two were active in support groups at the time of the
study, and four had been previously active. The individuals had been bereaved an average
of 3.2 years (range four months to six years). The second group was ten individuals (four
males, mean age 53; 6 females, mean age 38; all Caucasian) whom the individuals in the
bereaved group listed as members of their social support networks at the time of their
loved one’s death and agreed to participate. One network member was contact for each
survivor. Two individuals did not provide adequate information to find their support
individuals.
Wagner and Calhoun (1991) reported that both groups completed four scales that included the Social Support Questionnaire, short form (SSQ; Sarason, Sarason, Shearin, & Pierce, 1987), the Support Gestures Questionnaire (SGQ), the Frequency of Supportive Activities Questionnaire (FSA), and a Perceived Recovery Scale (PRS). Both groups also completed an interview, and for half of the participants the interview was conducted first and then completed the questionnaires and for the other half, they completed the questionnaires first and then participated in the interview. T-tests were conducted to explore significant differences between the groups, and no significant differences were found on any measure as a function of order.

Wagner and Calhoun (1991) also reported the interview data. All survivors reported receiving what they considered helpful support from individuals in their social support network, and seven of the bereaved reported seeking “outside” help. Individuals bereaved by suicide felt that their support networks provided support as best they could, but that it was the support from others bereaved by suicide that was the most useful. Eleven of the bereaved reported receiving what could be considered “negative” reactions from others (inadequate, inappropriate, or hurtful) from some of their support network. They reported being aware that others were uncomfortable with the topic of suicide. Bereaved individuals reported that others anticipated that they would require less support from their support network in an unrealistically short amount of time.

Wagner and Calhoun (1991) also reported that, according to those in the bereaved's support network, the bereaved received some kind of positive support from those in their support network. Some support persons (n = 5) also noted some negative responses, including “pulling away” from the bereaved, and even noted how
uncomfortable some people seemed to be with the idea of suicide. All support people mentioned trying to be a good listener for the bereaved.

When Wagner and Calhoun (1991) compared the qualitative responses between the bereaved and the support people, it was indicated that those who were bereaved felt more pressure to return to “normal” than the support people felt was present. In addition, while the support participants felt that adequate support was provided to the bereaved, the bereaved often felt that the support provided was less than satisfactory, stating often that someone who had not lost someone to suicide could not fully understand their situation.

There are several significant limitations to Wagner and Calhoun’s (1991) study. One limitation is that the sample was small and not representative of the general population of suicide bereaved individuals and network members. It was a small, homogeneous sample. In addition, the small sample size may have contributed to or caused the lack of quantitative differences in measures.

Overall, it is clear that the experience of persons bereaved by suicide includes effects on their social support, which may be in the form of stigma. Often, the bereaved by suicide experience social stigma, lack of support, and even harmful statements and actions by those who are intended to support them. While the differences in social support and social stigma seem to vary greatly depending on many variables, one type of impact of losing a loved one to suicide appears to be almost universal: making meaning of the experience of loss to suicide.
Suicide Bereavement and the Possibility for Posttraumatic Growth

Researchers have begun to explore the possibility of growth from bereavement by suicide. However, the few studies that evaluate the possibility of growth do not do so from a strong theoretical background. In addition, studies in this area tend to have smaller sample sizes. Again, this research is fairly recent when compared with the overall research of suicide bereavement, which is itself relatively young.

For example, Fielden (2003) recruited six participants from two public health agencies in New Zealand. Participants were five parents and one sister that were bereaved by the suicide of a son or brother who was under 30 years of age at the time of their death, and had died between two and nine years prior to the study. Fielden conducted in-depth interviews ranging from one to four hours each. The interview began with an open-ended question and included several other predetermined questions to continue the dialogue, intended to allow and encourage participants to express themselves openly and in their own words.

The interviews were then analyzed with a Hermeneutic phenomenological analysis that focuses on the content and process of the unstructured interviews (Fielden, 2003). The interviews were then interpreted and themes were identified and evaluated for trustworthiness. Overall, Fielden identified five paradigm cases from the interviews conducted. First, participants spoke of the “sense of terror and internal chaos” (p. 76) of realizing their loved one had completed suicide, particularly for those who found the body of their loved one. Second, the bereaved spoke of experiencing the grief of losing their loved one that was so intense they were disabled by the feelings of shock and numbness, so intense that they barely managed to survive from day to day. After the
initial shock, the bereaved reported experiences of deep pain, guilt, and fear can be paralyzing for the families. In addition, blame and stigma also became apparent as the time since the loss wore on. Third, the bereaved reported that in the early days after the suicide, managing their grief focused on preparing for their loved one’s funeral, although telling others how their loved one died was a great source of stress. Another theme included taking space and time to process events and feelings up to several months after their loved one’s suicide. Fourth, the bereaved described milestones that signaled that they could and should move on. This was most common among individuals who had been bereaved the longest. For instance, one milestone was no longer feeling their loved one’s presence in the house.

Finally, fifth and arguably most importantly, Fielden (2003) reported that there was a strong need for the bereaved to make meaning of the loss of their loved one to suicide. Respondents reported trying to find a reason or a plausible explanation for the suicide, which enabled them to begin moving on with their grief. The bereaved spoke of their need to answer questions, such as “Why did he complete suicide?” and “Why did I not know something was wrong?” The intense questions and search was directed at finding answers as to what it was in the deceased’s life that caused him to end his own life. In this search, meaning was often found in obvious clues, such as suicide notes or written passages, although these sometimes provided as many questions as answers. They also described reflecting on their relationship with their loved one if the other clues did not provide adequate answers. This frequently led the bereaved to believe that their loved one’s sensitive nature might have been an indicator as to why they completed suicide.
Fielden (2003) is a unique exploratory article into the experience of the suicide bereaved. These results are based on the experience of six individuals bereaved by suicide of males, which limits whether the findings are likely to have meaning in other situations. In addition, the small sample size, while typical of phenomenological research, could have been increased to provide different individuals with different types of relationships and different backgrounds to the deceased.

In a study of adults bereaved by suicide, Begley and Quayle (2007) recruited participants in a voluntary support network for individuals bereaved by suicide. Individuals who had contacted or who were supported by the program were provided the information to participate in the study. Eight adult participants, three males and five females, were recruited. In-depth, face-to-face interviews were completed in two to three hours in the bereaved person’s home. Each interview was guided by a discussion guide that included demographic information and information about the story of the deceased (personality, mental and physical health, etc.), the individual’s relationship with the deceased, and how the death had impacted them. Data were analyzed in a phenomenological analysis to develop themes.

Four major themes arose from Begley and Quayle’s (2007) study. The first theme, “Controlling the impact of the suicide,” included attempts to control the impact of the suicide by avoiding sharing feelings, being protective and watchful of other family members, being fearful of other suicides, changes in communication patterns, and avoiding former social activities. The second theme, “Social Uneasiness,” included needing support but feeling let down by friends and community, feeling stigmatized by the suicide and upset at other’s responses to the suicide. The third theme indicated by the
bereaved, “Making sense of the suicide,” included searching for reasons for why the suicide happened, questioning the prior relationship with the deceased, and feelings of guilt and blame as a way to make sense of the suicide. Finally, Begley and Quayle describe a major theme of “Purposefulness,” which included understanding how the death changed how the bereaved view life. The bereaved reported a feeling that their life is totally changed and that the deceased is now helping them. The bereaved also described a life where they engaged in new activities and focused on helping others. Participants stated that once they began to seek meaning in the death of their loved one, they experienced more social and interpersonal difficulty.

Begley and Quayle’s (2007) study provided additional information on the experience of those bereaved by suicide, although with some limitations. Similar to Fielden (2003), Begley and Quayle’s sample size was limited, as is common in this type of study. Second, the study included individuals who had at least some contact with a suicide bereavement support network, which may have impacted the overall results. However, this study supports the idea that meaning making is an important part of suicide bereavement.

Murphy, Johnson, and Lohan (2003) explored finding meaning in a child’s death utilizing parents bereaved by the death of their child. This study appeared to utilize the same dataset as Murphy et al. (2003a) and Murphy et al. (2003b), although approached in a very different manner. The demographic information of participants is described earlier (see page 46). Participants \( n = 173 \) completed measures of mental distress, PTSD, acceptance, marital satisfaction, and physical health. Finding meaning was conceptualized as a two-part process which includes “sense-making” and “meaning as
significance” and was based on Janoff-Bulman and Frantz (1997). “Meaning as significance” refers to making sense of something or attempting to fit it within a system of rules or theories. “Meaning as significance” refers to whether something is of worth or of value. Variables that were used to predict meaning were the children’s causes of death, parent’s perceptions of preventability, self-esteem, use of religious coping, and support group attendance. Outcome variables for this study include overall mental distress, symptoms of PTSD, acceptance of the deceased child’s death, marital satisfaction, and physical health status. Murphy et al. (2003c) utilized regression analysis to predict meaning and no meaning.

At the end of the first year of bereavement, Murphy et al. (2003c) reported that only 12% of parents described having “found meaning,” as defined by a rating taken from an open-ended question about whether participants had found meaning, or meaning as significance. No additional parents reported finding meaning as significance by the end of the second year. However, by the time the five-year data collection period ended, over half (57%) of parents reported finding meaning as significance. It is important to note that few parents found meaning quickly after the death of their child, supporting the idea by Tedeschi and Calhoun (1995) that the process of PTG takes time.

Murphy et al. (2003c) reported that parents described gaining new insights into the meaning of life, reordering priorities, feeling that the value of their deceased child increased, and even having improved existential beliefs. Parents described being more altruistic, learning how strong they are in the face of adversity, and having perceived benefits. These themes that arose out of participant’s comments fit nicely into Tedeschi and Calhoun’s (1995) areas of post-traumatic growth (i.e. having differed existential
beliefs is similar to Tedeschi & Calhoun’s spiritual growth). Murphy et al. extended their exploration to compare individuals who found meaning versus those who did not. Participants who reported finding meaning had less mental distress ($t = -2.01, p < .05$), more marital satisfaction ($t = 2.08, p < .05$), and improved physical health ($t = 2.46, p < .01$).

The study by Murphy et al. (2003c) provides a look at the experience of loss of a child through a violent death. Although reportedly grounded in theory, the study clearly did not begin as taking the questions from a theory and moving forward, but rather appeared to attempt to retrofit a theory onto the provided data. In addition, their sample was relatively limited in terms of diversity and thus lacks generalizability.

In a very recent study, Feigelman, Jordan, and Gorman (2009) explored personal growth following suicide loss. However, Fiegelman et al. mention the theory of posttraumatic growth only in passing and do not ground the study in any other type of theoretical background. Feigelman et al. utilized a cross-sectional design and self-report measures to survey individuals who were involved with support groups across the country. Researchers reported participants ($N = 540$) completed two measures of grief, a scale measuring the impact of a particular event, a measure of personal psychological problems, and background data measures. Participants had experienced loss to suicide more frequently (86%) than any other type of loss (accidental deaths, natural deaths, homicide deaths, and ambiguous deaths). Feigelman et al. reported that all measures were correlated with one another, except the measure of suicide attempts and time since the loss. Results indicated that personal growth was inversely related to suicidality, grief difficulties, and mental health difficulties, but positively related to time since loss. In
short, the less individuals experienced suicidality, struggles with grief, and mental health problems, the more often they reported personal growth. According to Feigelman et al., mental health problems were positively associated with grief difficulties and suicidality.

Feigelman et al. (2009) reported concern that personal growth was simply “a reflection of a lack of grief difficulties or mental health problems,” (p. 189) and thus created a multiple regression equation with the frequency of suicidal thoughts as the dependent variable and grief difficulties, mental health problems, and personal growth as independent variables. The model explained 38% of the variance in suicidal thinking. The authors reported that removing personal growth from this equation dropped the percentage of variance accounted for by 4%, a statistically significant drop in explained variance.

Feigelman et al. (2009) also suggested that, after a slight drop in personal growth during the first year after loss, personal growth scores rise as the years post-loss increase. Mental health problems, however, spike slightly after the first year and decline as time passes. Feigelman et al. also reported than nearly two-thirds of parents who had lost children to suicide five or more years prior to their participation in the study had personal growth scores above the sample mean.

While Fiegelman et al.’s (2009) study provides an initial foray into the domain of personal growth—or positive results—from suicide bereavement, there are several limitations. According to the authors, the vast majority of respondents were involved in support groups. It is therefore difficult to ascertain if individuals who are not currently involved in such support would have the same or similar experiences. Fiegelman et al.’s study is also not grounded in theory. Utilizing a strong theory not only provides a stable
foundation, but allows for the use of stable and well-constructed measures, a problem
Fiegelman et al. themselves cited as endemic to their study.

Overall, research into the area of positive growth after suicide loss has only just
begun in the last decade. The studies in this area tend to contain the same faults as studies
of suicide bereavement in general, including a lack of theory-driven exploration, a
tendency to have limited sample sizes, and limited heterogeneity in samples, which
reduces the generalizability of the studies. However, these initial explorations make it
clear that finding meaning—and thus, growth—is not only possible but may be beneficial
to individuals who experience the loss of a loved one to suicide.

Summary and Hypotheses

The reviewed research clearly indicates that persons who are bereaved by the loss
of a loved one to suicide experience negative sequale as a result that may include grief
(e.g. Bailey, Kral, & Dunham, 1999), mental health issues (e.g. Brent et al., 1993),
negative physical health (e.g. Calhoun, Selby, & Selby, 1982) and social stigma (e.g.
Wagner & Calhoun, 1991). However, as a result from the experience of suicide loss,
individuals can experience a compelling search for meaning subsequent to the death of
their loved one as well as growth in some areas (Dunn & Morrish-Vinders, 1987).

Tedeschi and Calhoun’s (1995) model of Post-Traumatic Growth (PTG) suggests
that individuals who experience a traumatic event can turn that negative event into a
positive outcome. Their model suggests that persons can grow in three broad areas,
including a changed sense of self, changed relationships, and a changed philosophy of
life. These outcomes can look very different across individuals, and do not necessarily exist in every individual who experiences a trauma.

In addition to the negative outcomes that persons experience in suicide bereavement, they may also experience an intense search for meaning. This can often lead to what the individuals themselves describe as positive outcomes, including increased value in life, new opportunities, and feeling more capable as a person.

No currently published studies have utilized the model of Post-Traumatic Growth to explore empirically the experiences of those who are bereaved by suicide. In addition, previous studies in this area have tended to be exploratory in nature and have used limited sample sizes. As such, the present study will explore the experience of individuals bereaved by suicide via the theoretical framework of PTG. The present study will also investigate both negative and positive results of suicide bereavement, including both negative outcomes (i.e. suicidal ideation, depression, PTSD) as well as growth (i.e. changed sense of self, changed relationships with others). The hypotheses for the present research are as follows:

1. Consistent with Tedeschi and Calhoun’s (1995) theory of Post-Traumatic growth, positive growth following a traumatic experience requires ample time to process the traumatic event itself. Specifically: Persons whose suicide loss is more recent will report less growth than those whose suicide loss occurred less recently.

2. While not explicitly addressed by Tedeschi and Calhoun (1995), Solomon and Dekel’s (2007) exploration of the relationship between negative symptoms and posttraumatic growth was a logical extension of their theory. Given that Solomon and Dekel found a curvilinear relationship between the posttraumatic growth and the negative symptoms, we anticipate a similar result to be true for the suicide bereaved. Specifically: Individuals with low or
high levels of negative symptoms will endorse lower levels of post-traumatic growth than those with moderate levels of distress.

3. Tedeschi and Calhoun (1995) argued that posttraumatic growth could not occur without some level of distress. Logically, if one is emotionally close to an individual who dies by suicide, it is likely that the bereaved will experience some level of distress. Without that emotional closeness, growth is less likely to occur. As such, given Mitchell et al.’s (2009) study results suggesting that kinship impacts how much grief an individual experiences following loss by suicide, it is anticipated that the reported emotional closeness to the deceased will impact the level of distress and posttraumatic growth. Specifically:

a. Those who report strong emotional ties to the deceased will report higher levels of distress than those who report less emotional closeness.
b. Those who report strong emotional ties to the deceased will report higher levels of posttraumatic growth than those who report less emotional closeness.

4. One area in which Tedeschi and Calhoun’s (1995) theory anticipates growth following a trauma is that of Changed Relationship with Others. Consistent with theory and Dunn and Morrish-Vinders (1987), whose study suggested that individuals who lost a loved one to suicide found closer social relationships, it is anticipated that persons who lost a loved one to suicide will report an impact on their relationships with others. Specifically: It is anticipated that one of the most-reported areas of growth for the suicide bereaved will be that of changed relationships with others.

5. Consistent with Tedeschi and Calhoun’s (1995) theory of Posttraumatic Growth which states that distress decreases as the time since the traumatic event increases, it is anticipated that as times since the loss by suicide increases, the level of overall distress will decrease. Specifically: It is anticipated that those who have had longer since their suicide loss will report less overall distress.
CHAPTER III
METHODOLOGY

The present chapter describes the method that was utilized to explore the research questions related to the positive and negative sequelae of bereavement by suicide. Specifically, the chapter discusses research procedures and measurement instruments. The chapter concludes with a restatement of the hypotheses and a description of the data analysis.

Procedures

The present study utilized a non-experimental survey method with convenience sampling. Participants for the current study were recruited via electronic communication, such as e-mail, social networking sites (e.g. Facebook®), and forums related to the suicide bereaved. Specifically, the researcher posted an invitation to participate on Facebook® and encouraged individuals to pass along the link to others they knew who had lost someone to suicide. In addition, the message was posted on two forums for individuals who had lost someone to suicide: the Suicide Grief Forum (www.suicidegrief.com) and the Suicide Survivors forum (forum.suicidesurvivors.com). In addition, two individuals who are very active within the Suicide Bereaved community of the American Association of Suicidology agreed to publicize the study using the IRB-
approved invitation to participate in research. One did so via e-mail and the other via her own Facebook® pages.

Participants

Sample size for the current study was determined based upon statistical tests of the correlation coefficients at $p \leq .05$ as sample size requirements for these tests are larger than for the regression analyses. Employing an effect size of $r = .20$ (midway between a small and medium effect size, Cohen, 1988), and with power set at .80, requires a sample size of 153. Participants in the present study exceeded this minimum and included 325 individuals who successfully completed the measures. The sample was comprised of mostly females ($n = 285$, 88%; males $n = 40$, 12%) with an average age of 42.78 years (SD = 11.72). A full description of participant demographic information is included in Chapter IV.

Participants were directed to an online survey site where they read an informed consent (Appendix A) that described the risks and benefits of participation in the present study as well as the purpose of the study and the confidential nature of the data collected. The informed consent form also included an estimate of 25 minutes for completion of the study measures, which varied based on the speed of the participant’s internet access.

Following informed consent, participants completed the measures described below. Upon completion of the measures, participants were provided with contact information for several national suicide and crisis hotlines and support groups for individuals bereaved by suicide, should the study have caused undue distress (Appendix B).
Measures

_Demographic information_. Developed for the current study, the demographic information collected for the present study includes age, gender, race, marital status, educational level, and time since the death of their loved one by suicide. It also included relationship to the person(s) lost by suicide, and whether the participant has sought a) professional help (i.e. individual or group counseling lead by a professional) or b) attendance at a lay-person-lead support group. Participants were also asked to describe any professional help or support group experience (Appendix C).

_The Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996; See Appendix D)._ The PTGI was used to assess “the extent to which survivors of traumatic events perceive personal benefits, including changes in perceptions of self, relationships with others, and philosophy of life, accruing from their attempts to cope with trauma and its aftermath” (Tedeschi & Calhoun, p. 458). The PTGI consists of 21 items responded to on a six-point Likert scale ranging from “I did not experience this changes as a result of my crisis (1)” to “I experienced this change to a very great degree as a result of my crisis (5)”. Total scores on the PTGI range from 21 to 126 and is obtained by summing together the responses on individual items.

The PTGI consists of five subscales of unequal lengths and were identified by Tedeschi and Calhoun (1996) in the original validation study. The subscales are as follows: Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of life. According to the authors, Relating to Others (7 items) measures the
extent to which an individual’s ability to relate to others has changed as a result of coping with a trauma. Scores on the Relating to Others subscale range from seven to 42, and a sample item is “Knowing that I can count on people in times of trouble” (Tedeschi & Calhoun). The New Possibilities scale is comprised of five items, and scores on this scale can range from five to 30. A sample item from the New Possibilities scale is “I developed new interests” and the scale is designed to measure the degree to which the individual has encountered new opportunities, interests, or paths as a result of coping with their trauma. The Personal Strength scale is designed to measure the degree to which the individual experiences himself or herself as stronger as a result of coping with their trauma. This subscale consists of four items with scores ranging from four to 24. An example of an item found on the Personal Strength scale is “I discovered that I’m stronger than I thought I was.” The Spiritual Change scale is designed to measure the degree to which the individual has experienced an increase in spirituality or religiosity as a result of their trauma. The Spiritual Change factor consists of two items, and the scores range from two to 12. A sample item from this scale is “I have a stronger religious faith.” Finally, the Appreciation of Life scale is designed to measure the degree to which an individual experiences an increase in how much they value life. The scale includes three items and scores on the scale range from three to 18. A sample item from this scale is “My priorities about what is important in life.”

In their validation study, Tedeschi and Calhoun (1996) administered the PTGI to 604 undergraduate students and utilized a principal components analysis with varimax rotation. Results indicated that a five-component model best fit the data and accounted for 62% of the variance in the data. Internal consistency for the PTGI total score was
reported as .90. The individual components also exhibited acceptable internal consistency, with alphas reported at .67 for Appreciation of Life, .72 for Personal Strength, .84 for New Possibilities, .85 for Spiritual Change, and .85 for Relating to Other, according to Tedeschi and Calhoun.

There has been some debate over whether Tedeschi and Calhoun’s (1996) five-component model is the best model for the PTGI. For instance, Anderson and Lopez-Baez (2008) suggested that a five-, three-, two-, or one-factor model all adequately fit the PTGI in their 351-participant sample when exploratory factor analyses were conducted. However, other researchers have found the PTGI to conform to the five-component model indicated in Tedeschi and Calhoun. For instance, Linley, Andrews, and Joseph (2007) explored the characteristics of the PTGI in a sample of 372 participants pooled together from a college student sample and members of the British general population. Linley et al. examined the data via confirmatory factor analysis and tested a three-factor correlated model and a correlated five factor model. Using numerous fit indices, Linley et al. determined that the five-factor model was the best fit to the data (Goodness of Fit Index = .95, Comparative Fit Index = .92, and Root Mean Square Error of Approximation = .096). Internal consistency estimates for the Linley et al. data mirrored those of Tedeschi and Calhoun (1996), with the total score being $\alpha = .92$, and alphas for the scale scores as follows: .88 for Relating to Others, .85 for New Possibilities, .80 for Personal Strength, .79 for Spiritual Change, and .79 for Appreciation for Life.

Tedeschi and Calhoun (1996) also evaluated the concurrent and discriminant validity of the PTGI by administering other measures alongside the PTGI, including the NEO Personality Inventory (NEO-PI; Costa & McCrae, 1995), to portions of their larger
validation sample \((n = 235)\). Other measures included the Life Orientation Test \((n = 449)\) (LOT; Scheier & Carver, 1985), the Marlowe-Crowne Social Desirability Scale \((n = 318)\) (Crowne & Marlowe, 1960) and an index of religious participation \((n = 237)\) (Pressman, Lyons, Larson, & Strain, 1990). For the total sample, Tedeschi and Calhoun found no relationship between the PTGI and age of participants \((r = .01, \text{n.s.})\), or time since the event. \((r = .02, \text{n.s.})\). The PTGI was also found to be unrelated to social desirability, although individuals reporting greater Appreciation for Life also tended to respond in a slightly less socially desirable fashion. The PTGI was found to be positively correlated to optimism \((r = .23, p < .01)\), religiosity \((r = .25, p < .01)\) as well as the NEO scales of Extraversion \((r = .29, p < .01)\), Openness \((r = .21, p < .01)\), Agreeableness \((r = .18, p < .01)\), and Conscientiousness \((r = .16, p < .01)\).

In their 2010 study of breast cancer survivors \((n = 470)\), Brunet, McDonough, Hadd, Crocker, and Sabiston explored the reliability and factor structure of the PTGI. Reliability estimates were reported for the total scale \((.95)\), and individual scales, including Relating to Others \((.91)\), New Possibilities \((.85)\), Personal Strength \((.86)\), Spiritual Change \((.83)\), and Appreciation for Life \((.84)\). Using confirmatory factor analysis, Brunet et al. evaluated the five-factor structure presented by Tedeschi and Calhoun (1996). Utilizing Byrne’s (1998) recommendations, Brunet et al. determined that the five-factor model was the best fit for the data, as indicated by the root mean square error of approximation \((\text{RMSEA; .10})\), comparative fit index \((\text{CFI; .97})\), non-normed fit index \((\text{NNFI; .96})\), and standardized root mean squared residual \((\text{SRMR; .05})\). Cronbach’s alpha for the present study ranged from .73 to .85, falling within the acceptable range. Specifically, the alpha for the PTGI total scale was .93, with subscales
as follows: Personal Strength, .78, Relating to Others, .85, Appreciation for Life, .73, New Possibilities, .84, and Spiritual Change .82.

*Changes in Outlook Questionnaire (CiOQ; Joseph, Williams, & Yule, 1993; See Appendix E).* The CiOQ was used to measure positive and negative changes in outlook following a traumatic event. The measure consists of two scales, the Changes in Outlook Positive (CiOP) and the Changes in Outlook Negative (CiON). The CiOP is an 11-item subscale that assesses positive changes following a traumatic event. A sample item is “I value my relationships much more now.” The CiON is a 15-item subscale that measures negative changes following trauma. A sample item is “I don’t look forward to the future anymore.” Each item is responded to on a six-point scale ranging from *strongly disagree* to *strongly agree*. In validation studies, the CiOQ was found to consist of two factors that correspond to the CiOP and CiON scales, and both internal consistency and reliability estimates ranged from .80 to .87 and .86 to .88 for the CiOP and CiON, respectively (Joseph et al., 2005).

In a study exploring the convergent and discriminant validity of the CiOQ, (Joseph et al., 2005) the CiOP scores were found to correlate strongly with the other growth scales, including the Perceived Benefit Scale Positive (McMillen & Fischer, 1998; \( r = .66, p < .001 \)), Stress-Related Growth Scale (Park, Cohen, & Murch, 1996; \( r = .60, p < .001 \)), and the Thriving Scale (Abraido-Lanza, Guier, & Colon, 1996; \( r = .66, p < .001 \)), whereas the CiON scores correlated strongly with the negative scales such as the Perceived Benefit Scale Negative (McMillen & Fisher, 1998; \( r = .65, p < .65 \)), Impact of Event Scale (Horrowitz, Wilner, & Alvarez, 1979) Intrusion scale (\( r = .39, p > .001 \)) and
Avoidance scale \((r = .43, p > .001)\), and the General Health Questionnaire-28 (GHQ-28; Goldberg & Hillier, 1979; \(r = .75, p > .001\)). Additionally, associations between the CiOP and negative scales were weak or nonexistent, such as the Impact of Event Scale Avoidance scales \((r = .19, p > .05)\) and GHQ-28 \((r = -.34, p < .05)\). The relationships between the CiON and the positive scales were also weak or in the expected negative direction, including the Perceived Benefit Scale Positive \((r = .04, p > .05)\), Stress Related Growth Scale \((r = .12, p < .05)\), Posttraumatic Growth Inventory \((r = -.03, p > .05)\), and Thriving Scale \((r = -.06, p < .05)\). These results support the measure’s use in studies utilizing both positive and negative measures following a traumatic event.

Although the CiOQ was not designed to assess psychopathology, Joseph et al. (2005) further evaluated the measure’s relationship to other measures of psychological distress, particularly that of PTSD (Impact of Event Scale; Posttraumatic Stress Disorder Symptom Scale; PSS; Foa, Riggs, Dancu, & Rothebaum, 1993). Results suggested that the CiON was more strongly related to measures of distress, avoidance, and arousal, whereas the CiOP was more strongly related to measures of intrusion, which fits the posttraumatic growth model as it includes a significant amount of cognitive processing that is necessary for the development of positive growth. The CiOQ exhibited similar reliability in the present study, with the CiON resulting in an alpha of .93 and the CiON resulting in an alpha of .85.

*Scale of Emotional Closeness (SEC; Servaty-Seib & Pistole, 2006; See Appendix F).* The SEC was used to measure the level of emotional closeness the participants experienced to the individual they lost to suicide. Developed to explore the experiences
of bereaved adolescents, the SEC does not appear to have been utilized in any other studies to date. The scale of the SEC consists of seven items on a seven-point Likert scale ranging from very strongly disagree to very strongly agree. Examples of items include “I felt I could share my most intimate feelings with this person” and “This person understood me.” Two of the items are reverse scored, and higher scores indicate greater emotional closeness. For their study, Servaty-Seib and Pistole reported an internal consistency reliability estimate of .87 and correlations in expected directions with other study measures. For instance, the SEC correlated with the Texas Revised Inventory of Grief (TRIG; Fashingbauer, Zisook, & DeVaul, 1977) Past subscale ($r = .43, p < .01$) and Present subscale ($r = .45, p < .01$), as is expected for separate but highly related variables. Chronbach’s alpha for the SEC total scale for the present study was .88.

*Center for Epidemiological Studies Depression—Revised (CESD-R; Eaton, Muntaner, Smtih, Tien, & Ybarra, 2004; See Appendix G)*. The CESD-R was used in the present study as a measure of the distress the participant is currently experiencing due to the loss of their loved one to suicide. The CESD-R is a measure developed from the Center for Epidemiological Studies Depression Scale (CESD; Radloff, 1977). In several studies within the same article, Eaton et al. revised the measure by adding ten items from the work of Zimmerman and Coryell (1994). In addition, the authors reworded two items and added an additional ten items and altered the response set that included “nearly every day for two weeks,” in congruence with the DSM-IV depression criteria. The resulting 40-item version was tested ($n = 41$) and exhibited good internal consistency ($\alpha = .96$). Thirty of these items were then utilized in a telephone survey of West Virginia residents.
95

(n = 1,055). Results of an exploratory factor analysis yielded a one-factor structure that accounted for 35% of the total variance. Eaton et al. further evaluated a 40-item scale in a sample of parents from a mental health survey. Results form this study yielded a 20-item scale exhibiting good reliability and content validity as it relates to the DSM-IV. Eaton et al. further validated a Spanish translation of the CESD-R and a vulnerable population at risk for depression. Internal consistency reliabilities for these studies ranged from .87 to .98. When compared with the CESD, the CESD-R appears to be highly correlated (r = .89). Cronbach’s alpha for the CESD-R total score in the present study was acceptable at .905. Alpha reliability scores for the scales ranged from .60 (Tired/Fatigued) to .85 (Dysphoria).

**Impact of Events Scale (IES; Horowitz, Wilner, & Alvarez, 1979; See Appendix H).** The IES was used to measure the subjective impact of losing a loved one to suicide. Horowitz et al. identified two major response sets to traumatic events: intrusion and avoidance. Intrusion includes experiences of unwanted thoughts and images, dreams of the event, waves of feelings, and repetitive behavior. Avoidance includes trying to not think about the event, denial of meaning and consequences of the event, and being aware of emotional numbness. The IES consists of 20 items; nine of which referred to intrusion and 11 of which referred to experiences of avoidance. In the Horowitz et al. study, the test-retest reliability was .87 for the total IES score, and .89 for the intrusion subscale and .79 for the avoidance subscale.

In a cross validation study, Zilberg, Weiss, and Horowitz (1982) explored the validity of the IES. Use of the IES in the present study is justified since the goal of the
current study is not to diagnose individuals with PTSD but rather to measure their subjective level of distress, which has been repeatedly reinforced by several studies of the IES (Briere & Elliott, 1998; Joseph, 2000; Zilberg et al.). For instance, Briere and Elliott (1998) reported that the IES correlated positively with all three subscales of the Trauma Symptom Inventory (Intrusive Experiences $r = .68$, $p < .01$, Defensive Avoidance $r = .70$, $p < .01$, Anxious Arousal, $r = .51$, $p < .01$). Zilberg et al. also reported reliabilities ranging from .86 to .90 for both internal consistency and test-retest design with a one-week interval.

Andrews, Shevlin, Troop, and Joseph (2003) investigated the possible multidimensional nature of the intrusion and avoidance subscales on the IES. Participants included 485 emergency personnel who were administered the IES, Posttraumatic Stress Disorder Scale (PSS; Foa et al., 1993), and the Hospital Anxiety and Depression Scale (HAD; Zigmond & Snaith, 1983). Andrews et al. tested seven different models utilizing confirmatory factor analysis. Results indicated that a second-order factor model best fits the data ($\chi^2 = 177$, $p < .001$; GFI = .99; IFI = .99; CFI = .98, RMSEA = .047; ECVI = .514). This second-order model supported the two primary factors of Intrusion and Avoidance, consistent with Horowitz et al.’s (1979) original model. The second-order factors are numbing and sleep disturbance, which can also be combined into a single, more general second-order factor of “general distress.” While the second-order model may best fit the data, the two-factor solution also provides a good fit for the data ($\chi^2 = 244$, $p < .05$; GFI = 0; IFI = .97; CFI = .97, RMSEA = .060; ECVI = .641) and may be preferable to the second-order factor model (which includes the “general distress” factor) for the sake of simplicity.
In addition, Andrews et al. (2004) also evaluated the validity of the IES total score. Results indicated that the IES significantly and positively correlated with another measure of posttraumatic distress (Posttraumatic Stress Scale; PSS; Foa et al., 1993; PSS Total \( r = .79, p < .001 \), PSS intrusion \( r = .74, p < .001 \), PSS avoidance \( r = .70, p < .001 \), PSS arousal \( r = .68, p < .001 \)). These correlations with the PSS were higher than correlations with the other measure of more general distress, the HAD (Zigmond & Snaith, 1983; HAD anxiety \( r = .45, p < .001 \), HAD Depression \( r = .42, p < .001 \)). This supports the validity of the IES as a measure of posttraumatic distress.

In a review of the IES’s 20 years of use, Sundin and Horowitz (2003) reviewed data from 72 separate studies utilizing the IES. These authors evaluated the effect of demographic variables (age, gender, country, and publication year) on scores on the IES and whether the type of event accounted for unique variance after controlling for demographic variables. Results indicated that only the type of event accounted for a significant proportion of variance within Impact of Event Scale intrusion (\( \Delta R^2 = .30, p < .001 \)), and avoidance (\( \Delta R^2 = .27, p < .001 \)). Type of event accounted for a significant proportion of the variance (\( \beta = .53, p < .01 \) for IES intrusion, \( \beta = .49, p < .01 \) for avoidance). In the present study, the alpha coefficient for the total IES was .92, which is in the acceptable range. The scale scores also fell within the acceptable range, with the Intrusion scale resulting in a .91 alpha coefficient and the Avoidance scale resulting in an alpha of .86.

Hypotheses and Data Analysis

The particular statistical analyses are described for each hypothesis below.
1. Consistent with Tedeschi and Calhoun’s (1995) theory of Post-Traumatic growth, positive growth following a traumatic experience requires ample time to process the traumatic event itself. Specifically: Persons whose suicide loss is more recent will report less growth than those whose suicide loss occurred less recently.

This hypothesis was assessed utilizing correlation with the PTGI total score and time since loss, as measured by the time reported by the participant on the demographic questionnaire. The hypothesis will be supported if time since loss, as measured by the demographic questionnaire, is positively correlated with the PTGI total score with a significance level of .05.

2. While not explicitly addressed by Tedeschi and Calhoun (1995), Solomon and Dekel’s (2007) exploration of the relationship between negative symptoms and posttraumatic growth was a logical extension of their theory. Given that Solomon and Dekel found a curvilinear relationship between the posttraumatic growth and the negative symptoms, we anticipate a similar result to be exhibited for the suicide bereaved. Specifically: Individuals with low or high levels of negative symptoms will endorse lower levels of post-traumatic growth than those with moderate levels of distress.

This hypothesis was assessed using curvilinear regression with the PTGI total score as the criterion variable and the distress variables (CESD-R, CIOQ-Negative, and IES) as the predictor variables. This hypothesis was supported if a curvilinear relationship exists between the CESD-R, CIOQ-Negative, and IES and PTGI total score that is significant at the .05 level.

3. Tedeschi and Calhoun (1995) argued that posttraumatic growth could not occur without some level of distress. Logically, if one is emotionally close to an individual who dies by suicide, it is likely that the bereaved will experience some level of distress. Without that emotional closeness, growth is less likely
to occur. As such, given Mitchell et al.’s (2009) study results suggesting that kinship impacts how much grief an individual experiences following loss by suicide, it is anticipated that the reported emotional closeness to the deceased will impact the level of distress and posttraumatic growth. Specifically:

a. Those who report strong emotional ties to the deceased will report higher levels of distress than those who report less emotional closeness.
b. Those who report strong emotional ties to the deceased will report higher levels of posttraumatic growth than those who report less emotional closeness.

Hypothesis three was evaluated utilizing a correlation between scores on the SEC and PTGI total score and the SEC and measures of distress (CESD-R, IES, CiON). It will be supported if there is a positive correlation between the SEC and PTGI total score that is significant at the .05 level.

4. One area in which Tedeschi and Calhoun’s (1995) theory anticipates growth following a trauma is that of Changed Relationship with Others. Consistent with theory and Dunn and Morrish-Vinders (1987), whose study suggested that individuals who lost a loved one to suicide found closer social relationships, it is anticipated that persons who lost a loved one to suicide will report an impact on their relationships with others. Specifically: It is anticipated that one of the most-reported areas of growth for the suicide bereaved will be that of changed relationships with others.

Hypothesis four was evaluated utilizing paired-sample T-tests with a Bonferroni correction. Scores on the Changed Relationships with Others scale of the PTGI were compared to scores on the other scales of the PTGI. The hypothesis will be supported if the mean scores of the Changed Relationships with Others scale is statistically significantly higher than the scores on the other scales of the PTGI at the .05 level.
5. Consistent with Tedeschi and Calhoun’s (1995) theory of Posttraumatic Growth which states that distress decreases as the time since the traumatic event increases, it is anticipated that as times since the loss by suicide increases, the level of overall distress will decrease. Specifically: It is anticipated that those who have had longer since their suicide loss will report less overall distress.

This hypothesis was assessed using correlations. It will be supported if there is a statistically significant negative correlation between time since loss, as measured by the demographic questionnaire, and measures of distress, including the CESD-R, CIOQ-Negative, and IES at the .05 level.
CHAPTER IV
RESULTS

Introduction

The present chapter presents the results of the analyses completed. First, the demographic information of the participants is provided. Second, the results of the preliminary analyses completed to determine the utility of the data are described. Third, the analyses to evaluate the hypotheses described in Chapter III are described. Finally, additional analyses conducted to understand the surprising results of the data are described.

Participant Demographics

Of the 325 participants, 88% \((n = 285)\) were female, with 12% \((n = 40)\) males. Although not requested in the survey, the program automatically collected information on the geographic location of 315 of the participants. This information indicates that the majority of participants were from the United States \((n = 265, 82\%)\). Please see Table 1 for a complete listing of participant’s locations.
Table 1. Country of Participants (N = 325)

<table>
<thead>
<tr>
<th>Country</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States of America</td>
<td>265</td>
<td>82%</td>
</tr>
<tr>
<td>Canada</td>
<td>20</td>
<td>6.1%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9</td>
<td>2.7%</td>
</tr>
<tr>
<td>Australia</td>
<td>9</td>
<td>2.7%</td>
</tr>
<tr>
<td>Ireland</td>
<td>3</td>
<td>.92%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>2</td>
<td>.62%</td>
</tr>
<tr>
<td>Denmark</td>
<td>1</td>
<td>.31%</td>
</tr>
<tr>
<td>France</td>
<td>1</td>
<td>.31%</td>
</tr>
<tr>
<td>Germany</td>
<td>1</td>
<td>.31%</td>
</tr>
<tr>
<td>Austria</td>
<td>1</td>
<td>.31%</td>
</tr>
<tr>
<td>Japan</td>
<td>1</td>
<td>.31%</td>
</tr>
<tr>
<td>Spain</td>
<td>1</td>
<td>.31%</td>
</tr>
<tr>
<td>Not recorded</td>
<td>10</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Table 2 contains the complete demographic information of the participants.

Participants reported an age range of 20-76 with an average age of 42.78 years (SD = 11.72, median = 43). Participants were primarily married (n = 172, 52.9%) or single (n = 69, 21.2%), and self-identified as primarily Caucasian (n = 299, 92%) or Biracial/Multiracial (n = 9, 2.8%). Participants also reported that they were well-educated, with 33.5% college graduates (n = 109), 27.7% with some college (n = 90), and 27.1% with professional degrees (n = 88). The amount of time that had passed since the loss of the loved one to suicide was one month to 587 months (one month to approximately 49 years), with a mean of 89.5 months (approximately 7.5 years; SD = 99.48 months, median = 51 months, 4.25 years). One hundred and fifty-one participants reported seeking help via support groups or professionals. Fifty-eight of the individuals reported seeking support group help only. Forty individuals only sought professional assistance, and 76 individuals reported seeking no assistance at all.
Table 2. Demographic Information ($N = 325$)

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>$n$</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relationship Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>69</td>
<td>21.2%</td>
</tr>
<tr>
<td>Married</td>
<td>172</td>
<td>52.9%</td>
</tr>
<tr>
<td>Cohabitating</td>
<td>23</td>
<td>7.1%</td>
</tr>
<tr>
<td>Divorce</td>
<td>26</td>
<td>8%</td>
</tr>
<tr>
<td>Engaged</td>
<td>6</td>
<td>1.8%</td>
</tr>
<tr>
<td>Separated</td>
<td>2</td>
<td>.6%</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>8.3%</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>299</td>
<td>92%</td>
</tr>
<tr>
<td>Bi/Multiracial</td>
<td>9</td>
<td>2.8%</td>
</tr>
<tr>
<td>Latino/a</td>
<td>7</td>
<td>2.2%</td>
</tr>
<tr>
<td>Native</td>
<td>3</td>
<td>.93%</td>
</tr>
<tr>
<td>American/Aboriginal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian/Alaska Native</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>1</td>
<td>.31%</td>
</tr>
<tr>
<td>Other/Not Specified</td>
<td>6</td>
<td>1.85%</td>
</tr>
<tr>
<td><strong>Educational Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Graduate</td>
<td>109</td>
<td>33.5%</td>
</tr>
<tr>
<td>Some College</td>
<td>90</td>
<td>27.7%</td>
</tr>
<tr>
<td>Professional Degree</td>
<td>88</td>
<td>27.1%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>32</td>
<td>9.8%</td>
</tr>
<tr>
<td>Some High School</td>
<td>6</td>
<td>1.8%</td>
</tr>
<tr>
<td><strong>Ages</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>12</td>
<td>3.7%</td>
</tr>
<tr>
<td>25-29</td>
<td>29</td>
<td>8.9%</td>
</tr>
<tr>
<td>30-24</td>
<td>60</td>
<td>18.5%</td>
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<tr>
<td>35-39</td>
<td>38</td>
<td>11.7%</td>
</tr>
<tr>
<td>40-44</td>
<td>42</td>
<td>12.9%</td>
</tr>
<tr>
<td>45-49</td>
<td>40</td>
<td>12.3%</td>
</tr>
<tr>
<td>50-54</td>
<td>45</td>
<td>13.8%</td>
</tr>
<tr>
<td>55-59</td>
<td>32</td>
<td>9.8%</td>
</tr>
<tr>
<td>60-64</td>
<td>18</td>
<td>5.5%</td>
</tr>
<tr>
<td>65-69</td>
<td>7</td>
<td>2.2%</td>
</tr>
<tr>
<td>70+</td>
<td>2</td>
<td>.6%</td>
</tr>
</tbody>
</table>

Participants also provided information on how they had heard about the study.

Participants reported this information in varying ways, so categorizing them is difficult and exact results for each area are not obtainable. However, over 150 participants (over
46%) reported they heard of the study via Facebook®. Others reported hearing of the study via e-mail (about 45, or 13.8%), through support groups (about 33, or 10.2%), or one of the online forums (about 20, or 6.2%). See complete demographic information in Table 2.

Preliminary Analysis

Participants included 426 individuals who reached the Informed Consent page of the survey. Of those, 101 participants left large portions of the survey measures blank or did not complete any of the survey measures and were excluded from the analysis, for a completion rate of 76%. Twenty-five individuals left three or fewer items on one study measure (the PTGI) blank. Following the recommendations of Tabachnick and Fidell (2004) a Missing Values Analysis was completed to determine if there were any patterns to the missing data. This analysis indicated that there were no significant patterns. Tabachnick and Fidell recommended that if the missing data represented less than five percent of the total data, using series mean replacement for the missing items is appropriate. As such, the missing data points were replaced with the series mean. Data was also screened for skew, kurtosis, and outliers, with no issues indicated. The final sample consisted of 325 individuals aged 18 and over. Means, standard deviations, ranges, and Cronbach’s alpha for study measures are presented in Table 3. Table 4 presents the correlation matrix for the research variables.
Hypothesis 1

The first hypothesis states that, consistent with Tedeschi and Calhoun’s (1995) theory of posttraumatic growth, persons whose loss to suicide is more recent will experience less posttraumatic growth than those whose loss occurred less recently. This hypothesis was assessed using a correlation between the Posttraumatic Growth Inventory total score and the amount of time since the individual’s loss, as reported on the demographic questionnaire. The analysis was run with a predetermined alpha level of .05. The correlation was nonsignificant ($r = .047, p = .39$). Thus, in this sample, there is no statistically significant relationship between the amount of time since the participant’s loss to suicide and posttraumatic growth. Hypothesis 1 is not supported.

Table 3. Mean, Range, Standard Deviation, and Cronbach’s Alpha for Study Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESD-R</td>
<td>26.71</td>
<td>10.21</td>
<td>0-57</td>
<td>.91</td>
</tr>
<tr>
<td>IES</td>
<td>29.50</td>
<td>18.70</td>
<td>0-75</td>
<td>.92</td>
</tr>
<tr>
<td>CiON</td>
<td>39.34</td>
<td>16.36</td>
<td>15-83</td>
<td>.93</td>
</tr>
<tr>
<td>CiOP</td>
<td>44.36</td>
<td>44.36</td>
<td>13-66</td>
<td>.85</td>
</tr>
<tr>
<td>SEC</td>
<td>37.00</td>
<td>10.05</td>
<td>7-49</td>
<td>.88</td>
</tr>
<tr>
<td>PTGI</td>
<td>78.00</td>
<td>22.41</td>
<td>21-126</td>
<td>.93</td>
</tr>
<tr>
<td>New Possibilities</td>
<td>19.02</td>
<td>6.18</td>
<td>5-30</td>
<td>.84</td>
</tr>
<tr>
<td>Personal Strength</td>
<td>14.74</td>
<td>4.66</td>
<td>4-24</td>
<td>.78</td>
</tr>
<tr>
<td>Relating to Others</td>
<td>24.84</td>
<td>3.5</td>
<td>7-42</td>
<td>.85</td>
</tr>
<tr>
<td>Appreciation for Life</td>
<td>12.66</td>
<td>3.50</td>
<td>3-18</td>
<td>.73</td>
</tr>
<tr>
<td>Spiritual Change</td>
<td>6.74</td>
<td>2.98</td>
<td>2-12</td>
<td>.82</td>
</tr>
</tbody>
</table>

*Note. CESD-R = Center for Epidemiological Studies Depression scale-Revised; SEC = Scale of Emotional Closeness; IES = Impact of Event Scale; CiON= Changes in Outlook Questionnaire—Negative Scale; CiOP= Changes in Outlook Questionnaire—Positive Scale PTGI = Posttraumatic Growth Inventory.*
Hypothesis 2

The second hypothesis states that, as an extension of Tedeschi and Calhoun’s (1995) theory of posttraumatic growth, and consistent with Solomon and Dekel’s (2007) study, a curvilinear relationship between negative symptoms and posttraumatic growth would exist in the suicide bereaved. This hypothesis was assessed using quadratic curve estimation regression analysis with the PTGI total score as the criterion variable and the distress variables (CESD-R, CiOQ-Negative, and IES) individually, as predictors. The relationship between the CESD-R total score and the PTGI total score was statistically significant ($r^2 = .04, F(322, 2) = 6.12, p = .002$), and presented only a weak curvilinear relationship.
Table 4. Correlation Coefficients for All Measures and PTGI Subscales

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Time since loss</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Emotional closeness</td>
<td></td>
<td>-25**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. CESD-R</td>
<td></td>
<td>16**</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. CiON</td>
<td></td>
<td>21**</td>
<td>16**</td>
<td>17**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. CiOP</td>
<td></td>
<td>.08</td>
<td>14*</td>
<td>-.10</td>
<td>-.36**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. IES</td>
<td></td>
<td>32**</td>
<td>.28**</td>
<td>.09</td>
<td>56**</td>
<td>-.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. PTGI</td>
<td>.05</td>
<td>.02</td>
<td>18**</td>
<td>.06</td>
<td>-.06</td>
<td>-.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. PTGI: New Possibilities</td>
<td>.03</td>
<td>.03</td>
<td>22**</td>
<td>.07</td>
<td>85**</td>
<td>.08</td>
<td>85**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. PTGI: Relating to Others</td>
<td>.06</td>
<td>.02</td>
<td>12*</td>
<td>.06</td>
<td>-.05</td>
<td>-.05</td>
<td>88**</td>
<td>62**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. PTGI: Personal Strength</td>
<td>.03</td>
<td>.01</td>
<td>17**</td>
<td>.06</td>
<td>-.06</td>
<td>.81</td>
<td>81**</td>
<td>81**</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. PTGI: Appreciation of Life</td>
<td>-.00</td>
<td>.02</td>
<td>17**</td>
<td>.06</td>
<td>-.01</td>
<td>-.00</td>
<td>82**</td>
<td>64**</td>
<td>65**</td>
<td>64**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. PTGI: Spiritual Change</td>
<td>.07</td>
<td>-.04</td>
<td>.04</td>
<td>.04</td>
<td>-.02</td>
<td>-.04</td>
<td>44**</td>
<td>44**</td>
<td>45**</td>
<td>42**</td>
<td>42**</td>
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<tr>
<td>13. SEC</td>
<td>-.19</td>
<td>.56**</td>
<td>.00</td>
<td>.03</td>
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<td>.00</td>
<td>.00</td>
<td>-.05</td>
<td>-.05</td>
<td>-.05</td>
<td></td>
</tr>
</tbody>
</table>

Note. * = Significant at .05, ** = Significant at .01 Emotional Closeness = One-item measure on demographic measure; CESD-R = Center for Epidemiological Studies Depression scale-Revised; CiON = Changes in Outlook Questionnaire—Negative Scale; CiOP = Changes in Outlook Questionnaire—Positive Scale; IES = Impact of Event Scale; PTGI = Posttraumatic Growth Inventory; SEC = Scale of Emotional Closeness.
The significant result indicates that there is a relationship between depression, as measured by the CESD-R, and post-traumatic growth, as measured by the PTGI. However, the relationship is not a strong curvilinear relationship, as hypothesized. In fact, the relationship is relatively small. This indicates that there is a weak curvilinear relationship between depression and posttraumatic growth, suggesting that there is a tendency for those who experience an average amount of depression to report slightly higher levels of growth. The scatter plot is presented in Figure 2.

![Figure 2. Regression curve estimation plotting Center for Epidemiological Studies Depression Scale—Revised total score against Posttraumatic Growth Inventory total score.](image)

Similarly, the relationship between the CiOQ-Negative and the PTGI total score was nonsignificant ($r^2 = .006, F(322, 2) = .97, p = .382$). This indicates that there is not a statistically significant relationship between negative changes in outlook, as measured by
the CiOQ-Negative, and posttraumatic growth, as measured by the PTGI. The scatter plot for this relationship is presented in Figure 3. Finally, the IES total score and the PTGI total score also did not evidence a statistically significant relationship ($r^2 = -.001$, $F(322, 2) = .01, p = .99$). This result indicates that there is not a statistically significant relationship between the impact of the event, as measured by the IES, and posttraumatic growth, as measured by the PTGI. The scatter plot of the relationship between the IES and PTGI is presented in Figure 4. Thus, it does not appear that a curvilinear relationship exists between the three distress variables and posttraumatic growth, as predicted in Hypothesis 2.

Figure 3. Regression curve estimation plotting Changes in Outlook Questionnaire Negative Scale total score against Posttraumatic Growth Inventory total score.
Figure 4. Regression curve estimation plotting Impact of Event Scale total score against Posttraumatic Growth Inventory total score.

Hypothesis 3

Consistent with Tedeschi and Calhoun’s (1995) theory of posttraumatic growth, hypothesis three states that individuals will experience increased distress and posttraumatic growth as a function of emotional closeness, as compared with those who report a lower level of emotional closeness. Posttraumatic growth was measured by the PTGI total score, emotional closeness was measured by the Scale of Emotional Closeness total score, and distress was measured by the total scores of the CESD-R, IES, and CiON. Given that the SEC was utilized in only one previous study, a single-item validity check was developed for the present study in the demographic questionnaire. This item (“How emotionally close do you feel to the individual who died by suicide?”) correlated at a
statistically significant level with the total SEC score ($r = .56, p < .01$), indicating that, as the scores on the SEC go up, so do scores on the demographic item measuring emotional closeness. None of the other study measures correlated significantly with the SEC. However, when the demographic item was used as a proxy for the SEC, there was a significant and positive correlation with the Impact of Event Scale ($r = .28, p < .01$) and Changes in Outlook Questionnaire Negative Scale ($r = .16, p < .01$). It is unclear why the measure and its validity check, which correlated significantly, were differentially related to the other study measures. However, it is likely, given that only 32% of the variance between the two is shared, that the multiple-item SEC measured a slightly different construct than the simplistic one-item validity check, which caused it to be less correlated with the other study measures. The relationship between the distress measures and the emotional closeness item indicates that as emotional closeness increased, so did the amount of distress in terms of intrusive thoughts or images about the event, avoidance of things that remind the individual of the event, and in negative changes in an individual’s outlook. However, the relationship between the demographic measure of emotional closeness and the PTGI total scale was nonsignificant ($r = .05, p > .05$), as was the relationship between the CESD-R total scale and the demographic measure of emotional closeness ($r = .06, p > .05$). Thus, hypothesis 3 is partially supported.

**Hypothesis 4**

As an extension of Tedeschi and Calhoun’s (1995) theory of Posttraumatic Growth and consistent with Dunn and Morrish-Vinders (1987) study, hypothesis 4 states that persons who lost a loved one to suicide will report a greater impact on their
relationships with others, as measured by the PTGI’s Changed Relationship to Others Scale, than in other areas of growth, as measured by the four other subscales of the PTGI (Appreciation of Life, Personal Strength, New Possibilities, and Spiritual Change). Given that the subscales of the PTGI are of varying lengths, it was necessary to standardize the scores in order to compare them. As such, each scale was divided by the number of items on the scale and a standardized mean was obtained. Mean comparisons were then made using paired sample t-tests. Means for the standardized values of the scales and t-test values can be found in Table 5. The comparisons between standardized scale scores indicated that the Relating to Others scale was significantly different from all other scales except Personal Strength ($t(1, 324) = -1.70, p = .09$). However, Changed Relationship with Others was significantly greater than only one other subscale, Spiritual Change ($t(1,324) = 8.96, p < .00$). Both New Possibilities ($t(1,324) = 5.74, p < .000$) and Appreciation of Life ($t(1, 324) = 10.03, p < .000$) had standardized mean scores that were statistically significantly greater than Changed Relationship with Others. As such, hypothesis 4 was not supported. Individuals who have lost loved ones to suicide do not have significantly greater growth in the area of Changed Relationship with Others than other areas of posttraumatic growth.

Table 5. Standardized Means, Standard Deviations, and t-Values of PTGI Scales

<table>
<thead>
<tr>
<th></th>
<th>Standardized Mean</th>
<th>Standard Deviation</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relating to Others</td>
<td>3.77</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Possibilities</td>
<td>3.42</td>
<td>1.34</td>
<td>5.74*</td>
<td>&lt;.000</td>
</tr>
<tr>
<td>Personal Strength</td>
<td>3.88</td>
<td>1.20</td>
<td>-1.70</td>
<td>.091</td>
</tr>
<tr>
<td>Appreciation of Life</td>
<td>4.35</td>
<td>1.28</td>
<td>-10.03*</td>
<td>&lt;.000</td>
</tr>
<tr>
<td>Spiritual Change</td>
<td>2.98</td>
<td>1.73</td>
<td>8.96*</td>
<td>&lt;.000</td>
</tr>
</tbody>
</table>

Note. * = significant at .01 level; PTGI = Posttraumatic Growth Inventory.
Hypothesis 5

Hypothesis 5 states that, Consistent with Tedeschi and Calhoun’s (1995) theory, individuals whose loss is more recent will experience more distress than those whose loss is less recent. This is assessed by a correlation between time since loss, and measures of distress, including the CESD-R, CiQ-Negative, and IES. Results indicate that as the amount of time since the loss to suicide increases, distress decreases. Specifically, time since loss is significantly negative correlated with the Impact of Event Scale \((r = -.32, p < .01)\), Changes in Outlook Questionnaire-Negative Scale \((r = -.21, p < .01)\), and Center for Epidemiological Studies Depression Scale-Revised \((r = -.16, p < .01)\). As such, hypothesis 5 is supported. See Table 6 for full correlations.

Table 6. Correlations Between Time Since Loss and Distress Variables

<table>
<thead>
<tr>
<th></th>
<th>Time Since Loss</th>
<th>CiON</th>
<th>CESD-R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Since Loss</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CiON</td>
<td>-.21*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CESD-R</td>
<td>-.16*</td>
<td>.17*</td>
<td>1</td>
</tr>
<tr>
<td>IES</td>
<td>-.32*</td>
<td>.56*</td>
<td>.09</td>
</tr>
</tbody>
</table>

Note. * = significant at the .01 level; CiON= Changes in Outlook Questionnaire—Negative Scale Scale; CESD-R = Center for Epidemiological Studies Depression scale-Revised; IES = Impact of Event Scale.

Additional Analyses

Given the unanticipated results of the present study, particularly the lack of support for Hypothesis 1 and 2, additional analyses were run to determine if other study variables could have impacted the unexpected results. In particular, it was hypothesized that the large number of participants who had sought support group or professional help may have impacted the results. Specifically, it was questioned whether the experience of support group or professional help caused increased or decreased posttraumatic growth.
As such, a Multivariate Analysis of Variance (MANOVA) was conducted using the items from the demographic measure inquiring about any professional or support group help sought by the participant as the independent variable, and measures of resulting sequelae (CESD-R, IES, CiON, PTGI) as the dependent variables. In other words, there were two levels for each independent variable—whether the individual sought that type of support (yes), or did not seek that type of help (no). A majority of participants reported seeking help from a support group (64.30%, \( n = 209 \)) or professional (58.77%, \( n = 191 \)). It is important to understand that these groups are not exclusive, and many participants reported seeking help from both support groups and professionals following their loss (46.5%, \( n = 151 \)). Similarly, many participants reported seeking support group help alone (17.8%, \( n = 58 \)) or professional help alone (20.9%, \( n = 40 \)). Some participants reported seeking neither support group nor professional help (23.4%, \( n = 76 \)).

The MANOVA was significant (Wilks’ Lambda = .057, \( F(4, 318) = 1303.37, p = .000 \), partial \( \eta^2 = .94 \)), indicating that individuals responded differently to study measures if they had sought some sort of help (professional or support group) following their loss. In terms of between subjects results, whether or not an individual sought support group help significantly impacted their scores on the study measures (\( F(4, 318) = 7.24, p = .000 \)). Whether or not individuals sought professional help did not significantly impact their outcomes on the study measures significant (\( F(4, 318) = .420 , p = .80 \)). There was no effect on the measures in terms of the interaction between whether individuals sought professional help and whether individuals sought support group help (\( F(4, 318) = 1.26, p = .286 \), partial \( \eta^2 = .016 \)).
When the individual ANOVAs were conducted to determine which responses contributed to the variance of the MANOVA, results indicated that individuals who had and had not sought support groups differed in terms of some of the study measures.

Whether the individuals sought support groups did not result in significant differences on the CESDR \( (F(4, 318) = 3.34, p = .069, \text{ partial } \eta^2 = .01) \) or PTGI \( (F(4, 318) = .11, p = .74, \text{ partial } \eta^2 = .00) \). However, it did impact scores on the CiON \( (F(4, 318) = 14.70, p = .074, \text{ partial } \eta^2 = .04) \), and IES \( (F(4, 318) = 25.50, p = .00, \text{ partial } \eta^2 = .01) \). See Table 7 for means and standard errors complete significance of difference resulting from this analysis.

<table>
<thead>
<tr>
<th></th>
<th>Mean (Support Group Sought)</th>
<th>Standard Error</th>
<th>Mean Difference</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesd-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>27.83</td>
<td>.79</td>
<td>-2.32</td>
<td>.07</td>
</tr>
<tr>
<td>No</td>
<td>25.51</td>
<td>.99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                  |                            |                |                 |     |
| Cion             |                            |                |                 |     |
| Yes              | 41.62                      | 1.23           | -7.57*          | .00 |
| No               | 34.04                      | 1.55           |                 |     |

|                  |                            |                |                 |     |
| Ies              |                            |                |                 |     |
| Yes              | 33.54                      | 1.38           | -11.26*         | .00 |
| No               | 22.28                      | 1.75           |                 |     |

|                  |                            |                |                 |     |
| PTGI             |                            |                |                 |     |
| Yes              | 79.05                      | 1.73           | -.93            | .74 |
| No               | 78.13                      | 2.18           |                 |     |

Table 7. MANOVA Contrast Results for the Main Effect of Support Group

* = Significant at .01 level; MANOVA = multivariate analysis of variance; Yes = Sought Support Group; No = Did not seek Support Group; CiON = Changes in Outlook Questionnaire—Negative Scale; CESD-R = Center for Epidemiological Studies Depression scale-Revised; IES = Impact of Event Scale; PTGI = Posttraumatic Growth Inventory.

Contrary to intuition, individuals who sought support group help reported significantly more negative changes in their outlook and in the impact of the event than those who did not seek support group help. To further explore this finding, two independent-sample t-tests were conducted comparing individuals who reported
participation in a support group and those who did not on the demographic variables of emotional closeness and the amount of time since their loss by suicide. Individuals who reported support group participation reported a significantly higher level of emotional closeness ($M = 4.65$, $SD = .75$) than those who did not report support group participation ($M = 3.95$, $SD = 1.19$; $t (1, 323) = 6.50$, $p = .00$). In short, those who felt more emotionally close to the individual lost by suicide reported that they sought support group help more frequently than those who reported less emotional closeness. Individuals who reported support group participation also had significantly less time since loss ($M = 69.17$ months or 5.77 years, $SD = 72.23$) than those who did not report support group participation ($M = 126.11$ or 10.51 years, $SD = 127.85$; $t (1, 323) = -5.13$, $p < .01$). Individuals who lost their loved one more recently were more likely to be involved in a support group.

**Confirmatory factor analysis.** Since several hypotheses in the present study resulted in unexpected conclusions, an exploration of the factor structure of the Posttraumatic Growth Inventory was conducted. It was hypothesized that the current sample would fit Tedeschi and Calhoun’s (1996) hypothesized five-domain model of posttraumatic growth. Tedeschi and Calhoun’s model included a factor for each of the domains described earlier: New Possibilities with five items (items 2, 13, 14, 19, 21), Relating to Others with seven items (6, 7, 9, 12, 15, 18, 20), Personal Strength with four items (items 4, 8, 10, 17), Appreciation of life with three items (items 1, 3, 11), and Spiritual Change with two items, (items 5, 16). The Confirmatory Factor Analysis (CFA) was conducted with Statistical Analysis Software (version 9.3). Each of the five domains
was considered to be a latent factor and each item was considered to be indicator
variables for each domain. Table 8 presents six different fit indices to evaluate the fit of
the data to the five domain model.

Table 8. Goodness of Fit Indices for the Five Factor Model of PTG

<table>
<thead>
<tr>
<th>Factor Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$\chi^2$/df</th>
<th>RMSEA</th>
<th>CFI</th>
<th>GFI</th>
<th>NNFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Factor Model</td>
<td>1155.86</td>
<td>179</td>
<td>&lt;.0001</td>
<td>6.45</td>
<td>.13</td>
<td>.72</td>
<td>.74</td>
<td>.67</td>
</tr>
</tbody>
</table>

Note. PTG = posttraumatic growth; RMSEA = root mean square error of approximation; CFI = Comparative Fit Index; GFI = Goodness of Fit Index; NNFI = non-normed fit index.

Following the procedure described by Hatcher (1994), the first fit index evaluated was that of the Chi-Square test. Hatcher stated that the chi-square test of the model should be nonsignificant if the data fits the model well. The result in the present study is $\chi^2 (179) = 1155.86$, which is significant at $p > .0001$. Hatcher further suggested that the chi-square statistic is often significant due to its sensitivity to sample size. Therefore, Hatcher suggested utilizing the $\chi^2$/df statistic, dividing the chi-square statistic by its degrees of freedom, because if the model is to be good, the chi-square should be approximately equal to no more than double to triple its degrees of freedom (i.e. the result should be between two and three). The $\chi^2$/df statistic for the present study was $\chi^2$/df = 6.45, significantly exceeding even the most relaxed criteria of three. Both of these statistics indicate that the model is a poor fit. Hatcher then suggests reviewing Bentler and Bonnett’s (1980) non-normed fit index (NNFI) and Bentler’s Comparative Fit Index (CFI), and Goodness of Fit Index (GFI) which Hatcher reported should have values over .90 to indicate an acceptable fit. The NNFI (.67), CFI (.72), and GFI (.74) fail to meet
Hatcher’s recommended cutoff. Furthermore, for a good fit it is suggested that the model produce a RMSEA value of less than .08, and in this model the RMSEA was .13, which exceeds the suggested cutoff. Overall, results indicate that Tedeschi and Calhoun’s (1996) proposed five domain model of PTG does not fit the present data.
CHAPTER V
DISCUSSION

Researchers have begun to explore the possibility of growth from bereavement by
suicide (Fieldman, 2003). However, previous studies have lacked a strong theoretical
groundwork and often were comprised of small numbers of participants (Begley &
Quayle, 2007; Fieldman, 2003; Murphy, Johnson, & Lohan, 2003). The goal of the
present study was to explore the experiences of those bereaved by suicide more
comprehensively by examining both the potential positive and negative sequelae of their
experiences. Specifically, the present study was designed to explore the relationships
between distress variables (CESD-R, IES, CiON), posttraumatic growth (PTGI), time
since loss by suicide, and the level of emotional closeness to the person lost to suicide.
The present study evaluated the research questions by having individuals who lost
someone to suicide complete five survey measures and a brief demographic form. A total
of 325 participants completed a demographic survey, the Posttraumatic Growth Inventory
(PTGI; Tedeschi & Calhoun, 1996), the Changes in Outlook Questionnaire (CiOQ;
Joseph, Williams, & Yule, 1993), the Center for Epidemiological Studies Depression
inventory—Revised (CESD-R; Eaton, Muntaner, Smith, Tien, & Ybarra, 2004), the Scale
of Emotional Closeness (SEC; Servaty-Seib & Pistole, 2006), and the Impact of Event
Scale (IES; Horowitz, Wilner, & Alvarez, 1979). The present data only partially
supported the relationship between posttraumatic growth and bereavement by suicide as predicted by the theory of posttraumatic growth (PTG; Tedeschi & Calhoun, 1996).

Overall, the present study does not support using Tedeschi and Calhoun’s (1995) theory of posttraumatic growth as a framework for exploring the experience of individuals bereaved by suicide. Although prior research suggested that those bereaved by suicide may experience growth post trauma (Feigelman, Jordan, & Gorman, 2009; Fielden, 2003; Murphy et al., 2003c), and the present study supports that although posttraumatic growth may occur in the suicide bereaved, the way individuals experience this growth does not entirely fit with Tedeschi and Calhoun’s theory. Alternative explanations for the use of the model of posttraumatic growth for examining the suicide bereaved will be explored based on each hypothesis. Next, future research directions and considerations for clinical practice will be considered. Finally, strengths and limitations of the present study will be discussed.

The Relationship Between Time Since Loss and Posttraumatic Growth

The theory of posttraumatic growth, as identified by Tedeschi and Calhoun (1995) and previous research (Fiegleman et al., 2009, Fielden et al., 2003, Murphy et al., 2003) suggests that time is essential in order for growth to occur. Specifically, Fiegleman et al. (2009) reported that in their study, participants whose loss to suicide was more distal reported more personal growth than those whose loss was more recent. The authors also reported that participants who reported higher levels of growth also reported lower levels of suicidality, mental health problems, and grief. Other researchers reported similar outcomes to that of Fiegleman et al. For instance, Fielden et al. (2003) reported that the
longer since their participants had lost their loved one to suicide, the more they reported signs that they needed to grow from their loss. Murphy et al. (2003) also reported a similar finding that within one year 12% of participants in their study reported having found meaning in their loved one’s suicide. This number increased to 57% within five years of the loss. Finally, Murphy et al. stated that those people who reported finding meaning also reported less distress.

Similar to the results of Murphy et al. (2003) and Fielden et al. (2003), Hypothesis 1 predicted that individuals whose loss to suicide was more recent would report less posttraumatic growth than those whose loss to suicide was less recent. However, in the present sample, responses on the PTGI were not correlated with time since loss, which does not support the hypothesis. It is unclear why the data in the present study failed to support this hypothesis. One possible explanation is related to the nature of the study sample. For example, participants in the present study reported a relatively high level of PTG (M = 75.18, SD = 22.41) when compared with other studies of individuals who experienced trauma (Harms & Talbot, 2001, M = 44.86, SD = 19.40). However, the current data are consistent with scores reported by Tedeschi and Calhoun (2004; M = 83, SD not reported). Although participant responses on the PTGI in the present study resulted in a range of PTGI scores, it is possible that the lack of relationship between time and posttraumatic growth could be a function of a restricted range of scores. Given that the mean of the PTGI is relatively high (M = 75.18) and with a smaller standard deviation (SD = 22.41), the majority of participants obtained scores on the PTGI between 52.77 and 97.59 (± 1 standard deviation), indicating that most individuals reported significant amounts of PTG and very few participants reported little to no PTG.
This restricted range is likely to have resulted in the lack of significant correlations to other study measures in the present study. Although the present data do not support Hypothesis 1 entirely, the data do suggest that PTG may occur in individuals bereaved by suicide.

It is notable that the current data suggest that individuals who are bereaved by suicide do experience posttraumatic growth; it just appears to not be in relation to the time since their loss to suicide as predicted. Feigelman et al. (2009) reported that participants in their study suggested that there was a slight drop in growth in the first year after loss, but then it increased steadily until the end of their data collection, five years post-loss. In addition, Feigelman et al. reported that two-thirds of the parents who lost a child to suicide five or more years prior to the data collection evidenced growth that was above the sample mean. As such, Feigelman et al.’s findings are consistent with findings of the present study, that individuals bereaved by suicide do experience growth as a result of their loss. Given that the mean time since loss of the present sample is approximately seven and a half years, it is possible that the lack of relationship between time since loss and growth is because over half of the participants have exceeded the maximum PTG score of Fiegelman’s range of five years—in other words, the majority of the participants in the present study have attained the level of growth that Fiegelman et al. observed at five years. One may hypothesize that the relationship between time since loss and growth beyond five years since loss by suicide is different from the pattern observed by Feigelman et al., explaining why the present study did not replicate these results. Future research can evaluate this question more accurately. The present study also evaluated the relationship between distress and growth.
The Relationship Between Distress and Growth

Research has indicated that PTG can occur only in the presence of some level of distress (Tedeschi & Calhoun, 1995). Solomon and Dekel (2007) reported that the amount of distress an individual experiences and the amount of growth they report are significantly related. Specifically, they identified a curvilinear relationship between the two such that those with very high or very low levels of distress do not experience as much growth as those who experience moderate levels of distress. Hypothesis 2 predicted that, consistent with Solomon and Dekel’s study, there would be a curvilinear relationship between posttraumatic growth and distress. The results of the curvilinear regression analyses, however, only partially supported this hypothesis. It is unclear why this relationship was not fully replicated in the present study. Although, as mentioned previously, the generally high mean score on the PTGI may have caused the lack of a stronger relationship. In addition, the study conducted by Solomon and Dekel utilized a version of the PTGI that had been translated into Hebrew. It is possible that something involving the translation process influenced the functioning of the measure, leading to their results. In other words, there is a possibility that there were changes in the PTGI due to the translation into Hebrew, such as a vocabulary bias or a fundamental alteration to the meanings of items that resulted in a curvilinear relationship between distress and growth.

Another possibility is that the smaller sample size \(n = 103\) resulted in a unique result that is not replicated in the larger sample of the present study. Finally, it is also possible that selection bias impacted the results of the present study. Perhaps individuals who experienced particularly low levels of distress or growth did not feel compelled to
complete the survey, as their experience of bereavement was not distressing enough to motivate them to participate. It is also possible that individuals who experienced high levels of distress did not feel they could participate without greatly increasing their overall level of distress and thus they chose not to complete the survey. In addition to exploring the relationships between distress and growth, another area explored by the present study is that of emotional closeness and its relationship to both growth and distress.

Emotional Closeness and Growth and Distress

Research about the experiences of those bereaved by suicide has repeatedly shown that this type of loss may lead to significant amounts of distress (Mitchell et al., 2004). For example, Mitchell et al.´s (2004) study indicated that individuals who experienced the loss of a loved one to suicide often experienced complicated grief, a more intense and extended form of grief. Their study indicated that the closer an individual was to the person who died by suicide, the higher their self-reported level of complicated grief. For instance, persons who lost spouses to suicide reported more complicated grief than those who lost a friend or coworker to suicide. Anticipating a similar result in the present study, Hypothesis 3 predicted that participants who reported that they felt more emotionally close to those who died by suicide would also report higher levels of distress. Tedeschi and Calhoun (1995) hypothesized that a certain level of distress needed to be present in order for the process of PTG to occur. In other words, if the individual is only minimally or not distressed by the experience, there is little or no need for them to engage in processing of the event; a critical component to the
development of growth. As such, Hypothesis 3 also stated that individuals who were closer to those who died by suicide would also experience higher levels of PTG.

The correlation analyses partially supported Hypothesis 3. The results suggest that there is no relationship between how emotionally close the individual who died by suicide was to the participant and how much growth they experienced as a result of their loss. It is unclear why this result, which does not support Hypothesis 3, is observed in the present data. It is possible that individuals who have lost someone extremely close to them may experience too much distress to experience or report growth from their loss. Another possible explanation is related to the fact that the mean time since loss for individuals in the present study was approximately seven and a half years. It is possible that persons were unable to connect their loss to suicide with the growth that they experienced, given that the loss was long ago.

However, it is also important to recall that Tedeschi and Calhoun (1995) acknowledge that individuals who experience trauma experience both distress and growth. While Tedeschi and Calhoun do hypothesize that as growth increases, distress is likely to decrease, they do not state that distress will be absent if growth occurs. In the present study, persons bereaved by the suicide of someone emotionally close to them reported higher levels of distress in terms of the impact the event has had on them (IES Total score) and negative changes in outlook (CiON), but did not report higher levels of depression (CESD-R). The resulting relationship between negative changes in outlook and the impact of the event support the hypothesis, indicating that, as a participant’s emotional closeness to the individual who died by suicide increased, so did some types of distress. This is consistent with Tedeschi and Calhoun’s theory of PTG. It is also
consistent with past research, including that of Mitchell et al. (2004), DeGroot et al. (2006), and Saarinen et al. (1999). In addition to exploring the relationship between emotional closeness and growth and distress, an additional area of interest explored by the present study is that of what areas of growth are more common for persons who lost loved ones to suicide.

Loss to Suicide and the Domains of Posttraumatic Growth

Research has supported that growth following a traumatic event can occur in relationships with other people. Harms and Talbot (2007) reported that 86% of participants in their study of road trauma survivors reported being able to count on others in times of trouble following their trauma. Participants in Lindqvist et al.’s (2008) study reported having positive support from friends and family following their loss to suicide. Given that the traumatic event experienced involved interpersonal relationships, hypothesis 4 predicted that individuals who lost a loved one to suicide would experience more growth in the area of changed relationships with others as compared to the other areas of growth measured by the PTGI. This hypothesis was not supported. As evidenced by paired sample t-tests, individuals experienced a higher level of growth in the area of changed relationship with others than in only one of the four other areas of growth identified by the PTGI: Spiritual Change.

Although this hypothesis was extrapolated from Tedeschi and Calhoun’s (1995) theory of PTG, its lack of support is not entirely a surprise when evaluated retrospectively. For instance, participants in Dunn and Morrish-Vinders (1987) reported experiencing negative reactions from others in their lives, including insensitive
comments. Participants reported that those close to them withdrew, and even sometimes said hurtful things about the loved one lost to suicide. Given that individuals feel that they receive a lack of support or even harmful interactions from persons in their life following a loss to suicide bereavement (Calhoun et al., 1980, Calhoun et al., 1984, Dunn & Morrish-Vinders, 1987, Wagner & Calhoun, 1991), less growth in the area of Changed Relationship with Others when compared with other areas of growth is also consistent with research of suicide bereavement. In another study, Mitchell et al.’s (2004) study participants reported withdrawal from others and difficulty trusting others. Other groups experiencing traumatic events that involved interpersonal relationships also reported less growth in this area. In other words, it appears that the suicide bereaved either experience both positive changes from loss to suicide in terms of relationships with others (Dunn and Morrish-Vinders, 1987) and negative changes from loss to suicide in terms of relationships with others (Calhoun et al., 1980, Calhoun et al., 1984, Wagner & Calhoun, 1991), or may experience either positive or negative changes as a result of loss to suicide. Other researchers also reported negative changes as a result of loss by suicide. Although participants in the present study reported relatively less growth in the area of Changed Relationship with Others, they reported higher levels of growth in the areas of New Possibilities and Appreciation for life.

The areas of New Possibilities and Appreciation for Life were areas in which participants reported more growth in the present study. The reported higher level of change in terms of New Possibilities and Appreciation for Life are consistent with Begley and Quayle’s (2007) qualitative study in which participants reported that they found new activities to do and felt that the loss to suicide had changed them completely. Participants
in Begley and Quayle’s study also reported that they were more active and focused more on their purpose in life, which they now felt, was to help others. Overall, despite the present study not supporting the original hypothesis, it appears that the results may reflect a conflict or duality in the prior research: between the reported increase in closeness in relationships (Lindqvist et al., 2008) and the reported social difficulties (Calhoun et al., 1980, Calhoun et al., 1984, Wagner & Calhoun, 1991) that can occur as a result of suicide bereavement. In addition to the areas of growth, one who is suicide bereaved may experience another area explored by the present study. That is, the relationship between distress and time since the loss to suicide.

The Relationship Between Distress and Time Since Loss

Research thus far has supported that when an individual experiences a trauma, the distress related to that trauma tends to decrease over time (Büchi et al., 2007; Mitchell et al., 2004). When exploring the experiences of parents who lost children to suicide and other types of death, Murphy et al. (2003a) reported that the distress reported by all parents decreased over their 60-month re-test period. Cerel et al. (1999) studied children bereaved by suicide and found that many negative emotions (i.e. anger, shock, jealousy, etc.) decreased over time. Similarly, Linqvist et al.’s (2008) qualitative study suggested that individuals who have lost a loved one to suicide experience a several-month period of shock, disbelief, and confusion before it begins to subside.

In line with the above research and Tedeschi and Calhoun’s (1995) theory of PTG, hypothesis five predicted that individuals whose suicide loss was more recent would experience more distress. This hypothesis was supported using correlation analyses. In
the present study, individuals who had lost their loved one to suicide more recently reported more distress than those whose loss was longer ago, consistent with Tedeschi and Calhoun’s theory. Tedeschi and Calhoun hypothesized that individuals had to endure distress in order to experience growth, but suggested that the distress should decrease over time. This is supported by the present research. In addition to whether distress due to bereavement by suicide decreases over time, the present study evaluated how seeking help is related to distress and growth.

There were two major outcomes of the present research that were disconcerting. First, the lack of relationship between the amount of time since the loss to suicide and posttraumatic growth that resulted in a lack of support for hypothesis 1 was particularly surprising. Second, the lack of relationship between emotional closeness and posttraumatic growth that resulted in a lack of support for a part of hypothesis 3 was also surprising. It is possible that the theory of PTG is not a viable theory. Given its weak support in the present study, one may conclude that the theory itself is a poor theory. It is also possible that measuring the amount of growth a person experiences without having a baseline prior to the trauma makes little sense. However, following these unexpected results, which did not support central tenets of the theory of posttraumatic growth (Tedeschi & Calhoun, 1995); additional analyses were conducted to determine the possibility of other factors impacting the outcome.

The Relationship of Seeking Help to Distress and Growth

Given the surprising results of the study, particularly the lack of relationship between growth and time since loss and lack of relationship between distress and growth,
it was questioned whether the present sample was unique in any way. Specifically, it was questioned whether the large percentage of individuals in the present study who had sought support group help and/or professional help impacted the outcome. It is possible that individuals had experienced growth due to their participation in support groups or due to their experiences of professional help. As such, the relationship of seeking help to distress and growth was evaluated via a Multivariate Analysis of Variance (MANOVA). The MANOVA indicated that individuals who participated in support groups reported increased levels of distress in terms of how much the event impacted their life (IES total score) as well as increased negative changes in their outlook when compared with those who did not participate in support groups. Additionally, individuals who reported involvement in a support group were more likely to report a higher level of emotional closeness to the individual who died by suicide than those who were not involved in a support group. Individuals who were involved in a support group also tended to be younger than those who reported no involvement in support groups. Individuals who experienced loss to suicide at a younger age may have fewer coping resources, which may lead them to seek support in the form of a support group, which may be related to the increased levels of distress compared to those not seeking support group help. Given that the participants were recruited primarily from Facebook®, it may be hypothesized that individuals who have lost a loved one to suicide seek out social support online rather than in-person. This may be problematic because it may not be as effective as seeking in-person support, which may cause the higher level of distress in the support-group involved individuals. There is little research on the efficacy and effectiveness of suicide bereavement support groups. However, Fiegelman, Gorman, Beal, and Jordan (2008)
contrasted those who used internet support groups with those who participated in face-to-face groups. Results indicated that those who used internet support groups reported higher levels of depression, grief difficulties, and more stigmatization from families and friends than those who attended face-to-face support groups. This result suggests that individuals seeking out support may be seeking it from less effective means. It can also be hypothesized that individuals who seek support groups are initially more distressed than those who do not seek support groups. Given that no premorbid measure of distress or mental illness was given to individuals who responded to the study, it is possible that the support-group seeking participants’ overall level of distress has decreased significantly, but since they were more distressed overall prior to their participation in the support group, their responses to the present study still present higher overall levels of distress. This perplexing result, along with many other questions raised from the present study, clearly deserves further exploration in future research.

The Confirmatory Factor Analysis (CFA) completed on the five-domain model of PTG was conducted to determine whether Tedeschi and Calhoun’s (1996) model of PTG adequately fit the present data. All study indices suggested that Tedeschi and Calhoun’s (1996) model did not adequately fit the data (RMSEA = .13; CFI = .72; GFI = .74; NFI = .67; $\chi^2$ (179) = 1155.86, $p < .0001$; $\chi^2$/df = 6.45). This result suggested that the model is not a good fit for the data. This finding is echoed by Anderson and Lopez-Baez’s (2008) study, who reported that 1, 2, 3, or 5-factor models all fit the data equally well, indicating that the data does not present strong support for Tedeschi and Calhoun’s model. The variability in results across study calls into serious question the model of PTG presented
in the PTGI itself. Further exploration of this issue should be conducted before the PTGI is utilized in further studies.

**Implications for Research**

It is clear from the present research that individuals bereaved by suicide do experience a significant amount of distress from a loss to suicide. While the growth they experience did not follow predicted patterns in the present research, its presence is suggested by the relatively high overall scores on the PTGI as well as via other research (Fiegelman et al., 2009). It is important to recall that this study was conducted in what is still the early phase of exploring the experiences of the suicide bereaved. It is essential that continued scientific exploration of the experiences continue so that the experience of suicide bereavement can be understood more fully.

One major consideration is whether the PTGI, the primary measure of positive sequelae in the present study, is appropriate for use with the suicide bereaved or if it is an appropriate measure of growth at all. It is possible that the suicide bereaved experience growth in areas that are not accurately measured by the PTGI. Studies previously cited (Fiegelman et al., 2009) did not utilize the PTGI in their study to assess growth. Perhaps other measures of growth following a traumatic event would be more appropriate for use with the suicide bereaved. Another major consideration is whether the PTGI and its inconsistent factor structure (Brunet et al., 2010, Linley et al., 2007) is an appropriate measure to use in research altogether. The present study evaluated the proposed factor structure of the PTGI and found that the model was a poor fit for the data. Attempts were made to address this by focusing primarily on the total score of the PTGI, but perhaps a
measure with a more stable factor structure and data that better fits the model is appropriate. One major area of future research is more fully exploring the PTGI and whether its use is supported. Reevaluating the factor structure of the PTGI is essential if it is to be used in future studies. Alternatively, if the PTGI does not prove as a useful measure of the theory, it may be time to develop a new measure along with a stable model of growth following traumatic events. Researchers interested in the experience of the suicide bereaved in particular may seek to develop a measure of suicide-bereavement related growth.

Another future direction for research can utilize other types of measures that may provide different perspectives on the individuals who have lost loved ones to suicide. It is possible that the measures selected for the present study do not accurately reflect the experiences of those bereaved by suicide. Using different measures to both explore distress and growth may provide different outcomes that may help researchers to better understand the experiences of the suicide bereaved. Specifically, developing or finding a different measure of emotional closeness may allow for a stronger relationship between the Posttraumatic Growth Inventory or another measure of growth. It may also be useful to evaluate the role of guilt in expressions of growth. It is possible that the suicide bereaved are reluctant to report growth following the trauma of suicide due to guilt related to the suicide. The struggle with guilt could interfere with the possible growth the individual could experience, which may have also reduced the report of growth in the present study.

Given the cross-sectional nature of the present study, there are some limitations to applications within the present sample. As such, one future direction research may take is
to study the experience of those bereaved by suicide longitudinally. This would more clearly describe the changes that those bereaved by suicide experience. Without evaluating the experience of the suicide bereaved longitudinally, it is difficult to know if some differences in individuals bereaved by suicide are due to time or due to some other characteristic of different generations.

The present data suggests that individuals who seek support from support groups report more distress than those who do not seek support from support groups. As this result suggests that those who seek support groups experience or at least report more distress than those who do not, looking more formally into support groups is an excellent avenue for further research. For instance, evaluating the experience of individuals in support groups by taking measures at the beginning and later on during their support group experiences would help to clarify their experience. In addition, to study the efficacy of the support groups themselves would also be helpful. Further, determining what activities or components in support groups are and are not helpful to those who are struggling with suicide bereavement would also be an excellent future area of research. Overall, the present study’s basis in theory and large sample size make it a good beginning step into the future of research of the suicide bereaved.

Implications for Practice

In terms of how the present study may inform clinical practice, it is clear that individuals who experience a loss to suicide suffer from significant distress (Kuramoto et al., 2009; Mitchayell et al., 2009; Murphy et al., 2003a; Rudestam, 1977). Clinicians can anticipate that those who have lost loved ones to suicide may experience a wide array of
distress symptoms, ranging from depressive symptoms (Murphy et al. 2003a; Murphy et al. 2003b) to PTSD symptoms (Kuramoto et al., 2009; Mitchell et al., 2009), from social isolation (Calhoun et al., 1980; Calhoun et al., 1984) to physical symptoms (Rudestam, 1977; Saarinen et al., 1999) and more (Shepherd and Barraclough, 1976). It is also important to note that these symptoms can persist for a long period of time (Kuramoto et al., 2009; Mitchell et al., 2009). As such, clinicians should be aware of and sensitive to a wide array of symptoms and anticipate everything from trauma-related symptoms to intense depression to conflict and distance within a family. Individuals who lose a loved one to suicide often feel socially isolated and feel stigmatized by their friends and others in their lives (Calhoun et al, 1980; Calhoun et al, 1984). Clinicians should be sensitive to this and encourage continued connection with others.

Clinicians should also be aware that females may be more at risk to be bereaved by suicide, given the increased rate of suicide completion for men as compared to women (McIntosh, 2009). As such, some of the results of the present study may not apply to men in particular. For example, it is possible that men experience less distress overall in response to a loss by suicide, or their pattern of distress following bereavement by suicide may be different. It also indicates that women bereaved by suicide utilize support groups more frequently, indicating that outreach to males bereaved by suicide may be extremely important. Similarly, given the present sample’s racial homogeneity, it may be important to reach out to people of color who have lost loved ones to suicide, as it appears that they are not as represented in the support groups reached by the present study and, by extension, perhaps not well represented in support groups overall. As such, outreach
within traditionally African American communities or neighborhoods may identify a relatively unaided population in terms of postvention following a suicide.

Clinicians should be aware, that loss and resulting distress is not necessarily only a negative outcome. Persons who have lost loved ones to suicide may experience growth following the loss of a loved one to suicide (Begley & Qualye, 2007; Fiegelman et al., 2009; Fielden, 2003). The present research suggests that the areas of growth most likely in persons bereaved by suicide are those of new possibilities (i.e. finding new activities, life goals, etc.) and personal strength (i.e. feeling stronger than they have before). Continuing to build upon these more likely areas of growth while also attending to the less-common areas of growth can help the bereaved to come out of the crisis stronger than the entered it.

Practical applications of the present research also includes the understanding that individuals who report that they were more emotionally close to the loved one lost to suicide are likely to report significantly higher levels of distress. Overall, it is clear that individuals who lose someone to suicide can experience significant distress, but also may grow following their loss. Clinicians should be supportive both of this loss and the possible growth.

Strengths and Limitations

There are also several limitations to the present study. First, the demographic variables of participants did not provide for much variation. Participants in the current study were primarily Caucasian (92%), married (52.9%), females (88%) who held either a college degree or a professional degree (60.6%). Given the overwhelming proportion of
females in the present sample, future studies may wish to explore the impact of suicide bereavement on males. It is likely that, since men complete suicide about three times more often than women (McIntosh, 2009), women are more often left as bereaved by suicide than men. Individuals who self-identified as African American (n = 1; 0.3%) or Latino/a (n = 7; 2.2%) were significantly under-represented in the present sample.

Second, the sample was drawn entirely from individuals who utilized internet access. This likely reflected their socioeconomic status as well as the level of social connectedness. Given that Facebook® was the primary method that individuals heard about the present study, it is clear that the persons engaging in the study were highly likely to be socially connected on some level. Individuals with less social support may have a different experience of loss. In future studies, it may be important to reach out to people of color and other ethnic backgrounds. This may be effectively done by posting on diversity-related websites, listservs, or by publicizing at traditionally African American churches, clubs, or organizations. Third, over half of the participants had sought either lay-person led support groups (64.3%) or professional help (58.7%) or both relating to their loss to suicide. This may have impacted the current results, either in decreasing the overall amount of distress or increasing the amount of posttraumatic growth.

Additionally, given the cross-section nature of the study, there is no longitudinal information to evaluate the experiences of individuals over time. Another limitation is that there may be a self-selection bias, in that individuals who participated in the study may have had significantly different experiences than those who did not participate.

As previously mentioned, it is also possible that the use of the PTGI as the sole measure of posttraumatic growth may be a limitation to the present study. Given its
unstable factor structure (Brunet et al., 2010, Linley et al., 2007), and performance in the present study, it is possible that the measure is not valid for use in the present sample or for future research and its use should be weighed carefully in the future.

The present study has several significant strengths. First, given that many studies of suicide bereaved individuals suffer from a small sample size, the present study’s larger sample size of 325 is strength. In addition, while some studies of PTG utilize samples from college students and other convenient participants, the present study evaluated the experiences of the suicide bereaved directly. Additionally, the present study, unlike much of previous research, developed study questions grounded in Tedeschi and Calhoun’s (1995) theory of posttraumatic growth. Being grounded in a theory allows the development of research questions from a sturdy foundation. Given the complexity of the theory of PTG when balancing the tightrope between the experience of distress and growth, it can be difficult to determine exactly how the theory is most accurately applied. However, the application of the experience of suicide bereaved individuals fits within the theory of posttraumatic growth may not follow the patterns anticipated by Tedeschi and Calhoun. Both distress and growth are present within the experience of the suicide bereaved, overall supporting the theory of PTG’s application to the experience of those bereaved by suicide.

Summary

Overall, the present study supports the main tenet of Tedeschi and Calhoun’s (1995) theory of posttraumatic growth: individuals who experience a traumatic or distressing event can and often do report growth as a result. Prior research suggests that
the bereaved by suicide may experience posttraumatic growth (Feigelman, Jordan, & Gorman, 2009; Fielden, 2003; Murphy et al., 2003c) and the present study supports that posttraumatic growth may occur in the suicide bereaved, but suggests that the way they experience this growth does not entirely fit with Tedeschi and Calhon’s theory. As a result, causes for unexpected results in the present study were discussed. Then, future research directions and applications for clinical practice were discussed. Finally, strengths and limitations of the present study were discussed.
REFERENCES


APPENDICES
APPENDIX A

INFORMED CONSENT FORM

You are invited to participate in a research project being conducted by Devon Whitehead, a doctoral candidate in Counseling Psychology at The University of Akron.

Title of Study: Positive and Negative Sequelae of Bereavement by Suicide

Purpose of the Study: The purpose of this study is to explore the experience of persons who have lost a loved one to suicide. This will be done by completing several different measures that evaluate both positive and negative effects of the experience of bereavement by suicide.

Procedures: Should you decide to participate, you will be asked to complete several questionnaires that are designed to measure psychological distress, personal growth, changes in outlook, and brief demographic questions. Completion of this survey should take about 25 minutes.

Eligibility: You are eligible to participate in this study if you have been bereaved by suicide (i.e. have lost a friend or loved one to suicide), have access to a computer, and are age 18 or above.

Risks and Discomforts: There are minimal foreseeable risks for participating in this study. These risks may be associated with the process of recalling sensitive information related to stressful events or situations you may have experienced following the loss. In the event that you feel emotionally distressed by participation in this study, we encourage you to seek professional assistance or crisis assistance. Information on how to seek out these services will be provided for you at the end of the survey.

Benefits: You will receive no direct benefit from your participation in this study, but your participation may help us better understand the experience of individuals bereaved by suicide.

Right to refuse or withdraw: Your participation in this research is voluntary and you may refuse to participate or discontinue participation at any time, without penalty or loss of benefits to which you are otherwise entitled.
**Anonymous Data Collection:** This survey is anonymous and confidential, meaning that no identifying information will be collected and your responses will not be linked to your name or any identifying information. Also, findings will be reported only in aggregate form. No institution or program will be identified in any presentation of the research findings.

**Who to contact with questions:** If you have any questions concerning this study, you can contact me at dew18@zips.uakron.edu, or my faculty advisor, Dr. James R. Rogers, at jrr1@uakron.edu or at (330) 972-8635. This study is approved by the Institutional Review Board for the Protection of Human Subjects at The University of Akron. Questions regarding human subjects’ rights can also be directed to the UA Institutional Review Board, Office of Research Services and Sponsored Programs, (330) 972-7666.

**Acceptance:** I have read the information provided. I voluntarily agree to participate in this study. My completion of this survey will serve as my consent. I may print a copy of this consent statement for future reference. Please click on the “Continue to Next Page” to start the survey!
APPENDIX B

INFORMATION REGARDING COUNSELING SERVICES

Thank you for your participation in this study. If the questions on this survey have been emotionally disturbing or troubling for you, I strongly urge you to seek attention from a mental health professional.

- Find-a-Psychologist: http://locator.apa.org/: a free website that allows you to search for psychologists in your area using your zip code and allowing you to specify gender, ages served, and what you wish to be seen for.
- National Suicide Prevention Hotline: 1-800-273-TALK (8255): a no-cost hotline that you may call to discuss any sort of emotional distress or concern, including concerns you have about yourself or others.
- You may also seek support from Suicide Survivor Support Groups:
  - http://www.survivorofsuicide.com/: A paid online support group for those bereaved by suicide.
APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

1. How old are you? _________

2. What is your sex? (circle one) Male  Female  Other ______

3. Marital Status: (circle one) Single/Never Married  Separated  Divorced  Widowed  Married  Cohabitating  Other

4. What is your ethnicity/race?
   a. African American/Black/African Origin
   b. Asian American/Asian Origin/Pacific Islander
   c. Latino-a/Hispanic
   d. American Indian/Alaska Native/Aboriginal Canadian
   e. European Origin/White
   f. Bi-racial/Multiracial
   g. Other (specify) ______________

5. What is the highest level of education you have completed? (circle one)
   a. Some high school
   b. High School Graduate
   c. Some college
   d. College Graduate
   e. Professional Degree
6. When did you lose your loved one to suicide? (Note: if you have lost more than one loved one to suicide, please refer to the suicide loss that was most difficult (i.e. caused the most distress) for you) _______ Years, _______ Months ago. If the loss was less than one month ago, please check here: [ ]

7. How were you related to the person you lost to suicide? ____________________

8. How emotionally close do you feel to the individual who died by suicide?  
1  2   3   4   5  
(not very close)  (fairly close)    (extremely close)

9. Did you seek professional help (i.e. therapist, counselor, minister) to help you deal with your loss?  YES  NO

   If yes, please describe:

   ______________________________________________________________________
   ______________________________________________________________________

10. Did you seek support from others who had lost loved ones to suicide, whether via technological means (i.e. internet, phone) or support groups?  YES  NO

   If yes, please describe:

   ______________________________________________________________________
   ______________________________________________________________________

11. Please describe how you heard about the present survey:

   ______________________________________________________________________
   ______________________________________________________________________
APPENDIX D

POSTTRAUMATIC GROWTH INVENTORY

Indicate for each of the statements below the degree to which this change occurred in your life as a result of your loss by suicide, using the following scale.

1 = I did not experience this change as a result of my crisis.
2 = I experienced this change to a very small degree as a result of my crisis.
3 = I experienced this change to a small degree as a result of my crisis.
4 = I experienced this change to a moderate degree as a result of my crisis.
5 = I experienced this change to a great degree as a result of my crisis.
6 = I experienced this change to a very great degree as a result of my crisis.

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<th>3</th>
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<tbody>
<tr>
<td>1. My priorities about what is important in life.</td>
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<td>2. I’m more likely to try to change things which need changing.</td>
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<td>3. An appreciation for the value of my own life.</td>
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<td>5. A better understanding of spiritual matters.</td>
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<td>6. Knowing that I can count on people in times of trouble.</td>
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<td>7. A sense of closeness with others.</td>
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<td>8. Knowing I can handle difficulties.</td>
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<td>9. A willingness to express my emotions.</td>
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<td>10. Being able to accept the way things work out.</td>
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<td>11. Appreciating each day.</td>
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<td>12. Having compassion for others.</td>
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<td>13. I’m able to do better things with my life.</td>
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<td>14. New opportunities are available which wouldn’t have been otherwise.</td>
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<td>15. Putting effort into my relationships.</td>
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<td>16. I have a stronger religious faith.</td>
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<td>17. I discovered I’m stronger than I thought I was.</td>
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<td>18. I learned a great deal about how wonderful people are.</td>
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<td>19. I developed new interests.</td>
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<td>20. I accept needing others.</td>
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<td>21. I established a new path for my life.</td>
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APPENDIX E

CHANGES IN OUTLOOK QUESTIONNAIRE

Each of the following statements was made by people who experienced stressful and traumatic events in their lives. Please read each one and indicate, by circling the number in the appropriate box, how much you agree or disagree with it AT THE PRESENT TIME, with regard to your loss by suicide:

1 = Strongly disagree, 2 = Disagree, 3 = Disagree a little, 4 = Agree a little, 5 = Agree, 6 = Strongly agree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Disagree a little</th>
<th>Agree a little</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I don’t look forward to the future anymore.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
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<td>2. My life has no meaning anymore.</td>
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<td>3. I no longer feel able to cope with things.</td>
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<td>4. I don’t take life for granted anymore.</td>
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<td>5. I value my relationships much more now.</td>
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<td>6. I feel more experienced about life now.</td>
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<td>7. I don’t worry about death at all anymore.</td>
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<td>8. I live everyday to the full now.</td>
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<td></td>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Disagree a little</td>
<td>Agree a little</td>
<td>Agree</td>
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<td>9. I fear death very much now.</td>
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</tr>
<tr>
<td>10. I look upon each day as a bonus.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I feel as if something bad is just waiting around the corner to happen.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I’m a more understanding and tolerant person now.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I have a greater faith in human nature now.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. I no longer take people or things for granted.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I desperately wish I could turn the clock back to before it happened.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I sometimes think it’s not worth being a good person.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. I have very little trust in other people now.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. I feel very much as if I’m in limbo.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. I have very little trust in myself now.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Disagree a little</td>
<td>Agree a little</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
<td>----------</td>
<td>-------------------</td>
<td>---------------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>20. I feel harder towards other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>21. I am less tolerant of others now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>22. I am much less able to communicate with other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>23. I value other people more now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>24. I am more determined to succeed in life now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>25. Nothing makes me happy anymore.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>26. I feel as if I’m dead from the neck downwards.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
APPENDIX F

SCALE OF EMOTIONAL CLOSENESS (SEC)

The level of closeness we feel to others differs from person to person and over time. Please think about your relationship with the important person who died by suicide while answering the following questions. Using the following scale, circle the number that corresponds to how much you agree with each statement.

7  6  5  4  3          2        1
Very             Very
Strongly                  Strongly
Agree                 Disagree

1. I felt I could share my most intimate feelings with this person. 1  2  3  4  5  6  7
2. I kept my distance emotionally from this person. 1  2  3  4  5  6  7
3. It was very easy to talk to this person. 1  2  3  4  5  6  7
4. I felt close to this person. 1  2  3  4  5  6  7
5. It was difficult to talk with this person. 1  2  3  4  5  6  7
6. This person understood me. 1  2  3  4  5  6  7
7. This person shared his/her most personal thoughts with me. 1  2  3  4  5  6  7

162
Below is a list of the ways you might have felt or behaved. Please check the boxes to tell me how often you have felt this way in the past week or so.

<table>
<thead>
<tr>
<th></th>
<th>LAST WEEK</th>
<th>Nearly every day for 2 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all or less than 1 day</td>
<td>1 to 2 days</td>
</tr>
<tr>
<td>1. My appetite was poor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I could not shake off the blues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I had trouble keeping my mind on what I was doing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I felt depressed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. My sleep was restless</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I felt sad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I could not get going</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Nothing made me happy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I felt like a bad person</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I lost interest in my usual activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I slept much more than usual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I felt like I was moving too slowly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I felt fidgety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I wished I were dead</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I wanted to hurt myself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I was tired all the time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I did not like myself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I lost a lot of weight without trying to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I had a lot of trouble getting to sleep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I could not focus on the important things</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX H

IMPACT OF EVENT SCALE

Indicate how frequently each of these comments were true for you during the past seven days as related to your suicide loss.

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I thought about it when I didn’t mean to 0 1 3 5
2. I avoided letting myself get upset when I thought about or was reminded of it 0 1 3 5
3. I tried to remove it from memory 0 1 3 5
4. I had trouble falling asleep or staying asleep, because of pictures or thoughts about it that came to mind 0 1 3 5
5. I had waves of strong feelings about it 0 1 3 5
6. I had dreams about it 0 1 3 5
7. I stayed away from reminders of it 0 1 3 5
8. I felt as if it hadn’t happened or wasn’t real 0 1 3 5
9. I tried not to talk about it 0 1 3 5
10. Pictures about it popped into my mind 0 1 3 5
11. Other things kept making me think about it 0 1 3 5
12. I was aware that I still had a lot of feelings about it, but I didn’t deal with them 0 1 3 5
13. I tried not to think about it 0 1 3 5
14. Any reminder brought back feelings about it 0 1 3 5
15. My feelings about it were kind of numb 0 1 3 5
APPENDIX I

INSTITUTIONAL REVIEW BOARD APPROVAL

From: Samartgedes,Mary
Sent: Monday, May 16, 2011 10:50 AM
To: kew18@zips.uakron.edu
Cc: Rogers Jr,James R
Subject: WHITEHEAD IRB APPROVAL 20110501

Ms. Whitehead:
Your IRB protocol entitled “Positive and Negative Sequelae of Bereavement by Suicide” (#20110501) has been approved and the approval letter is in the mail to you.*
THE APPROVAL WILL EXPIRE, MAY 16, 2012!
If at that time you intend to renew the project, an application for continuing review must be in our office and approved by the expiration date. There is no grace period.

* If changes are made to the protocol before the expiration date, you must submit an application for continuing review for IRB approval of the modifications. (Present only the form which is in current use. * Old forms will not be accepted.)
* When the project is completed, you must submit a final report form to complete the IRB file. (Present only the form which is current use. Old forms will not be accepted.)
* Please see: http://www.uakron.edu/research/orssp/compliance/IRBApplForms.php
* (So that we may maintain contact with you, forward change of mailing address, phone number or e-mail address to this office.)
Please call if you have questions. Thank you.

Mary Samartgedes, IRB Secretary
The University of Akron
Office of Research Services and Sponsored Programs
302 Buchtel Common
Akron, Ohio 44325-2102
v: 330.972.7666
mary6@uakron.edu<mailto:mary6@uakron.edu>