DEPRESSION, HOPELESSNESS, AND PERCEIVED BURDEN: SUICIDAL TENDENCIES IN DEPRESSED PATIENTS

by

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Depression, Hopelessness, and Perceived Burden: Suicidal Tendencies in Depressed Patients

Abstract

by

NICOLE JUSZCZAK PEAK

The primary focus of the present study was to examine the association between perceived burden and suicide related variables such as depression, hopelessness, and suicidal ideation. The secondary focus of the present study was to examine the psychometric properties of the Perceived Burden Scale, a new scale designed to assess the degree of burden that a person perceives themselves to be. A clinical sample of 81 depressed adults was recruited from a day treatment and outpatient program at a local veterans affairs medical center. Patients were assessed with a structured diagnostic interview and self-report measures assessing perceived burden, depression severity, hopelessness, perceived social support, suicidal ideation, and presence of PTSD. The present study suggests that the newly developed Perceived Burden Scale demonstrates preliminary evidence of reliability and validity. Although perceived burden appeared to be related to suicidal ideation, perceived burden did not relate to suicidal ideation beyond the association between suicidal ideation and hopelessness. Hopelessness was one of the strongest variables related to suicidal ideation when controlling for numerous suicidal risk variables. The findings of the present study underscore the importance of assessing hopelessness as a significant risk factor of potential suicide in depressed individuals.
Introduction

Depression and Suicide

Depression is a significant problem which affects the lives of a substantial amount of the population. About 9.5 percent of the adult US population has a depressive disorder (Regier, Narrow, Rae, Manderscheid, Locke, & Goodwin, 1993) and as many as 16.2% of the population will experience a major depressive episode at some point in their lifetime (Kessler et al., 2003). In addition to being one of the most common mental disorders, depression is also one of the most potentially fatal as approximately 2% to 7% of patients treated for depression die from suicide (Bostwick & Pankratz, 2000). Among people who commit suicide, more than 90 percent have a diagnosable mental disorder, most commonly a depressive disorder (Conwell & Brent, 1995). In addition, over a third of patients who receive emergency treatment for a suicide attempt carry a diagnosis of major depressive disorder at the time of the attempt (Suominen et al, 1996). Thus, carrying a diagnosis of depression puts a person at risk for suicidal behavior.

Suicide and Associated Risks

In 2005, there were approximately 2.5 million deaths in the US. Of these deaths 32,637 were due to suicide, making suicide the 11th leading cause of death in the United States (Kung, Hoyert, Xu, & Murphy, 2008) and one of the leading causes of death worldwide (Kessler, Berglund, Borges, Nock, & Wang, 2005). In addition, there are an estimated 816,000 annual suicide attempts, which translates into one attempt every 39 seconds (McIntosh, 2005). Given such statistics, it is no wonder that the World Health Organization (1996) and the US surgeon general (US Public Health Service, 1999) have declared suicide a public health problem and highlight the need for more comprehensive
data on the occurrence of suicide, attempts, and identifying associated risk variables in
order to reduce suicide and suicide-related behaviors.

Many demographic factors have been associated with increased suicidal risk such
as: being Caucasian (Peters, Kochanek, & Murphy, 1998), male (Brown, Beck, Steer, &
Grisham, 2000; Kessler et al., 2005), unmarried or widowed (Pearson & Brown, 2000),
unemployed, and older (McIntosh, 1995). Other risk factors for suicide include:
previous psychiatric treatment (Allebeck & Allgulander, 1990), previous suicide attempts
(Conwell, Duberstein, Cox, Herrmann, Forbes, & Cain, 1998), a family history of mental
disorders (Brown et al., 2000), lowered social support (Gunnell, Harbord, Singleton,
Jenkins, & Lewis, 2004), and current suicidal ideation (McIntosh, 1995). In addition, a
diagnosis of depression places an individual at significant risk for suicide (Conwell et al.,
1996). More specifically, once suicidal ideation becomes a feature of depression, it can
become one of the most persistent symptoms across depressive episodes (Williams,
Crane, Barnhofer, Van der Does, & Segal, 2006) making a person with a recurrent major
depressive disorder highly susceptible to suicide (Brown et al, 2000).

*Suicide in Veterans*

The link between military service and suicide has been of clinical interest ever
since Durkheim (1897) first reported elevated rates of suicide among European military
men that were up to 10 times those among male civilians of comparable age. The
demographic characteristics of the Department of Veterans Affairs (VA) population
coincide with many of the risk variables for suicide. Most veterans are White males, with
the largest group of veterans falling between the ages of 45 and 64 (Department of
Veterans Affairs, 2001). In addition, veterans have an increased rate of medical (Agha,
Lofgren, VanRuiswyk, & Layde, 2000; Singh et al., 2005) and psychiatric (Hankin, Sprio, Miller, & Kazis, 1999) comorbidities. The prevalence of significant depressive symptoms among veterans is 31%, 2 to 5-times higher than among the general US population (Hankin, Sprio, Miller, & Kazis, 1999). Veterans are considered to have diminished social support systems as evidenced by their high rate of homelessness and lowered economic status (Rosenheck, Frisman, & Chung, 1994). Moreover, veterans appear to have a higher likelihood of owning guns (Freeman, Clothier, Thornton, & Keesee, 1994; Freeman, Roca, & Kimbrell, 2003) and are also highly trained and experienced in the use of firearms putting themselves at increased risk, as research has revealed that firearms are used in the majority of suicides (52.1%) (Kung, Hoyert, Xu, & Murphy, 2008). Given these demographics, one would expect a higher rate of suicide in the veteran population.

Some studies have reported that suicide rates among veterans do not statistically differ from rates among the general population (Thompson, Kane, Sayers, Brown, Coyne, & Katz, 2002). However such studies have failed to consider that many veteran suicides go unreported to the VA (Lambert & Fowler, 1997). Numerous studies indicate that veterans are actually at a higher risk for suicide than other groups. Within VA treatment populations, it has been found that veterans are more likely to die by suicide in comparison to the general adult population (Desai, Dausey, & Rosenheck, 2005). A prospective population-based study found that in the US general population, veterans (regardless of their connection to the VA) were more likely to die by suicide in comparison to the general population (Kaplan, Huguet, McFarland, & Newsom, 2007). Thus, being a veteran increases the chances of dying by suicide. Moreover, the risk is
compounded by being a veteran with a mental disorder as mental health VA patients are at an even greater risk of dying by suicide in comparison to non-mental health VA patients (Thompson, Katz, Kane, and Sayers, 2002). Previous research has also demonstrated an elevated risk of suicide among veterans with PTSD in comparison to the general population (Hendin & Haas, 1991) and in comparison to veterans without PTSD (Freeman, Roca, & Moore, 2000). In a large nationally representative longitudinal data set, the rates of suicide among the depressed VA treatment population were 7-8 times higher than among the general population (Zivin et al, 2007). Unfortunately, US veterans also have a higher probability of using extremely lethal modes of suicide such as firearms when compared with non-veterans (Kaplan, Huguet, McFarland, & Newsom, 2007).

The VA provides the largest integrated mental health program in the United States (Hollingsworth & Bondy, 1990). Within the VA system, outcomes such as suicide are not only devastating to patients, their families, and providers but are also compounded by the intense public scrutiny associated with such a facility. Thus, it is important to identify the risk factors in order to provide early intervention for these individuals. Surprisingly, there has been relatively little empirical work done on suicide within the VA population.

Early Theories on Suicide

Emile Durkheim’s (1897) theory of suicide focused on the variables of social integration and social regulation as causal elements. He examined suicide rates records in and around France and found that some people were more likely than others to commit suicide. He found that men, Protestants, wealthy people, and unmarried people had higher suicide rates compared to women, Catholics and Jews, the poor, and married
people. According to Durkheim (1897), these differences corresponded to people’s degree of social integration. More specifically, people with strong social ties committed suicide less frequently. People who were more socially isolated and individualistic committed suicide more often. He believed that social integration provided ties that prevented the individual from feeling alone and isolated. Likewise, social regulation provided a strong set of values by which to live. Thus, Durkheim (1897) argued that societies with low degrees of social integration and regulation would have higher suicide rates.

The Freudian theory of depression and suicide postulated that any attempt to understand suicide needed to also address the place of aggression within the human psyche (Freud, 1917). Freud believed that aggression was part of the self-preservative instinct. He stated that suicide resulted from blocked and unconscious aggression which was then turned inward upon the self (Freud, 1917). Additionally, suicide was viewed as a form of acting out and an attempt to gain relief from a childhood trauma (Freud, 1917).

More recently, the cognitive model of suicide stipulates that people hold beliefs that distort the construction of their experiences leading to a variety of cognitive errors. Thus, distorted cognition influences negative emotional experiences and maladaptive responses such as suicide (Beck, 1967). These deeply held beliefs are rooted in schemas which help people organize and make sense of the environments that they encounter in their daily lives. Cognitive theory indicates that schemas are highly ingrained, are rooted in early experiences, and develop from messages received from significant others during childhood and adolescence.
Hopelessness and Suicide

Within the cognitive model, hopelessness is one type of schema than can prompt suicide-relevant cognitive processes. The degree of negative expectation or hopelessness experienced by a depressed individual has been previously suggested as a cognitive indicator of eventual suicide (Beck, 1963) and has since been established as one of the strongest indicators. In a prospective study, outpatients who eventually committed suicide endorsed significantly higher levels of hopelessness than did patients who did not commit suicide or who died from natural causes (Beck, Brown, Berchick, Stewart, & Steer, 1990). Subsequent research has reported similar findings (Niméus, Träskman-Bendz, & Alsén, 1996). More compelling results have been found among longer longitudinal designs. In a ten-year prospective follow-up study, Beck, Steer, and Kovacs (1985), found that among hospitalized patients with suicidal ideation, hopelessness was predictive of actual suicide. In a twenty year prospective follow-up study, Brown, Beck, Steer and Grisham (2000), found that patients who scored a 9 or above on the Beck Hopelessness Scale were approximately four times more likely than patients who scored 8 or below to commit suicide within a given year of follow-up.

More specific research has indicated that patients whose hopelessness remains chronic and does not significantly change with psychiatric treatment may be more likely to commit suicide (Dahlsgaard, Beck, & Brown, 1998). Likewise, chronic hopelessness is more predictive of suicide attempts than periodic high levels of hopelessness (Young et al, 1996).

Defining Perceived Burden
Not only are depressed individuals burdened from their symptoms of depression (Bulik, Carpenter, Kupfer, & Frank, 1990), but they also may perceive themselves to be a burden onto others. Perceived burden refers to the feelings of ineffectiveness and incompetence experienced by depressed individuals where they perceive their ineffectiveness to negatively impact or “drag down” others while experiencing these feelings to be stable and permanent (Joiner, 2005). Contemporary research on the relationship between perceived burden and suicidality stems from early research stipulating that humans have a tendency towards self-preservation (deCatanzaro, 1984, 1991, 1995). According to this evolutionary theory on suicide, when people perceive themselves as a burden onto others, especially close relations, the tendency towards self-preservation is disrupted. Instead, people who perceive themselves to be a burden become susceptible to suicidal ideation as they no longer perceive themselves to be productive members and believe that others would be better off without them. According to this model, suicide would have been advantageous by conserving resources for more productive members.

In defining perceived burden, it is also important to consider where such feelings of inadequacy or ineffectiveness might stem from. Mental illness, just like a physical illness, is not solely the patient’s problem as it can often impact other people in the social network. During stressful encounters, such as the stress of dealing with a depressive episode, people draw on a variety of resources including their social support system to aid them in coping (Hinrichsen, 1991; Lazarus, 1984). Adults who are depressed, especially those who experience recurring depressive episodes, are more likely to overextend their supportive resources causing strain and disruption in family life (Jacob,
Shifts in family dynamics may occur as the spouse and/or family may have to assume the responsibilities of daily living such as preparing food, paying bills, child-rearing, and housekeeping. Incapacitated by the depression and unable to reciprocate, the depressed person may experience feelings of perceived burden. In addition, the receipt of supportive messages from the family may be mixed with the receipt of negative/critical statements, possibly due to the feelings of frustration, anger, and resentment on the part of the supporters who are not having their needs met (Crowe, 2004). Research has found that this mixture of mixed support increases a person’s suicidal ideation (Brown & Vinokus, 2003). Depressed people must contend with their own emotional pain as well as how their emotions negatively impact others. Void of alternative options, depressed individuals might perceive that they are an unbearable burden on their family, friends, and society thus suicide becomes their only solution.

_Pereceived Burden and Suicide_

There is a limited amount of research that has examined perceived burden. However, of the research that has been conducted, perceived burden has been found to significantly relate to suicidal behavior. deCatanzaro (1984) assessed perceived burden along with other related variables in 711 individuals from the general public and in 821 university students. Burden was measured by whether individuals felt that their family would be better off without them. A dependent variable was formed from a composite score of four questions relating to suicidal ideation, suicide contemplation, attempted suicide, and discontentment with existence. Perceived burden was a significant predictor of suicide risk for both the general public (all ages) and for university students. In another study, deCatanzaro (1995) assessed perceived burden to family, and perceived
contributions to family and society. A mixed sample of elderly individuals, psychiatric inpatients, male prisoners, and community dwelling homosexuals were included in the study, making a total of 796 participants. Perceived burden was assessed by the item “do you consider yourself to be a burden to family?” For all groups (excluding the community dwelling homosexuals), perceived burden was significantly and positively correlated with suicidal ideation.

deCatanzaro’s model of suicide (1984, 1991, 1995) was evaluated in another study (Brown, Dahlen, Mills, Rick, & Biblarz, 1999). A sample of 175 undergraduate college students participated in a study that assessed depression, hopelessness, suicidal ideation and behavior, and “benefit to kin”. Participants were asked to rate: their burden to the family, the impact of their death on the family, their contributions and assistance to the family, and their family’s dependence on them for emotional or social support. Participants with lower benefit to kin (higher levels of perceived burden) were more likely than others to report higher levels of depression, hopelessness, and suicidal ideation and behavior. In addition, benefit to kin was the strongest predictor of depression and the only significant predictor of hopelessness.

Other researchers have included investigations on the association between perceived burden and suicidal ideation in their studies among different populations. Motto and Bostrom (1990) attempted to identify the characteristics of individuals known to be at risk for suicide. A sample of psychiatric inpatients who were hospitalized for depression and/or suicidal risk were followed and finally divided into two groups: those that had committed suicide and those that had not. Feeling like a burden to others was found to be one of nine significant high-risk predictors of suicide. Furthermore, those
who felt like they were a burden to others were 2.49 times more likely to commit suicide within 60 days of discharge than those who did not experience themselves as a burden to others (Motto & Bostrom, 1990). A similar study examined how groups of outpatient adolescents differed on their sense of expendability—the sense of being unwanted or a burden to their family (Woznica & Shapiro, 1990). A sample of forty adolescents was divided into two groups: those who had a history of suicide attempts/high suicidal ideation and those with no history of suicidal behavior/suicidal ideation. Adolescents who had a previous history of suicide attempts/high suicidal ideation endorsed significantly higher feelings of expendability (Woznica & Shapiro, 1990).

More recently, a theory that incorporates earlier research on perceived burden and cognitive risk factors more specific to suicidal ideation and suicide attempts is the interpersonal-psychological theory of suicide risk (Joiner, 2005). The theory proposes three main criteria that increase the chances of suicidal behavior, these include (1) the ability to self-injure, (2) social disconnection, and (3) perceived burden (Joiner, 2005). Although several studies have looked at the different components of this theory, only a handful have focused specifically on perceived burden.

Perceived burden was investigated by comparing two groups of suicide notes, 20 of which were left by suicide completers, and 20 of which were written by suicide attempters (Joiner, Pettit, Walker, Voelz, & Cruz, 2002). Suicide notes were rated on sense of perceived burden, hopelessness, view that suicide would help control the note-writer’s negative emotions, view that suicide would help regulate the note writer’s interpersonal relations, and sense of general emotional pain. Suicide completers endorsed more feelings of perceived burden than did attempters. Moreover, when
controlling for other possible confounding variables, the correlation between burden and completer/attempter status was significantly greater than the correlations between the other variables (including hopelessness) and completer/attempter status. In a separate study, the same group of researchers similarly rated a separate community sample of 40 completed suicide notes, half of which were left by men and the other half of which were left by women (Joiner, Pettit, Walker, Voelz, & Cruz, 2002). In addition, the researchers rated the notes on lethality of suicide method. The results of the study indicated that burden was the only dimension to correlate significantly with choosing a more lethal means of suicide. Thus, those individuals using more lethal means to take their life endorsed more feelings of perceived burden than those using relatively less lethal means. In addition, when controlling for other possible confounding variables, the correlation between burden and lethality was significantly greater than the correlations between the other variables and lethality.

In another study, the purpose was to evaluate the association between perceived burden and key suicide-related variables (Van Orden, Lynam, Hollar, & Joiner, 2006). Self-report questionnaires were completed by adult outpatients in a psychology clinic. Significant associations were found between perceived burden and past suicide attempts. Significant associations were also found between perceived burden and current suicidal ideation. In addition, perceived burden remained a significant predictor of suicidality indicators above and beyond the contribution of depressive symptoms and hopelessness (Van Orden, Lynam, Hollar, & Joiner, 2006). In a series of studies using both a sample of adult outpatients in a psychology clinic and a sample of college students, perceived burden on its own was significantly associated with current suicidal symptoms and
significantly associated with clinician rated risk for suicide (Van Orden, Witte, Gordon, Bender, & Joiner, 2008).

Other Research on Perceived Burden

Other studies have been conducted that report strong associations between perceived burden and suicidal behavior, although perceived burden has not been the primary focus. One survey asked a sample of psychiatrists to report on clinical, social, and demographic features of patients who had killed themselves while under their care (O’Reilly, Truant & Donaldson, 1990). Considering oneself a burden to a significant other was an interpersonal factor that appeared to occur at a high frequency (31% of the sample) the month prior to the patient committing suicide. Another group of researchers conducted psychological autopsies by interviewing individuals who were in frequent contact with five terminal cancer patients prior to those patients having committed suicide (Filiberti et al., 2001). According to the opinion of the patient’s family, physician, and nurse, the patients’ concerns regarding their loss of autonomy and the fear of creating a burden to their family due to continuing care, appeared to be the most important reasons for committing suicide. Similar conclusions were deduced in a sample of women with borderline personality disorder, where researchers examined suicide attempts and nonsuicidal self-injury (Brown, Comtois, & Linehan, 2002). In comparison to nonsuicidal individuals, those who had made a suicide attempt were significantly more likely to attribute the attempt as an effort to make others better off, suggesting that the function of their act was to decrease the burden they felt they had created for others. A unique approach was taken when researchers examined a sample of unemployed married individuals at two time points, six months apart (Brown & Vinokur, 2003). Self-reports
were mailed that asked these individuals about depressive symptoms, suicidal ideation, physical health, supportive messages received from spouse, and critical/negative messages received from spouse. The study demonstrated that for unemployed workers, the receipt of critical negative messages mixed with supportive messages significantly increased suicidal ideation. Although burden was not directly measured, the researchers inferred that these messages induced feelings of burden in the individuals, which in turn led to increased suicidal ideation (Brown & Vinokur, 2003).

Overview of the Present Study

Currently, only a handful of studies exist that has explicitly tested the specific role of perceived burden in suicidality. Many of the studies to date have examined perceived burden as a secondary or tertiary focus to a larger study aim. In addition, the concept of perceived burden has been vaguely measured as there is no psychometrically tested measure of perceived burden. Furthermore, the association between perceived burden and suicidality has only recently been investigated in veterans. One qualitative study investigated the interpersonal-psychological theory of suicidal risk in returning Operation Enduring Freedom/Operation Iraqi Freedom veterans (Brenner et al., 2008) and found that returning veterans often experience a sense of thwarted belongingness, a sense of perceived burden, and an acquired ability to engage in suicidal behavior resulting from the violence of war experienced. Another study that included a sample of US Air Force personnel, demonstrated that the interaction between perceived burden and acquired capability significantly predicted suicidal history (Bryan, Morrow, Anestis, & Joiner, 2010). Given these findings and the veteran demographics that coincide with many of the risk variables for suicide, the present study investigated perceived burden in veterans.
When examining risk factors for suicide on a more global scale, many studies that have investigated risk factors for suicide attempts have been conducted with hospitalized inpatients (Brown, Beck, Steer, & Grisham, 2000) who often meet criteria for a severe major depressive episode. However, these findings may not be generalizable to outpatient populations, where a majority of psychiatric patients are typically seen. In addition, among patients who report suicidality, a significant proportion do not meet criteria for a full major depressive episode (Bethell & Rhodes, 2007). Thus the current study included patients that fell on the full spectrum of depression when considering risk factors for suicide.

The present study examined perceived burden and associated suicide risks within depressed day treatment and outpatient veterans. It was hoped that results from this study would help determine whether burden merits further investigation and should be incorporated as part of an effective treatment for suicidal patients in an effort to decrease suicidality and suicide-related behaviors.

Specific Aims and Hypotheses

Goals

The overarching goals of this study were to (1) examine the reliability and validity of the Perceived Burden Scale and (2) examine the strength of the relationship between current suicidal ideation and perceived burden while controlling for known suicide risk variables. The following is a list of specific hypotheses that were tested in the present study:

Hypotheses

1. It was hypothesized that the Perceived Burden Scale would display a sufficient amount of internal consistency, with an $\alpha$ above .70 (Nunnally,
In addition, it was expected that individual items of the Perceived Burden Scale would correlate with the total score above .40.

2. It was hypothesized that perceived burden would have a strong association with current suicidal ideation even when controlling for known demographic suicide risk factors, depression severity, and hopelessness.

The following method section includes an overview of the analytic plan to test these hypotheses.

Method

Participants

Patients with a depressive disorder were the primary focus of recruitment for participation in the study. However, patients with other depression diagnoses were also included for participation. Specific criteria for exclusion included: (a) age less than 18 years, (b) current diagnosis of either bipolar disorder, dementia, schizophrenia, psychosis, or an organic brain syndrome, (c) non-English speaking, (d) inability to read at or above middle-school reading level, as assessed by the inability to read or understand the informed consent document. The diagnoses listed above were excluded because even though such patients may exhibit symptoms of depression, their depressive illness is likely to be different from patients who are experiencing a primary diagnosis of major depressive disorder. Selection was not influenced by any other demographic factor (i.e., gender, race, marital status, or religion). Given that the population of the VAMC is mostly comprised of males, it was expected that the sample would also be comprised mostly of males. Nevertheless, females were not excluded from recruitment.
The present study originally included a potential patient sample of 169 psychiatric adults. Participants were recruited from both an outpatient psychiatry clinic and a day hospital program at The Veterans Affairs Medical Center in Cleveland, Ohio. Of the original 169 potential participants, 14 were ineligible to participate based on inclusion/exclusion criteria. Additionally, 32 were unreachable when attempting to schedule an appointment for the clinical interview. Of the remaining potential participants, 33 declined to participate or consistently failed to show for the clinical interview. Two potential participants were unable to complete the interviews due to health difficulties and incarceration. Finally, one participant was excluded as an outlier, leaving the final sample of 81 psychiatric adults with informed consent.

All patients in the sample met diagnostic criteria for a depressive disorder based on both the SCID structured interview (First et al., 1995) as well as the chart diagnosis provided by their attending psychiatrist who remained blind to the purpose of the present study. Diagnoses included Major Depression (95.1%) and Dysthymia (4.9%). Additionally, 47 patients also met the diagnostic criteria for a comorbid psychiatric diagnosis, including Post-Traumatic Stress Disorder (21%), Substance abuse/dependence (16%), Generalized Anxiety Disorder (11.1%), and Alcohol abuse/dependence (9.9%).

**Measures**

*Demographic Information* was collected to assess various aspects of the patient’s background. Information collected included age, gender, race, marital status, and employment status. Self-rated health was measured using a scale from “poor (1)” to “very good (5).” Diagnosed medical disorders were also recorded from the patient’s chart and were categorized according to the coding scheme suggested by Ferraro and
Wilmoth (2000). Thus, diagnosed medical disorders were coded as, “none (0)”, “non-serious/chronic (1)”, “serious/acute (2)”, or “both non-serious and serious (3).” Lastly, information regarding known suicide risk factors was collected. Suicidality was assessed by asking the question, “Have you ever attempted suicide?” Past psychiatric hospitalizations were assessed by asking the question, “Have you ever been previously hospitalized for psychiatric problems?”

*Structured Clinical Interview for DSM-IV (SCID: First et al., 1995)* is a diagnostic interview used to evaluate Axis I major mental disorders as described in DSM-IV (American Psychiatric Association, 2000). The SCID consists of specific questions that often warrant a “yes” or “no” answer. However, additional open-ended questions allow for elaboration in case the interviewer receives a vague response. The interviewer’s rating depends on the presence or absence of symptoms specific to a DSM-IV disorder. The beginning portion of the SCID consists of a series of screening questions. The screening questions target key symptoms that warrant further investigation if endorsed. The second part of the SCID is organized into sections according to the different classes of psychiatric diagnoses. Once the screening questions are administered the interviewer can then further explore if core symptoms of a disorder are present or not. The SCID has been used as a standard against which to validate other diagnostic measurements (Kessler, McGonagle, Swartz, Blazer, & Nelson, 1993). The SCID has been found to display high test-retest reliability for all Axis I disorders and kappa values ranging from .84 to 1.0 (Schneider et al., 2004). Thus, Axis I disorders can be diagnosed reliably when using the SCID (Zanarini et al., 2000). The administration
takes approximately 60 minutes and consists of individual interviews where information is collected about current and past psychiatric symptoms associated with Axis I disorders.

*Perceived Burden Scale* (PBS) is a new scale that was developed for use in the present study. The PBS includes 30 items to evaluate the degree of burden that a person perceives themselves to be on (a) their family (b) their friends and (c) society. Items are scored at “not at all (0)”, “a little bit (1)”, “somewhat (2)”, “quite a bit (3)”, or “a great deal (4)” with total scores potentially ranging from 0-120. For the present study, a preliminary version called the Family Burden Scale was developed by modifying items from a burden scale first developed by Coyne et al. (1987; 2000) which was meant to assess burden experienced by family members of depressed patients. However, preliminary evaluation of the Family Burden Scale revealed potential limitations due to its sole reliance on perceived burden from the perspective of family members. Thus, the Perceived Burden Scale was developed using items from the Family Burden Scale in combination with new items that were designed from a review of the theoretical definition of perceived burden. The current study examined the preliminary psychometric properties of the PBS.

*Beck Depression Inventory* (BDI-II: Beck, Steer, & Brown, 1996) includes 21 items to evaluate the presence and severity of different symptoms of depression. The BDI-II is one of the most widely used instruments for measuring the severity of depression. Items are presented in a multiple choice format and are scored on a scale value of 0 to 3, with total scores ranging from 0-63. Higher total scores indicate more severe depressive symptoms. The BDI-II has also demonstrated high levels of internal consistency with coefficient alphas of .92 among psychiatric outpatients (Beck, Steer, &
Brown, 1996; Steer, Ball, Ranieri, & Beck, 1997) and .95 among psychiatric inpatients (Cole, Grossman, Prilliman, & Hunsaker, 2003). Evidence of convergent validity for the BDI-II has also been demonstrated among psychiatric outpatients (Beck, Steer, & Brown, 1996; Steer, Ball, Ranieri, & Beck, 1997) and psychiatric inpatients (Cole, Grossman, Prilliman, & Hunsaker, 2003). Discriminant validity has been established in psychiatric outpatients (Beck, Steer, & Brown, 1996). In addition, diagnostic discrimination has been established (Ball & Steer, 2003; Steer, Brown, Beck, & Sanderson, 2001). Overall, the BDI-II has been found to display adequate psychometric properties and has been used to assess depression severity.

*Beck Hopelessness Scale* (BHS: Beck, Weissman, Lester, & Trexler, 1974) assesses a person’s feelings about the future, future expectations, loss of motivation, and overall hopelessness. The BHS is a 20-item self-report measure in which participants are asked to read a statement and respond true or false based on how they currently feel. In scoring the measure, each item receives a 0 or 1. Nine items are keyed false and 11 items are keyed true, so that the total hopelessness score is a sum of the scores on the individual items. The resulting BHS score indicates severity of pessimism about the future, ranging from 0 to 20. Among psychiatric patients, the BHS has yielded a reliability coefficient of .93 (Beck, Weissman, Lester, & Trexler, 1974), and more recent data has supported comparable findings (Dyce, 1996; Young, Halper, Clark, Scheftner, and Fawcett, 1992). Among general and forensic psychiatric patients, the BHS has been found to demonstrate sufficient levels of internal consistency with alphas ranging from .65-.88 (Chang, D'Zurilla, & Maydeu-Olivares, 1994; Durham, 1982; Steed, 2001). In addition, studies on the psychometric properties of the BHS have supported evidence of convergent and
discriminant validity (Alford, Lester, Patel, Buchanan, & Giunta, 1995; Thackston-Hawkins, Compton, & Kelly, 1994).

*Beck Scale for Suicidal Ideation* (BSSI: Beck, Kovacs, & Weissman, 1979; Beck, Steer, & Ranieri, 1988) includes 21 items designed to evaluate the presence and severity of suicidal thoughts. The first 19 items measure the severity of suicidal wishes, attitudes, and plans. Patients rate each item on a scale of 0 to 2, with 2 being most severe. The last two items address the number of previous suicide attempts and the intention to die associated with the last attempt. The BSSI has been found useful in quantifying the degree of suicidal ideation a person is experiencing and can serve as a key warning sign in identifying suicide risk. The BSSI has demonstrated strong internal consistency with a coefficient alpha of .93 among psychiatric outpatients (Beck et al., 1988). Among psychiatric inpatients, the BSSI has demonstrated coefficient alphas of .89 (Beck et al., 1979) and .96 (Beck et al., 1988). Studies on the psychometric properties of the BSSI have shown evidence of interrater reliability (Beck et al., 1979), convergent validity (Holden & DeLisle, 2005), concurrent, and construct validity (Beck et al., 1988). The BSSI is currently considered the clinical scale of choice for assessing suicidal risk (Cochrane-Brink, Lofchy, & Sakinofsky, 2000).

*Social Support Questionnaire—Short Form* (SSQ-SF: Sarason, Sarason, Shearin, & Pierce, 1987) is a 6-item instrument used to assess an individual’s social network and the help perceived from that network in six different areas. Separate scores are obtained for total number of social supports (0-9 per item) and level of satisfaction with social supports (1=very dissatisfied to 6=very satisfied). As the satisfaction with social supports has been shown to be more important than number of social supports (Franks & Cronan,
2004; Sandler & Barrera, 1984), the SSQ-SF social supports satisfaction subscale was solely used in the present study. The SSQ-SF has been shown to correlate highly with the original 27-item Social Support Questionnaire (Sarason et al., 1987). In addition, the SSQ-SF is considered psychometrically sound with coefficient alpha values of .90 (Sarason et al., 1987) and .73 (Goode, Haley, Roth, & Ford, 1998). An overall alpha coefficient of .71 has also been reported (Hudson, Elek, & Campbell-Grossman, 2000). Adequate concurrent validity has been supported by the fact that the SSQ-SF significantly and negatively correlates with measures of loneliness, depression, and low self-esteem (Sarason et al., 1987).

*PTSD Symptom Scale—Self-Report* (PSS-SR: Foa, Riggs, Dancu, & Rothbaum, 1993) is a self-report measure designed to assess the presence severity of PTSD symptoms in individuals who have experienced a traumatic event. It consists of 17 items that can be classified as belonging to one of three symptom clusters, including avoidance, re-experience, and hyperarousal. Each symptom is rated according to the frequency, with which it was experienced in the past week as “never (0)”, “once (1)”, “2-4 times (2)”, or “5 times or more (3)” with a total score ranging from 0 to 51 with a higher score reflecting greater severity and symptomatology. The PSS-SR has demonstrated adequate reliability with an internal consistency of .91 and a test-retest reliability of .74 (Foa et al., 1993). In addition, validity of the PSS-SR has been demonstrated with a positive predictive value of 1.0 and a negative predictive value of .82 when compared to a SCID diagnosis of PTSD (Foa et al. 1993).

*Procedures*
As of 12/11/2008, the Institutional Review Boards of both the Department of Veterans Affairs Medical Center and Case Western Reserve University approved all study procedures and forms. The VAMC site’s responsible investigator, Dr. Josephine Ridley, Ph.D. also agreed to the study procedures.

Recruitment of participants occurred in various ways. Flyers advertising the study were posted throughout the VAMC’s outpatient and day treatment program facility asking interested persons to contact the research team via telephone (Appendix A). Treatment providers (e.g. VAMC psychiatrists, psychologists, social workers, and nurses) were asked to distribute handouts to potential patients meeting criteria for the study (Appendix B). The handouts provided contact information and inclusion criteria so patients could determine if they were good candidates for the study and could thus contact the research team if they were interested in participating in the study. The research team also contacted the treatment providers in the outpatient clinic directly to get names of patients that met criteria for the study. These patients were later contacted by the research team for recruitment. In addition, Dr. Ridley recruited participants from among her patients based on whether or not their current diagnosis met criteria for the study. A HIPAA waiver was approved by the VA IRB so that charts for these potential participants could be screened ahead of time in order to determine if patients met preliminary criteria for study inclusion and to help avoid wasting patients’ time if they did not meet the criteria. Patients who contacted the research team directly via flyer information were asked for permission to review their medical record to see if they met preliminary criteria for participation. Patients recruited by telephone were scheduled for
an information session where they were explained the purpose of the study. If they agreed to participate, patients were consequently interviewed.

When patients arrived for the interview, they were greeted by a researcher and escorted to a private room where they were informed about: the purpose of the study, the time commitment (approximately one hour), and the risks and benefits associated with the study. The informed consent document was subsequently distributed (Appendix C). The patient was encouraged to ask the researcher questions about the study. In addition, patients were informed that they may stop participating at any point throughout the study without penalty and without consequence to their treatment at the VA. The researcher made a final determination of capacity to consent by asking the patient two questions following the explanation of the informed consent document. These questions included, (1) “Can you tell me a little bit about what this study is about?”, and (2) “Can you briefly describe what we will hope to do today?” In the present study, none of the participants included in the study had any impairment in their capacity for consent. Thus, a SCID interview was administered to determine whether the patient met criteria for a depressive disorder.

Clinical psychology graduate students were taught how to administer the SCID by an experienced interviewer. In addition, graduate students were trained with specific coursework in diagnosing psychiatric diagnoses and were required to watch the official SCID training video. The experienced interviewer was either a doctorate level supervisor or an advanced graduate student. Trainees were first allowed to observe a number of full interviews. Gradually, the students were allowed to transition into interviewing. The graduate students then administered full interviews under supervision. Only after
approval on the part of the supervisor were the graduate students allowed to administer a full SCID interview on their own.

A depressive disorder diagnosis was determined by a SCID interview. Staff diagnoses obtained from the patient’s chart were also recorded. Participants whose staff diagnosis and SCID diagnosis did not match on depression were not included in the study. If the patients met criteria for a depressive disorder in this way, they were asked to participate in the study. Participants were then asked about general demographic information (Appendix D) as well as recent and past suicide attempts which were recorded in a suicide history form (Appendix E). Lastly, a set of questionnaires were given to be completed by all participants (Appendices F). All participants were given the same set of questionnaires in the same order. Patients were compensated ten dollars for their participation in the study.

Data Analytic Plan

The proposed statistical plan for data analysis was conducted in the following three stages:

**Stage One: Descriptive Statistics and Data Distribution**

Descriptive statistics were used to examine the distribution of the study variables. Prior to testing hypotheses, the univariate distributions were inspected to assess normality, identify outliers, skewness/kurtosis, or other abnormalities in the data set.

**Stage Two: Psychometrics of Measures**

Reliability and validity of the measures used was determined in the current sample. Reliability was measured using internal consistency (Cronbach’s alpha). It was expected that all the measures would contain a sufficient amount of internal consistency,
with an \( \alpha \) above .70 (Nunnally, 1978). Intercorrelations between measures were analyzed to assess the validity of the measures.

**Stage Three: Testing of Hypotheses**

1. The present study examined the reliability and validity of the Perceived Burden Scale. It was expected that the Perceived Burden Scale would contain a sufficient amount of internal consistency. In addition, it was expected that individual items of the Perceived Burden Scale would correlate with the total score above .40. It was expected that the Perceived Burden Scale would display evidence of convergent and divergent validity. Lastly, an exploratory principal components analysis was conducted to identify the underlying factors of the Perceived Burden Scale.

**Analytic Plan.**

Reliability was measured using internal consistency (Cronbach’s alpha) and item-total correlations. Intercorrelations between measures were analyzed to determine the validity of the Perceived Burden Scale. A principal components analysis was conducted in order to determine the number of underlying factors. Multiple criteria for determining the number of factors were considered including eigenvalues, Cattell’s scree test, and parallel analysis (Henson & Roberts, 2006).

2. The present study also examined the strength of the relationship between current suicidal ideation and perceived burden. It was hypothesized that perceived burden would have a strong association with current suicidal symptoms even when controlling for known demographic suicide risk factors, perceived social support, PTSD, depression severity, and hopelessness.
Analytic Plan.

A hierarchical linear regression analysis was used in order to evaluate the strength of the association between perceived burden and current suicidal symptoms while controlling for other covariates. Current suicidal ideation (BSSI) scores were used as the dependent variable. In the first step, demographic variables and scores for the presence and severity of PTSD symptoms (PSS-SR) were entered. In the second step, perceived social support (SSQ-SF) scores were added. In the third step, depression severity (BDI-II) scores were added. In the fourth step, hopelessness (BHS) scores were added. In the fifth and final step, perceived burden (PBS) scores were added to evaluate if perceived burden accounted for variance beyond that accounted for by the demographic and PTSD symptoms, perceived social support, depression severity, and hopelessness variables. It was expected that the amount of variance accounted for by perceived burden would emerge as significant even when controlling for the other variables.

Results

Analyses were performed using the Statistical Package for the Social Sciences for Windows (SPSS, version 16.0). The alpha level for statistical significance was set at $p < .05$ unless otherwise specified. Prior to analysis, all variables were examined for accuracy of data entry, missing values and outliers. One outlier was identified on several of the measures and was thus discarded from subsequent analyses, leaving 81 subjects for the main analyses. There were no missing measures for any participant and missing data at the item level was infrequent with less than 1% of the items missing. Missing items were replaced by the mean of all cases on the variable.
Demographics and Descriptives

The 81 psychiatric adults represented a combination of day hospital patients \((n = 20)\) and outpatients \((n = 61)\). Means, standard deviations, frequencies, and tests of significance were calculated for the day hospital patients, outpatients, and the total sample on demographic variables as described in Table 1. There were no significant differences between the two groups on age, gender, race, marital status, physical health conditions, suicidality, and past psychiatric hospitalizations. However, outpatients were more likely to be employed, \(\chi^2 (1, N = 81) = 5.19, p < .05\). Significance tests were also conducted between the two groups on the main variables used for regression analyses and were not significant. Thus, the day hospital patients and outpatients were combined into one sample. Overall, ages of the patients ranged from 18 to 81. Most of the patients were African American (61.7%), Caucasian (34.6%) or did not identify with any particular racial group (3.7%). As expected, most of the patients were male (85.2%). Additionally, only 24.7% of the patients were married and only 27.2% were working. Despite the higher level of diagnosed medical disorders documented in their charts, 63% of the sample self-rated their physical health at either average or better. 32.1% of the sample had ever attempted suicide and only 35.8% had been previously hospitalized for psychiatric issues.

Intercorrelations, means, and standard deviations were calculated to examine the relationship between the measures and to test for multicollinearity (Table 2). Additionally, skewness and kurtosis values were assessed. The values were divided by their respective standard errors and compared to a z-score distribution. As the sample size was small, a conservative alpha level \((p < .001)\) was selected which was equivalent
to a critical z value of ±3.29. There were no significant skewness or kurtosis values. Additionally, skewness and kurtosis values fit into an appropriate range (i.e. below the absolute value of 2) indicating scores from this sample could be normally distributed across all variables of interest (Curran West, & Finch, 1996). There were mostly significant intercorrelations between the main measures (Table 2), with correlation coefficients ranging from .22 to .76. There was a nonsignificant correlation between perceived burden (PBS) and perceived satisfaction with social support (SSQ-SF), \( r = -0.22 \), ns.

**Reliability of the Study Measures**

Estimates of internal consistency were examined for each of the psychometric measures used. Satisfactory internal consistency was observed for the study scales with alphas ranging from .89 to .96. Alpha coefficients were calculated for the BDI-II (\( \alpha = .90 \)), the BHS (\( \alpha = .93 \)), the BSSI (\( \alpha = .94 \)), the SSQ-SF (satisfaction with social supports subscale, \( \alpha = .89 \)), and the PSS-SR (\( \alpha = .96 \)).

**The Perceived Burden Scale**

The psychometric properties of the Perceived Burden Scale (PBS) were examined more closely to determine whether the PBS could be used as a new measure of perceived burden. The PBS demonstrated a satisfactory level of internal consistency (\( \alpha = .96 \)). Inter-item correlations were also calculated and ranged from .07 to .93 with an average correlation of .47.

**Principal Components Analysis of the Perceived Burden Scale**

In order to examine the underlying relationship among the items on the PBS, a principal components analysis (PCA) was conducted. Given the small sample size, PCA
was chosen over factor analysis (FA) for being more psychometrically sound and simpler mathematically (Stevens, 1996). Prior to performing PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .30 and above. The Kaiser-Meyer-Olkin value was .90, exceeding the recommended value of .60 (Kaiser 1970, 1974) and Bartlett’s Test of Sphericity (Bartlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of one primary component with an eigenvalue exceeding 1, explaining 50.19% of the variance. An inspection of the screeplot revealed a clear break after the first component (Figure 1). Using Catell’s (1966) scree test, it was decided to retain one component for further investigation. The decision to retain one primary component was further supported by the results of the Parallel Analysis, which showed only one component with an eigenvalue exceeding the corresponding criterion values for a randomly generated data matrix of the same size (30 variables x 81 respondents).

As only one simple structure was retained, no rotation was necessary. Table 3 presents the single component with items, factor loadings, communality estimates ($h^2$), means, standard deviations, and item-total correlations. Factor loadings were adequate and ranged from .42 to .86 as were the communality estimates which ranged from .18 to .73. Item-total correlations were all above .20 (Kline, 1986).

**Hierarchical Regression**

Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. The inspection of the Normal Probability Plot
(P-P) of the Regression Standardized Residual (Figure 2) revealed a reasonably straight diagonal line from bottom left to top right. Inspection of the Mahalanobis and Cook’s distances did not reveal critical outliers. Lastly, assumptions of multicollinearity were assessed by examining Tolerance and Variance Inflation Factor (VIF) values. There were no Tolerance values less than .10 and no VIF values greater than 10 (Tabachnick & Fidell, 2007). Intercorrelations among known suicide risk factors and study scales were also investigated (Table 4). In order to protect against an increased risk of Type I errors, the significance level was set to \( p < .01 \). Employment status was negatively and significantly associated with perceived burden \( (r = -.30, p < .01) \), and depression severity \( (r = -.32, p < .01) \). Previous psychiatric hospitalization was positively and significantly associated with perceived burden \( (r = .34, p < .01) \), depression severity \( (r = .36, p < .01) \), and suicidal ideation \( (r = -.30, p < .01) \). The remaining values did not reveal any correlations greater than .7 with the dependent suicidal ideation (BSSI) variable.

A power analysis was also run in order to determine whether the sample size was large enough to detect significant/nonsignificant relationships among the variables. Using the statistical program GPower 3.0.10, it was determined that there was enough power to conduct the analyses \( (power = .80, alpha = .01) \).

In order to examine the relationship between current suicidal ideation (BSSI) and a combination of suicide risk variables, a hierarchical linear regression was conducted in five steps to control for possible covariates (Table 5). In the first step, employment status and scores for the presence and severity of PTSD symptoms (PSS-SR) were added. These variables accounted for 13% of the variance in suicidal ideation and the step was
significant \( (F (2, 78) = 5.63, p < .01) \). Current suicidal ideation was positively and significantly related to the presence and severity of PTSD symptoms \( (\beta = .34, p < .01) \).

In the second step, perceived social support (SSQ-SF: satisfaction with social supports subscale) scores were added and explained an additional 10% of the variance in suicidal ideation \( (\Delta R^2 = .10) \) which was significant \( (\Delta F (1, 77) = 9.56, p < .01) \). Current suicidal ideation was negatively and significantly related to perceived social support \( (\beta = -.32, p < .01) \).

In the third step, depression severity (BDI-II) scores were added and explained an additional 5% of the variance in suicidal ideation \( (\Delta R^2 = .05) \) which was not significant \( (\Delta F (1, 76) = 5.12, \text{ns}) \). Current suicidal ideation was not significantly related to depression severity \( (\beta = .27, \text{ns}) \).

In the fourth step, hopelessness (BHS) scores were added and explained an additional 7% of the variance in suicidal ideation \( (\Delta R^2 = .07) \) which was significant \( (\Delta F (1, 75) = 8.25, p < .01) \). Current suicidal ideation was positively and significantly related to hopelessness \( (\beta = .37, p < .01) \).

In the fifth and final step, perceived burden (PBS) scores were added and explained an additional 2% of the variance in suicidal ideation \( (\Delta R^2 = .02) \) which was not significant \( (\Delta F (1, 74) = 2.50, \text{ns}) \). Current suicidal ideation was not significantly related to perceived burden \( (\beta = .25, \text{ns}) \).

Post hoc Analyses

In an effort to examine the simple relationship between suicidal ideation and perceived burden, a sensitivity analysis was conducted. Thus, a hierarchical linear regression with only two steps was examined. In the first step, previous hospitalization,
employment status and scores for the presence and severity of PTSD symptoms (PSS-SR) were added. These variables accounted for 18% of the variance in suicidal ideation and the step was significant \( F(3, 77) = 5.77, p < .01 \). Current suicidal ideation was positively and significantly related to the presence and severity of PTSD symptoms \( \beta = .30, p < .01 \).

In the second and final step, perceived burden (PBS) scores were added and explained an additional 7% of the variance in suicidal ideation \( \Delta R^2 = .07 \) which was significant \( \Delta F(1, 76) = 7.53, p < .01 \). Current suicidal ideation was positively and significantly related to perceived burden \( \beta = .10, p < .01 \).

To further explore the relationship between perceived burden, depression, hopelessness, and suicidality, two additional post hoc hierarchical linear regression analyses were conducted. First, the relationship between depressive severity (BDI-II) and a combination of variables was investigated. A hierarchical linear regression was conducted in three steps to control for possible covariates (Table 6). In order to decrease Type I errors, the significance value was set to \( p < .01 \).

In the first step, previous hospitalization, employment status and scores for the presence and severity of PTSD symptoms (PSS-SR) were added. These variables accounted for 34% of the variance in depression severity and the step was significant \( F(3, 77) = 13.39, p < .001 \). Current depressive severity was positively and significantly related to the presence and severity of PTSD symptoms \( \beta = .39, p < .001 \).

In the second step, perceived social support (SSQ-SF: satisfaction with social supports subscale) scores were added and explained an additional 3% of the variance in
depression severity ($\Delta R^2 = .03$) and was not significant ($\Delta F (1, 76) = 3.09$, ns). Current depressive severity was not significantly related to perceived social support.

In the third step and final step, perceived burden (PBS) scores were added and explained an additional 24% of the variance in depression severity ($\Delta R^2 = .24$) and was significant ($\Delta F (1, 75) = 45.78, p < .001$). Current depressive severity was positively and significantly related to perceived burden ($\beta = .64, p < .001$).

The second post hoc regression analysis examined the relationship between hopelessness (BHS) and a combination of variables. A hierarchical linear regression was conducted in four steps to control for possible covariates (Table 7). In order to decrease Type I errors, the significance value was set to $p < .01$.

In the first step, previous hospitalization, employment status and scores for the presence and severity of PTSD symptoms (PSS-SR) were added. These variables accounted for 20% of the variance in hopelessness and the step was significant ($F (3, 77) = 6.21, p < .01$). However, hopelessness was not significantly related to either of these variables.

In the second step, perceived social support (SSQ-SF: satisfaction with social supports subscale) scores were added and explained an additional 16% of the variance in hopelessness ($\Delta R^2 = .16$) which was significant ($\Delta F (1, 76) = 18.98, p < .001$). Hopelessness was negatively and significantly related to perceived social support ($\beta = -.42, p < .001$).

In the third step, depression severity (BDI-II) scores were added and explained an additional 12% of the variance in hopelessness ($\Delta R^2 = .12$) which was significant ($\Delta F$
Hopelessness was positively and significantly related to depression severity ($\beta = .44, p < .001$).  

In the fourth and final step, perceived burden (PBS) scores were added and explained an additional 1% of the variance in hopelessness ($\Delta R^2 = .01$) which was not significant ($\Delta F (1, 74) = 1.79, ns$).  Hopelessness was not significantly related to perceived burden ($\beta = .18, ns$).

**Discussion**

Depression is one of the most common mental disorders and potentially one of the most fatal, placing an individual at significant risk for suicide (Conwell et al., 1996). Although a significant number of depressed individuals die by suicide (Bostwick & Pankratz, 2000), there are still a significant number of individuals that do not succumb to suicide. A vast amount of research has been devoted to finding the variables that facilitate an individual to transition from a state of depression to a state of self-destruction. Hopelessness has been established as one of the strongest markers for suicide (Beck, Steer, and Kovacs, 1985; Brown, Beck, Steer & Grisham, 2000). More recently, perceived burden has been identified as an important indicator for suicide (Brown, Brown, Johnson, Olsen, Melver, & Sullivan, 2009; Joiner, Pettit, Walker, Voelz, & Cruz, 2002; Van Orden, Lynam, Hollar, & Joiner, 2006; Van Orden, Witte, Gordon, Bender, & Joiner, 2008). The present study adds to the growing body of research investigating the relationship between perceived burden and suicidal tendencies. The aim of the study was to quantitatively examine perceived burden within depressed veterans, a population at a higher risk for potential suicide than the general population (Desai, Dausey, & Rosenheck, 2005).
Main Findings

The first hypothesis stated that the Perceived Burden Scale would display evidence of adequate levels of reliability and validity. The Perceived Burden Scale displayed an adequate level of internal consistency as evidenced by Cronbach’s alpha ($\alpha = .96$) and item-total correlations which were all above .20. A principal components analysis revealed the presence of one primary component accounting for 50.19% of the variance, with strong factor loadings. Additionally, the Perceived Burden Scale displayed evidence of convergent validity through the strong associations with other well validated measures relating to suicidal tendencies such as the Beck Depression Inventory (BDI-II), the Beck Hopelessness Scale (BHS), and the Beck Scale for Suicidal Ideation (BSSI). The Perceived Burden Scale was also significantly associated with expected demographic variables including employment status and previous psychiatric hospitalizations. Similarly, the Perceived Burden Scale displayed evidence of divergent validity as seen in the weak associations with expected unrelated variables such as age, gender, and race.

The second hypothesis stated that perceived burden would have a strong association with current suicidal symptoms even after controlling for known demographic suicide risk factors, perceived social support, PTSD, depression severity, and hopelessness. Although perceived burden appeared to be related to suicidal ideation, it did not relate to suicidal ideation beyond the association between suicidal ideation and hopelessness as was expected. The nonsignificant association between perceived burden and suicidal ideation when controlling for known risk factors, specifically hopelessness, contradicts findings from previous research studies (Brown, Brown, Johnson, Olsen,
Several variables were found to significantly relate to suicidal ideation. The presence and severity of PTSD symptoms were found to have a strong association with suicidal ideation which is not surprising given the extensive amount of research demonstrating the increased risk for suicidal ideation and suicidal behavior experienced by veterans with PTSD. Previous research has demonstrated an elevated risk of suicide among veterans with PTSD in comparison to the general population (Hendin & Haas, 1991) and in comparison to veterans without PTSD (Freeman, Roca, & Moore, 2000). Although it was not examined in the present study, previous research has shown that of the various PTSD symptoms, it is the re-experiencing symptoms that have the strongest association with suicidal ideation (Bell & Nye, 2007). The association between re-experiencing symptoms and suicidal ideation may be due to the fact that intrusive PTSD symptoms often produce higher levels of subjective distress and agitation that may trigger a desire to escape the intolerable distress through thoughts of suicide. Given that the sample in the present study included depressed veterans, the association between PTSD and suicidal ideation may have been compounded as a higher likelihood of suicidal ideation has been found in depressed patients who also have PTSD in comparison to depressed patients without PTSD (Oquendo et al., 2003).

Perceived social support was also found to have a strong association with suicidal ideation. The relationship between social support and suicidal ideation was not surprising given that the onset of suicidal thoughts has been found to be more frequent in people with lower levels of social support (Gunnell, Harbord, Singleton, Jenkins, &
Lewis, 2004). A positive perception of family and social support has also been reported to decrease the risk of suicidal ideation (Chioqueta & Stiles, 2007). Moreover, lowered social support has been associated with an increase in feelings of loneliness and a decrease in sense of belonging (Mellor, Stokes, Firth, Hayashi, & Cummins, 2008), both of which have been found to be risk factors for suicide (Stravynski & Boyer, 2001; Van Orden et al., 2008).

In the present study, hopelessness was one of the strongest variables related to suicidal ideation when controlling for numerous suicidal risk variables. Hopelessness reflects the view that one’s current situation is intolerable and cannot be changed. This cognitive process appears to be an important step in facilitating the transition from a depressive state to suicidal ideation. Moreover, hopelessness as a cognitive variable has most consistently been associated with suicidal ideation (Beck, Steer, Kovacs, & Garrison, 1985), suicide attempts (Weishaar & Beck, 1992), and completed suicides (Beck, Steer, Epstein, and Brown, 1990).

Explaining the Discrepancies

Additional post hoc analyses were conducted in order to get a better understanding of the discrepancy between the results from the present study and previous research. Both PTSD symptomatology and perceived burden were found to have a strong association with depression severity. The relationship between PTSD and depression was not surprising given that a large percentage of individuals who experience trauma subsequently develop depression (Maes, Mylle, Delmeire, & Altamura, 2000). A significant positive relationship was found between perceived burden and depression severity suggesting that the more depressed a person becomes the more they perceive
themselves to be a burden and vice versa. Additionally, both perceived social support and depression severity were found to have significant associations with feelings of hopelessness, findings that have been well-validated in previous research studies (Chioqueta & Stiles, 2007).

In summary, perceived burden appeared to be significantly associated with depression. Depression was significantly related to hopelessness which, in turn, was significantly related to suicidal ideation. Thus, perceived burden may be more directly related to depression and indirectly related to suicidal ideation. Although causality was not investigated in the present study, a possibility may be that the perception of burden can worsen a depressive state, thereby contributing to feelings of hopelessness which may precede the onset of suicidal ideation.

The nonsignificant association between perceived burden and suicidal ideation when controlling for known risk factors, specifically hopelessness may also be due to the large percentage of African-Americans (61.7%) in the current sample. Suicide risk factors have been shown to be different in African-Americans in comparison to Caucasians. Although suicide rates among African-Americans have increased in recent years (Day-Vines, 2007), African-American individuals still have one of the lowest suicide rates across racial groups (Kung, Hoyert, Xu, & Murphy, 2008). Individuals who commit suicide tend to do so at a younger age than Caucasians and suicidal behavior tends to be rarer in older African Americans (Garlow, Purselle, & Heninger, 2005). Additionally, African Americans are less likely than Caucasians to attempt or complete suicide in the context of a depressive episode (Oquendo, Ellis, Greenwald, Malone, Weissman, & Mann, 2001). The current sample contained older, depressed African-
Americans. More importantly, a long history of racial oppression has contributed to a distrust of medical professionals which has led African Americans to be less willing to seek help from mental health professionals (Horwath, Johnson, & Hornig, 1993). Thus, it is much more common for members of the African American community to rely on family, extended family, and the church (Willis, Coombs, Cockerham, & Frison, 2002). The dependence on others suggests that the perception of being a burden may be much lower among African Americans than in other cultural groups. Similarly, in collectivist communities, it has been suggested that a lesser degree of perceived burden may be normal and less indicative of suicidal tendencies (Pettit et al., 2002).

**Clinical Implications**

Even though the present study did not find a strong relationship between perceived burden and suicidal ideation when controlling for hopelessness, findings suggest that perceived burden may be more related to depression and perhaps indirectly related to suicidal ideation. Thus, it is important to assess perceptions of burden within the context of a depressive episode. One way of assessing perceived burden is with the Perceived Burden Scale which demonstrates preliminary evidence of reliability and validity. As perceived burden may reflect an error in patients’ perception of their impact on others, it appears that cognitive behavioral therapy would be an appropriate intervention aimed at helping patients acquire a more realistic view of their impact on others. Clinicians may also help patients to focus on the contributions they have made to friends, family, and society in order to counterbalance their often skewed view. Additionally, given that social support has a significant relationship to both suicidal ideation and depression, it might be beneficial to include family members in the
therapeutic process in order to examine how messages of frustration, anger, and resentment on the part of family members, who might not be having their own needs met, may be directly or indirectly communicated (Crowe, 2004) thereby contributing to a perception of burden.

The findings of the present study underscore the importance of assessing hopelessness as a significant risk factor of potential suicide in depressed individuals. Unlike many other suicide risk factors, hopelessness can be modified. Cognitive therapy that is aimed specifically at reducing feelings of hopelessness has been shown to produce a much more rapid reduction in hopelessness scores in comparison to hopeless depressed patients treated with antidepressant medication (Rush et al., 1982). Within a cognitive behavioral framework, clinicians can convey that there are alternative interpretations of negative life situations that are better than may have originally been anticipated, thereby instilling a sense of hope. By challenging hopeless beliefs, patients may begin to see their situation from various perspectives allowing for reasoned thinking to take place. Likewise, Socratic questioning can allow for guided discovery of patients’ ideas and beliefs bringing to light the apparent contradictions in their thinking.

It is important for clinicians to conduct a thorough assessment of additional risk factors such as comorbid diagnoses, specifically PTSD. Failure to do so may result in an incomplete understanding of contributing factors triggering suicidal ideation in a patient. Likewise, it is important for clinicians to work with patients in a culturally responsive way in order to gain a better understanding of certain cultural attributes such as communication styles, coping styles, historical, and contemporary experiences that may either place patients at a higher risk for suicide or provide protective factors.
Implications for Future Research

Perceived burden has been considered an important contributing factor to suicidal tendencies in two related models. According to deCatanzaro’s evolutionary perspective (1986), perceived burden and low reproductive value are conditions that interfere with self-preservation. Similarly, the interpersonal-psychological theory of suicide risk (Joiner, 2005) has proposed that perceived burden in conjunction with social disconnection and the ability to self-injure are conditions that interfere with self-preservation. The present study only examined perceived burden and its relationship to suicidal ideation. Future studies might investigate each theory in its totality and in comparison to one another. Future investigations might also consider examining whether burden is a cognitive distortion of the depressed individual or a realistic side effect of the depression that negatively impacts others around the depressed individual. Additionally, given the findings from the present study, testing for mediation and moderation effects between perceived burden, depression, hopelessness, and suicidal ideation may provide more insight into the relationship between these variables. Future studies might also consider further investigating the psychometric properties of the Perceived Burden Scale by examining test-retest reliability, confirmatory factor analysis, and its performance in other high risk for suicide populations.

Limitations

As with all studies, the current study had several limitations. The sample size was small and included mostly male, African American veterans. The small sample size limited statistical power which prevented the inclusion of more complex analyses. The small sample size also limited the amount of variables that could be controlled for.
Moreover, the high rate of African American, male veterans may limit the
generalizability of the present findings to other treatment populations. However, the
sample was a clinical sample containing depressed, minority veterans which represent a
population not often investigated in research. Moreover, completed suicide tends to be
higher in males (Brown, Beck, Steer, & Grisham, 2000; Kessler et al., 2005) and research
specifically targeted at males may help explain some of the gender discrepancies. The
sample also included a variety of depressive diagnoses such as major depression single
and recurrent episodes, with melancholia, without melancholia, and dysthymia. In
addition, a large percentage of the sample carried comorbid diagnoses which make the
findings generalizable to more realistic clinical populations.

An additional limitation was that inter-rater agreement on the SCID was not
checked. However, the SCID is a well established instrument and has been used as a gold
standard against which to validate other diagnostic instruments (Kessler, McGonagle,
Swartz, Blazer, & Nelson, 1993). Patients were included in the study only if their SCID
diagnosis matched the chart diagnosis recorded by the patient’s attending psychiatrist.
Moreover, chart diagnoses were based on unstructured clinical interviews made by the
attending psychiatrist who was blind to the goals of the present research.

The present study used self-report measures which can be influenced by response
set and social desirability factors. However, the main psychometric measures used are all
well established instruments that have been validated across different clinical
populations. These well established instruments include, the Beck Depression Inventory
(BDI-II), the Beck Hopelessness Scale (BHS), the Beck Scale for Suicidal Ideation
(BSSI), the Social Support Questionnaire—Short Form (SSQ-SF), and the PTSD
Symptom Scale—Self-Report (PSS-SR). Moreover, aspects of reliability and validity were examined and demonstrated to be adequate.

Given the cross-sectional and correlational design of the present study, the existence of causal relationships among the variables could not be assessed. However, the relevance of investigating perceived burden as a marker for suicide has only recently been suggested. Therefore, a cross-sectional designed study can provide some immediate evidence of the association between perceived burden and suicidal tendencies while limiting study attrition in difficult-to-attain clinical samples. Moreover, cross-sectional studies can allow for early examination of methodology and preliminary testing for more complex prospective studies.

An additional limitation was that the present study only examined the relationship between perceived burden and suicidal ideation within the interpersonal-psychological theory of suicide risk. The theory proposes three main criteria that increase the chances of suicidal behavior which include (1) the ability to self-injure, (2) social disconnection, and (3) perceived burden (Joiner, 2005). Although perceived burden as a sole variable has been strongly associated with suicide risk (Van Orden, Lynam, Hollar, & Joiner, 2006), caution should be used when interpreting the findings from the present study as the interpersonal-psychological theory was not examined in its totality. Thus, statistical interactions between perceived burden and other variables were not examined.

Despite the limitations, the present study suggests that the newly developed Perceived Burden Scale is composed of items that are strongly related and may be helpful in measuring perceived burden in depressed individuals. Moreover, the Perceived Burden Scale is strongly related to other well-established instruments. The present study
also suggests that comorbid diagnoses such as PTSD and additional variables such as perceived social support appear to be important risk factors for suicidal tendencies which should be assessed in depressed individuals. Although, the present findings did not confirm the strong relationship between perceived burden and suicidal ideation when controlling for hopelessness, the strong association between hopelessness and suicide is congruent with prior research (Beck, Steer, Epstein, & Brown, 1990; Beck, Steer, Kovacs, & Garrison, 1985; Brown, Beck, Steer, & Grisham, 2000; Weishaar & Beck, 1992).

Of interest in the present study was the strong association between perceived burden and depression. There appears to be a complex network of relationships between perceived burden, depression, hopelessness, and suicidal ideation that current research may be starting to reveal. Research aimed at understanding these relationships could inform suicide prevention efforts.
Table 1

Demographic Characteristics of Total Sample (N = 81), Depressed Day Hospital Patients (n = 20), and Depressed Outpatients (n = 61)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total Sample (N = 81)</th>
<th>Day Hospital Patients (n = 20)</th>
<th>Outpatients (n = 61)</th>
<th>Test of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, M (SD)</td>
<td>51.99 (11.19)</td>
<td>50.65 (10.06)</td>
<td>52.41 (11.63)</td>
<td>( t (79) = -0.61 )</td>
</tr>
<tr>
<td>Gender (% male)</td>
<td>85.20</td>
<td>75.00</td>
<td>88.50</td>
<td>( \chi^2 (1) = 1.24 )</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td>( \chi^2 (2) = 6.26 )</td>
</tr>
<tr>
<td>% Caucasian</td>
<td>34.60</td>
<td>15.00</td>
<td>41.00</td>
<td></td>
</tr>
<tr>
<td>% African-American</td>
<td>61.70</td>
<td>85.00</td>
<td>54.10</td>
<td></td>
</tr>
<tr>
<td>% other</td>
<td>3.70</td>
<td>0.00</td>
<td>4.90</td>
<td></td>
</tr>
<tr>
<td>Marital status (% married)</td>
<td>24.70</td>
<td>20.00</td>
<td>26.20</td>
<td>( \chi^2 (1) = 0.07 )</td>
</tr>
<tr>
<td>Employment (% employed)</td>
<td>27.20</td>
<td>5.00</td>
<td>34.40</td>
<td>( \chi^2 (1) = 5.19^* )</td>
</tr>
<tr>
<td>Physical health comorbidities</td>
<td></td>
<td></td>
<td></td>
<td>( \chi^2 (3) = 2.01 )</td>
</tr>
<tr>
<td>% none</td>
<td>12.30</td>
<td>20.00</td>
<td>9.80</td>
<td></td>
</tr>
<tr>
<td>% non-serious/chronic</td>
<td>42.00</td>
<td>45.00</td>
<td>41.00</td>
<td></td>
</tr>
<tr>
<td>% serious</td>
<td>21.00</td>
<td>15.00</td>
<td>23.00</td>
<td></td>
</tr>
<tr>
<td>% combination</td>
<td>24.70</td>
<td>20.00</td>
<td>26.20</td>
<td></td>
</tr>
<tr>
<td>Suicidality (% ever attempted)</td>
<td>32.10</td>
<td>50.00</td>
<td>26.2</td>
<td>( \chi^2 (1) = 2.89 )</td>
</tr>
<tr>
<td>Past psychiatric hospitalizations (% yes)</td>
<td>35.80</td>
<td>40.00</td>
<td>34.4</td>
<td>( \chi^2 (1) = 0.03 )</td>
</tr>
</tbody>
</table>

Note. Tests of significance were calculated between the day hospital patients and outpatients. * \( p < .05 \)
<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>6</th>
<th>7</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived Burden Scale</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40.58</td>
<td>28.27</td>
<td>.55</td>
<td>-.91</td>
</tr>
<tr>
<td>2. Beck Depression Inventory-II</td>
<td>.76**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27.90</td>
<td>11.28</td>
<td>.19</td>
<td>-.96</td>
</tr>
<tr>
<td>3. Beck Hopelessness Scale</td>
<td>.56**</td>
<td>.60**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td>11.28</td>
<td>6.08</td>
<td>-.34</td>
<td>-1.23</td>
</tr>
<tr>
<td>4. Beck Scale for Suicidal Ideation</td>
<td>.47**</td>
<td>.40**</td>
<td>.53**</td>
<td>--</td>
<td></td>
<td></td>
<td>5.86</td>
<td>7.86</td>
<td>1.28</td>
<td>.34</td>
</tr>
<tr>
<td>6. Social Support Questionnaire—Short Form</td>
<td>-.22</td>
<td>-.22*</td>
<td>-.43**</td>
<td>-.38**</td>
<td>--</td>
<td></td>
<td>27.11</td>
<td>8.27</td>
<td>-.78</td>
<td>-.44</td>
</tr>
<tr>
<td>Satisfaction subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. PTSD Symptom Scale—Self-Report</td>
<td>.56**</td>
<td>.48**</td>
<td>.35*</td>
<td>.35**</td>
<td>-.22*</td>
<td>--</td>
<td>19.32</td>
<td>15.38</td>
<td>.27</td>
<td>-1.20</td>
</tr>
</tbody>
</table>

*Note.  *p < .05.  **p < .01
Table 3

*Principle Components Analysis with Factor Loadings, Communalities, Means, Standard Deviations, and Item-Total Correlations for the Perceived Burden Scale (PBS) Items*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor Loadings</th>
<th>$h^2$</th>
<th>$M$</th>
<th>$SD$</th>
<th>Item-Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Drag down others</td>
<td>.42</td>
<td>.18</td>
<td>1.26</td>
<td>1.12</td>
<td>.40</td>
</tr>
<tr>
<td>2. Physical pain</td>
<td>.45</td>
<td>.20</td>
<td>1.01</td>
<td>1.26</td>
<td>.44</td>
</tr>
<tr>
<td>3. Difficult to count on me</td>
<td>.65</td>
<td>.43</td>
<td>1.20</td>
<td>1.20</td>
<td>.63</td>
</tr>
<tr>
<td>4. I am more trouble than I am worth</td>
<td>.80</td>
<td>.63</td>
<td>1.78</td>
<td>1.40</td>
<td>.77</td>
</tr>
<tr>
<td>5. Stay away from others</td>
<td>.72</td>
<td>.52</td>
<td>1.70</td>
<td>1.58</td>
<td>.71</td>
</tr>
<tr>
<td>6. Never contributed to society</td>
<td>.42</td>
<td>.18</td>
<td>1.38</td>
<td>1.25</td>
<td>.40</td>
</tr>
<tr>
<td>7. I am a burden to others</td>
<td>.84</td>
<td>.71</td>
<td>1.60</td>
<td>1.47</td>
<td>.82</td>
</tr>
<tr>
<td>8. Not carrying weight with chores</td>
<td>.52</td>
<td>.27</td>
<td>1.53</td>
<td>1.48</td>
<td>.50</td>
</tr>
<tr>
<td>9. Dragging down family finances</td>
<td>.63</td>
<td>.40</td>
<td>1.14</td>
<td>1.46</td>
<td>.60</td>
</tr>
<tr>
<td>10. Burden on society</td>
<td>.80</td>
<td>.64</td>
<td>1.21</td>
<td>1.40</td>
<td>.77</td>
</tr>
<tr>
<td>11. Family better off without me</td>
<td>.78</td>
<td>.60</td>
<td>1.01</td>
<td>1.30</td>
<td>.75</td>
</tr>
<tr>
<td>12. Friends better off without me</td>
<td>.83</td>
<td>.68</td>
<td>.96</td>
<td>1.32</td>
<td>.80</td>
</tr>
<tr>
<td>13. Society better off without me</td>
<td>.86</td>
<td>.73</td>
<td>.98</td>
<td>1.28</td>
<td>.83</td>
</tr>
<tr>
<td>14. I make others uncomfortable</td>
<td>.72</td>
<td>.52</td>
<td>1.52</td>
<td>1.34</td>
<td>.70</td>
</tr>
<tr>
<td>15. I create problems for other people</td>
<td>.76</td>
<td>.57</td>
<td>1.12</td>
<td>1.23</td>
<td>.74</td>
</tr>
<tr>
<td>16. I weigh down others with problems</td>
<td>.75</td>
<td>.56</td>
<td>1.23</td>
<td>1.31</td>
<td>.73</td>
</tr>
<tr>
<td>17. I feel like a waste of space</td>
<td>.85</td>
<td>.72</td>
<td>1.19</td>
<td>1.31</td>
<td>.82</td>
</tr>
<tr>
<td>18. I have nothing to offer society</td>
<td>.79</td>
<td>.63</td>
<td>1.28</td>
<td>1.44</td>
<td>.76</td>
</tr>
<tr>
<td>19. I have nothing to offer people</td>
<td>.80</td>
<td>.64</td>
<td>1.27</td>
<td>1.39</td>
<td>.77</td>
</tr>
<tr>
<td>20. Difficult to be supportive of others</td>
<td>.61</td>
<td>.38</td>
<td>1.10</td>
<td>1.18</td>
<td>.59</td>
</tr>
<tr>
<td>21. Tired of bringing others down</td>
<td>.79</td>
<td>.62</td>
<td>1.42</td>
<td>1.48</td>
<td>.77</td>
</tr>
<tr>
<td>22. Never feel like the strong one</td>
<td>.63</td>
<td>.40</td>
<td>1.60</td>
<td>1.36</td>
<td>.60</td>
</tr>
<tr>
<td>23. Problems in the family are my fault</td>
<td>.67</td>
<td>.45</td>
<td>1.04</td>
<td>1.35</td>
<td>.64</td>
</tr>
</tbody>
</table>

*(Table 3 continues)*
**Table 3 (continued)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Item Description</th>
<th>Factor Loadings</th>
<th>$h^2$</th>
<th>$M$</th>
<th>$SD$</th>
<th>Item-Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>Problems with friends are my fault</td>
<td>.74</td>
<td>.56</td>
<td>1.14</td>
<td>1.37</td>
<td>.73</td>
</tr>
<tr>
<td>25.</td>
<td>People would feel better if I wasn’t around</td>
<td>.83</td>
<td>.68</td>
<td>1.06</td>
<td>1.25</td>
<td>.80</td>
</tr>
<tr>
<td>26.</td>
<td>Difficult to complete daily activities</td>
<td>.65</td>
<td>.42</td>
<td>2.07</td>
<td>1.31</td>
<td>.63</td>
</tr>
<tr>
<td>27.</td>
<td>I bring myself down</td>
<td>.69</td>
<td>.47</td>
<td>2.21</td>
<td>1.21</td>
<td>.67</td>
</tr>
<tr>
<td>28.</td>
<td>I’m a burden because of my depression</td>
<td>.74</td>
<td>.54</td>
<td>2.09</td>
<td>1.51</td>
<td>.72</td>
</tr>
<tr>
<td>29.</td>
<td>Afraid to burden other people</td>
<td>.72</td>
<td>.51</td>
<td>1.51</td>
<td>1.49</td>
<td>.70</td>
</tr>
<tr>
<td>30.</td>
<td>Don’t care if I’m a burden</td>
<td>.45</td>
<td>.20</td>
<td>.96</td>
<td>1.29</td>
<td>.43</td>
</tr>
</tbody>
</table>

*Note. $N = 81$ and $a = .96$ for entire measure.*
### Table 4

*Intercorrelations for Study Variables (N = 81)*

<table>
<thead>
<tr>
<th>Measures</th>
<th>Age</th>
<th>Gender</th>
<th>Race</th>
<th>Marital status</th>
<th>Employment</th>
<th>Physical health</th>
<th>Previous psych hospital.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Burden Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beck Depression Inventory-II</td>
<td>-0.20</td>
<td>0.04</td>
<td>0.06</td>
<td>-0.7</td>
<td>-0.30**</td>
<td>0.04</td>
<td>0.34**</td>
</tr>
<tr>
<td>Beck Hopelessness Scale</td>
<td>-0.18</td>
<td>0.01</td>
<td>0.00</td>
<td>-0.5</td>
<td>-0.32**</td>
<td>-0.05</td>
<td>0.36**</td>
</tr>
<tr>
<td>Beck Scale for Suicidal Ideation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support Questionnaire Satisfaction subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PTSD Symptom Scale—Self-Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Note. Values are Pearson correlations except for physical health values which are Spearman’s rho correlations. **p < .01**
Table 5

Hierarchical Linear Regression Analysis Summary with Current Suicidal Ideation as Measured by the Beck Scale for Suicidal Ideation (BSSI) as the Criterion

<table>
<thead>
<tr>
<th>Step and Predictors</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
<th>$R^2$</th>
<th>$R^2$ change</th>
<th>F</th>
<th>F change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td>.13</td>
<td></td>
<td>5.63**</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>-.69</td>
<td>1.90</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTSD Symptom Scale—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Report</td>
<td>.18</td>
<td>.06</td>
<td>.35**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
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<td>.22</td>
<td>.10</td>
<td>7.35***</td>
<td>9.56**</td>
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<td>.10</td>
<td>-.32**</td>
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<tr>
<td>Satisfaction subscale</td>
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<td>Step 3</td>
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<td></td>
<td></td>
<td>.27</td>
<td>.05</td>
<td>7.09***</td>
<td>5.12</td>
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<tr>
<td>Beck Depression</td>
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<td>.08</td>
<td>.26</td>
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<td>.34</td>
<td>.07</td>
<td>7.86***</td>
<td>8.25**</td>
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<td>.48</td>
<td>.17</td>
<td>.37**</td>
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<td>.37</td>
<td>.02</td>
<td>7.10***</td>
<td>2.50</td>
</tr>
<tr>
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<td>.07</td>
<td>.04</td>
<td>.25</td>
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</tr>
</tbody>
</table>

Note. **p < .01. ***p < .001
Table 6

Hierarchical Linear Regression Analysis Summary with Current Depressive Severity as Measured by the Beck Depression Inventory (BDI-II) as the Criterion

<table>
<thead>
<tr>
<th>Step and Predictors</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
<th>(R^2)</th>
<th>(R^2) change</th>
<th>F</th>
<th>F change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Previous Hospitalization</td>
<td>5.81</td>
<td>2.22</td>
<td>.25</td>
<td></td>
<td></td>
<td>13.39</td>
<td>***</td>
</tr>
<tr>
<td>Employment</td>
<td>-5.07</td>
<td>2.39</td>
<td>-.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>PTSD Symptom Scale—Self-Report</td>
<td>.29</td>
<td>.07</td>
<td>.39***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support Questionnaire—Satisfaction Subscale</td>
<td>-.23</td>
<td>.13</td>
<td>-.17</td>
<td></td>
<td></td>
<td>11.09</td>
<td>***</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Burden Scale</td>
<td>.26</td>
<td>.04</td>
<td>.64***</td>
<td></td>
<td></td>
<td>23.25</td>
<td>***</td>
</tr>
</tbody>
</table>

Note. **p < .01. ***p < .001
Table 7

Hierarchical Linear Regression Analysis Summary with Hopelessness as Measured by the Beck Hopelessness Scale (BHS) as the Criterion

<table>
<thead>
<tr>
<th>Step and Predictors</th>
<th>$B$</th>
<th>$SEB$</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$R^2$ change</th>
<th>$F$</th>
<th>$F$ change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td>.20</td>
<td></td>
<td>6.21**</td>
<td></td>
</tr>
<tr>
<td>Previous Hospitalization</td>
<td>2.38</td>
<td>1.33</td>
<td>.19</td>
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<td>1.43</td>
<td>-.18</td>
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</tr>
<tr>
<td>PTSD Symptom Scale—Self-Report</td>
<td>.11</td>
<td>.04</td>
<td>.28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td>.36</td>
<td>.16</td>
<td>10.49***</td>
<td>18.98***</td>
</tr>
<tr>
<td>Social Support Questionnaire—Satisfaction subscale</td>
<td>-.31</td>
<td>.07</td>
<td>-.42***</td>
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<td></td>
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</tr>
<tr>
<td>Step 3</td>
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<td></td>
<td>.48</td>
<td>.12</td>
<td>13.90***</td>
<td>18.09***</td>
</tr>
<tr>
<td>Beck Depression Inventory-II</td>
<td>.24</td>
<td>.06</td>
<td>.44***</td>
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<tr>
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<td></td>
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<td>.01</td>
<td>12.00***</td>
<td>1.79</td>
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<tr>
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<td>.03</td>
<td>.18</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.** $**p < .01. ***p < .001*
Figure 1

Screeplot of the Perceived Burden Scale (PBS) Eigenvalues for each Potential Component
Figure 2

Normal Probability Plot (P-P) of the Regression Standardized Residual with the Beck Scale for Suicidal Ideation (BSSI) as the Dependent Variable
Appendix A: Recruitment Flyer

Exploring the Recovery from Depression

Are you:

✓ 18 years of age or older?
✓ Suffering from depression?
✓ Interested in contributing to the understanding of this disorder?

Please call Abby (1) or Nicole (2) at 216-368-5350 for more information regarding participating in a research study investigating the causes and effects of depression.

**Compensation will be provided**
Appendix B: Recruitment Handouts

Are you:
✓ 18 years of age?
✓ Suffering from depression?
✓ Interested in contributing to the understanding of this disorder?

Please call Abby (1) or Nicole (2) at 216-368-5350 for more information regarding participation in a research study investigating the causes and effects of depression

Please note:
Compensation will be provided.

Are you:
✓ 18 years of age?
✓ Suffering from depression?
✓ Interested in contributing to the understanding of this disorder?

Please call Abby (1) or Nicole (2) at 216-368-5350 for more information regarding participation in a research study investigating the causes and effects of depression

Please note:
Compensation will be provided.

Are you:
✓ 18 years of age?
✓ Suffering from depression?
✓ Interested in contributing to the understanding of this disorder?

Please call Abby (1) or Nicole (2) at 216-368-5350 for more information regarding participation in a research study investigating the causes and effects of depression

Please note:
Compensation will be provided.
Appendix C: Informed Consent Form

VA Department of Veterans Affairs

<table>
<thead>
<tr>
<th>VA RESEARCH CONSENT FORM</th>
</tr>
</thead>
</table>

Subject Name:  
Date: ____________
Title of Study: Exploring the Recovery from Depression
Principal Investigator: James C. Overholser, Ph.D.
VAMC: Cleveland (541)
Consent Version Date: 2008

DESCRIPTION OF RESEARCH BY INVESTIGATOR

Note: The consent form should include the following section headings:

<table>
<thead>
<tr>
<th>I. Purpose of the Study</th>
<th>V. Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. Description of the Study</td>
<td>VI. Alternative Procedure(s)/Treatment(s)</td>
</tr>
<tr>
<td>III. Inconveniences</td>
<td>VII. Use of Research Results</td>
</tr>
<tr>
<td>IV. Discomforts/Risks/Side Effects</td>
<td>VIII. Special Circumstances</td>
</tr>
</tbody>
</table>

TO POTENTIAL PARTICIPANTS: Federal regulations require written informed consent before participation in a research study. This is to be certain that research volunteers know the nature and risks of the study, so they can make an informed decision about participation. You are asked to read the following information and discuss it with the investigator, so that you understand this research study and how it may affect you. Your signature on this form means that you have been fully informed and that you freely give your consent to participate. It is also important that you read and understand these principles that apply to all individuals who agree to participate in the research project below:

1. Taking part in the research is entirely voluntary.

2. You may not personally benefit from taking part in the research but the knowledge obtained may help the health professionals caring for you to better understand the disease/condition and how to treat it.

3. You may withdraw from the study at any time without anyone objecting and without penalty or loss of any benefits to which you are otherwise entitled.
4. If, during your participation in the research project, new information becomes available concerning your condition (disease) or concerning better therapies, which may affect your willingness to continue in the research project, your doctor will discuss the new information with you and will help you make a decision about continuing in the research.

5. The purpose of the research, how it will be done, and what your part in the research will be, is described below. Also described are the risks, inconveniences, discomforts, and other important information, which you need to make a decision about whether or not you wish to participate. You are urged to discuss any questions you have about this research with the research staff members.

I. PURPOSE OF THE STUDY:

We are asking you to participate in a research study investigating depression. You are being asked to participate in this study because it is our understanding that you may be experiencing symptoms of depression. The purpose of this research involves gathering information about the optimal assessment and treatment of depression. Information used by this research study includes your medical record (chart), the information packets that you will be asked to complete, and the information discussed in the brief interview.

II. DESCRIPTION OF STUDY:

If you agree to participate in this study, it will last for approximately one hour today and will take place at the Louis Stokes Cleveland Department of Veterans Affairs Medical Center (LSCDVAMC). Participation in this study involves completing several questionnaires and a short interview about depression and other psychological problems. The first part of the study involves a series of yes/no questions pertaining to depression or other psychological problems that you may have encountered. The second part of today’s meeting involves the completion of questionnaires pertaining to depression, hopelessness, coping, and life meaning. You will be contacted by phone in approximately three months to schedule the second phase of the study which may occur by phone or in person at your next outpatient visit. The follow-up involves the completion of questionnaires similar to the questionnaires that you will complete today. Your participation today does not require you to participate in the follow-up scheduled in three months. If you do agree to participate in the follow-up, you will be asked to provide your first name and phone number on a separate sheet.

III. INCONVENIENCES:

The information requested from you today will take approximately one hour to complete. In addition to the information collected today, you will be contacted in three months (via telephone or in person) for a brief re-evaluation of your
depressive symptoms and about the treatment you received. The phone interview will last approximately 20 minutes. Your consent now simply allows the investigators to contact you later. At that time, you can decide whether or not you want to continue with the phone interview.

IV. DISCOMFORTS / RISKS / SIDE EFFECTS:

The risks of your participation in this study primarily involve talking about emotional issues and protecting your confidentiality. Although it is unlikely that you will be exposed to any risks by participating in this study, you will be asked a variety of questions about your life and emotions. Some of the questions may force you to confront various emotions as you discuss these different issues. If you experience distress during the initial interview you may discontinue with the study and will have the opportunity to discuss your thoughts and feelings with the research assistant. If you experience distress after the interview you may contact any of your primary providers in the outpatient psychiatric clinic to discuss your issues/concerns.

V. BENEFITS:

You will not directly benefit from participating in this study.

VI. ALTERNATIVE PROCEDURE(S)/TREATMENT(S)

Because this study offers no direct benefits to participants, your only alternative is to not participate.

VII. USE OF RESEARCH RESULTS:

By joining this study, you give the investigators your permission for them to collect data from your medical records to determine if you are eligible and if you remain eligible to participate in the study.

Any information obtained about you in this study will be treated as confidential and will be safeguarded in accordance with the Privacy Act of 1974. The only personally identifying information that will be attached to the information packets will be your first name. Research records will be kept indefinitely and kept in a locked file. In order to comply with federal regulations, records identifying you may be reviewed by authorized representatives of the Institutional Review Board of the LSCDVAMC, VA, authorized representatives of the Institutional Review Board of Case Western Reserve University, Dr. Overholser, students authorized by him, or other federal regulatory officials responsible for oversight of human subject protection. By signing this document, you consent to such inspection.
Findings from this study may be presented at a professional meeting or published in a professional journal; however, no names or any other information that would allow for subjects to be identified will be included in the presentations.

VIII. SPECIAL CIRCUMSTANCES:

Financial Considerations

Your participation in this research study will be done at no cost to you. You will be paid for your time and effort for being in this research project. You will be paid $10.00 in cash for completion of both the initial interview and the information packet. If you withdraw from the study without completing both the interview and the information packet, you will not be paid $10.00 in cash. You will receive the payment upon completing the information packet. In addition, you will be paid an additional $10.00 in cash if you are contacted and complete the follow-up interview. You will receive the payment upon completing the follow-up information packet. If you complete both the initial interview and the follow-up interview, you will have received $20.00 total.

Ending Participation

You may stop your participation in the study at anytime. In addition, the investigators may stop your participation in this study without your consent, for example, if they think that it will be in your best interest, if you do not follow the study plan, if you experience a study-related injury, or for any other reason.

Compensation for Research-Related Injury

If you sustain physical injury as a direct result of your study participation, medical care will be provided by the Cleveland VA Medical Center at no cost to you. Financial compensation for such things as lost wages, disability, or discomfort due to an injury is not available.
RESEARCH SUBJECTS’ RIGHTS: I have read or have had read to me all of the preceding information. Dr./Mr./Ms ___________________________ has explained the study to me and answered all of my questions. I have been told of the risks or discomforts and possible benefits of the study. I have been told of other choices of treatment available to me.

I understand that I do not have to take part in this study, and my refusal to participate will involve no penalty or loss of rights to which I am entitled. I may withdraw from this study at any time without penalty or loss of VA or other benefits to which I am entitled.

The results of this study may be published, but I will not be identified in publications by name, photograph, or other identifiers. My records, including my name and results of my participation, may be revealed as required by laws and regulations of state and federal agencies.

If I have any questions about this study or if I sustain a research related injury, I can call: Dr. James Overholser at Daytime (216) 368-2686 / Evening (216) 368-2852 or Dr. Josephine Ridley at Daytime (216) 791-3800 x5730 / Evening (216) 570-2798. If any medical problems occur in connection with this study, the Cleveland VA Medical Center will provide emergency care.

If I have any questions about my rights as a research subject, I have been told I can call the LSCDVAMC Patient Representative at (216) 791-3800 ext. 4026 or the LSCDVAMC Institutional Review Board Office at (216) 791-3800 ext. 4658. I understand my rights as a subject, and I voluntarily consent to participate in this study.

Subject’s Signature ________________________________ Date ________________

Signature of Subject’s Representative ________________________________

Date (if subject not competent) ________________________________

Signature of Witness (not associated with study) ________________________________

Date ________________

Signature of Person Obtaining Consent ________________________________

Date ________________
Appendix D: Demographics Coversheet

Age: _____________

Race: 1=White  2=Asian  3=Black  4=Hispanic  5=Other _____________

Are you employed: 1=Full-time  2=Part-time  3=Unemployd  4=Other _____________

Occupation: ____________________________________________________________

Marital Status:

1=Single, never been married
2=Married, first marriage  length of marriage (years): _______
3=Married, remarried  length of marriage (years): _______
4=Separated
5=Divorced  how long divorced? (years): _______
6=Widowed
7=Cohabitating, living together

Q1. In general would you say your physical health is:

1=Poor  2=Moderately Poor  3=Average  4=Moderately good  5=Very good

Q2. During the past month, how much have your work and school activities been impaired by the problems that brought you in for treatment?

1=Not at all  2=A little bit  3=Somewhat  4=Quite a lot  5=Very much

Q3. During the past month, how much have your social life and leisure activities been impaired by the problems that brought you in for treatment?

1=Not at all  2=A little bit  3=Somewhat  4=Quite a lot  5=Very much

Q4. During the past month, how much have your family life and home responsibilities been impaired by the problems that brought you in for treatment?

1=Not at all  2=A little bit  3=Somewhat  4=Quite a lot  5=Very much

Q5. During the past month, how much have your overall work and social functioning been impaired by the problems that brought you in for treatment?

1=Not at all  2=A little bit  3=Somewhat  4=Quite a lot  5=Very much
Appendix E: Suicidal History Form

Attempted Suicide:  
   ______ Never  
   ______ Recently (past month)  
   ______ Sometime in the Past  ______ months ago

Most Recent Suicide Method Used:  
   ______ Drug OD – drug used = __________  
   ______ How much=__________  
   ______ Gunshot  
   ______ Cutting wrists  
   ______ Hanging  
   ______ CO poisoning  
   ______ Other (describe)

Location of Suicide Act:  
   Home  Garage  Car  Other_______

Wrote a suicide note?  
   Yes  No  

Wrote a will?  
   Yes  No

Did you tell anyone before ______ or after ______ you attempted?  
   Yes  No

Did anyone accidentally disrupt your attempt?  
   Yes  No

Were you hoping that someone would find you and help you after the attempt?  
   Yes  No

Suicide Precipitant:  
   ______ chronic medical problems

Interpersonal problems:  
   ______ divorce or break-up  
   ______ separation  
   ______ bereavement

Recent interpersonal conflict:  
   ______ with spouse  
   ______ with family member  
   ______ with peers

Recent job problems:  
   ______ financial problems  
   ______ lost job  
   ______ conflict on the job

Drunk or high at the time of the suicidal act?  
   Yes  No

Did you need any kind of medical attention after the attempt?  
   Yes  No

Were you alone at the time of the attempt?  
   Yes  No

Prescribed antidepressant medications prior to the suicidal act?  
   Yes  No

Have you ever been previously hospitalized for psych problems?  
   Yes  No

How many times? _____
Appendix F: Perceived Burden Scale (PBS)

**How much do you agree with the following statements?**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>My negative emotions seem to drag down others around me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My physical pain has become a burden to others around me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Others find it difficult to count on me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I often think that I am more trouble than I am worth.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I try to stay away from others in order to avoid bringing them down.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have never really contributed much to society.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel like I am a burden to others.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have not been “carrying my weight” with household chores.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel like I am dragging down my family’s finances.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel like I am a burden on society.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>In general, I feel my family would be better off without me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>In general, I feel my friends would be better off without me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>In general, I feel that society would be better off without me.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I often think that I make others around me uncomfortable.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel like I create problems for other people.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel like I “weigh down” others with my problems.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I often feel like I’m a “waste of space”.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel like I have nothing to offer society.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Statement</td>
<td>Not at all</td>
<td>A little bit</td>
<td>Somewhat</td>
<td>Quite a bit</td>
<td>A great deal</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------</td>
<td>--------------</td>
<td>----------</td>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>I feel like I have nothing to offer other people.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I find it difficult to be supportive of others.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am tired of bringing others down.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>I never feel like “the strong one” in my relationships.</td>
<td>0</td>
<td>1</td>
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</tr>
<tr>
<td>The problems in my family are all my fault.</td>
<td>0</td>
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</tr>
<tr>
<td>The problems with my friendships are all my fault.</td>
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<tr>
<td>People would feel better off if I wasn’t around.</td>
<td>0</td>
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<tr>
<td>I often find it difficult to complete daily activities.</td>
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</tr>
<tr>
<td>I feel like I often bring myself down.</td>
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</tr>
<tr>
<td>I feel that I am a burden because of my depression.</td>
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<td>1</td>
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<td>4</td>
</tr>
<tr>
<td>I like to be around other people but I’m afraid of burdening them.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I don’t care whether I’m a burden or not.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
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</table>
References


