# REASONS FOR LIVING AMONG FEMALE AFRICAN AMERICAN SUICIDE ATTEMPTERS AND NON-ATTEMPTERS: A CASE CONTROLLED SAMPLE STUDY

by

#### KELCI C. FLOWERS

(Under the Direction of Rheeda L. Walker)

#### ABSTRACT

Suicide within the African American community is paradoxical; despite the overrepresentation of potentially suicidogenic factors (i.e., discrimination), a relatively low number of suicide deaths are reported. Research has indicated that reasons for living may account for variability in suicidality among African American women (e.g., Richardson-Vejlgaard et al., 2009). The present study examined the relationship between suicidality and self-reported reasons for living among African American women. Female African American suicide attempters (n = 77) and non-attempters (n = 73) completed measures of depressive symptomatology, spiritual well-being, reasons for living, and suicide intent and lethality. The results suggest that suicide attempters report more reasons for living than non-attempters. Among suicide attempters, high suicide intent and lethality were associated with more reasons for living. Results are discussed in terms of the potential benefit of incorporating reasons for living in suicide treatment and prevention programs.

INDEX WORDS: African American, women, suicide, reasons for living

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#### CHAPTER 1

#### INTRODUCTION

#### Overview

Suicide is defined as a "fatal self-inflicted destructive act with explicit or inferred intent to die" (Goldsmith, Pellmar, Kleinman, & Bunney, 2002, p. 27) and, similarly, a suicide attempt refers to "intentional self-harm that is not self-mutilatory in nature and requires medical evaluation and treatment in an emergency or intensive unit" (Gaysina, Zainullina, Gabdulhakov, & Khusnutdinova, 2006, pg. 71). In the United States, suicide is one of the leading causes of death, accounting for 10.96 per 100,000 deaths annually (Centers for Disease Control and Prevention [CDC]; 2006). However, these rates vary across gender and ethnic groups. Men are almost four times more likely to die by suicide than women (World Health Organization [WHO], 2005), despite the fact that women are significantly more likely to attempt suicide (Maris, Berman, & Silverman, 2000). Because of the lasting devastation that these preventable deaths cause within families and the community and the high rate of suicide among Americans, it is essential to better understand the protective factors that may decrease the likelihood that individuals will engage in suicidal behaviors.

Along with understanding protective factors, it is also important to be able to recognize the risk factors associated with suicide attempts and deaths. An accumulation of risk factors such as chronic discrimination and poverty are present within the African American community. Effects of these stressors are revealed through marked elevations of high blood pressure and other physiological indicators of life stress (e.g., Kreiger & Sidney, 1996; McNeilly et al., 1995; Steffen, McNeilly, Anderson, & Sherwood, 2003). Despite African Americans' relatively frequent utilization of emergency psychological and psychiatric services (e.g., Compton, Thompson, & Kaslow, 2005; Meadows, Kaslow, Thompson, & Jurkovic, 2005), the limited access to outpatient mental health care (together with chronic stress) should theoretically confer high risk for suicidality (Gabbidon & Peterson, 2006). Despite this vulnerability to increased risk, a relatively low number of suicides are reported in this population. As a result, suicide within the African American community is highly paradoxical. Researchers have speculated that this decreased suicide rate could be due to the presence of multiple protective factors, such as religiosity and spirituality (e.g., Fitzpatrick, Piko, & Miller, 2008), that are engrained in the African American community. Nevertheless, "1 African American dies by suicide every 4.5 hours" (Crosby & Molock, 2007). Although suicide occurs less frequently among African Americans, and particularly African American women among whom suicide only accounts for 1.39 per 100,000 deaths (CDC, 2006), it is important to understand the particular protective factors that may differentially protect these women from suicide deaths, despite engaging in suicidal behaviors as frequently as European American women (Nisbet, 1996). The purpose of this study is to examine suicidality among African American women and the potential protective nature of self-reported reasons for living. Therefore, in this paper I will discuss the available research on risk and protective factors for suicidal behaviors among African Americans, and explain why variability in reasons for living may account for differences in suicidality among African American women.

#### **Risk Factors for Suicide**

Risk factors for suicide attempts and completions among African Americans include psychological distress (e.g., Joe, Baser, Breeden, Neighbors, & Jackson, 2006; Kaslow et al., 2004), childhood or adult trauma (Kaslow et al., 2000; 2002), substance dependence (Joe et al., 2006; Kaslow et al., 2000; 2004; Kung, Pearson, & Wei, 2005), life stress (Kaslow et al., 2002; 2005) and various sociodemographic (e.g., Joe et al., 2006; Willis, Coombs, Drentea, & Cockerham, 2003) and personality (e.g., Kaslow et al., 2000; 2002; 2004) characteristics. Although many of these risk factors have been observed within European American samples as well, previous research has unsuccessfully shown that risk factors for suicidal behavior among European Americans can be applied to African American samples. Namely, previous research has failed to demonstrate that the "known risk factors" for suicides observed in predominately European American samples, such as depression<sup>1</sup>, financial stressors, and chronic disease (Abe, Mertz, Powell, & Hanzlick, 2006), are applicable to African American populations.

To examine the sociodemographic risk factors associated with suicide deaths among African Americans, Willis and colleagues (2003) conducted a study that utilized the 1993 National Mortality Followback Survey (NMFS). This survey was assembled by the National Center for Health Statistics and used a nationally representative sample of adults and adolescents over the age of 15 who died in 1993 to gather more information about the risk and protective factors associated premature death. Analyses of the NMFS data revealed age, residence, and firearm ownership were associated with increased rates of suicide deaths. Specifically, individuals who died as the result of suicide were more likely to be under the age of 35-yearsold, live in Southeastern and Northeastern areas of the United States, and have a firearm present in their home. Similarly, Joe and colleagues (2006) found that Black women between the ages of 30- and 34-years-old and Black men between 25- and 29-years-old were at a higher risk for suicide death than older individuals. However, the results of this study indicated regional

<sup>&</sup>lt;sup>1</sup> Although history of a mood disorder does increase the risk for suicide attempts and completions for African Americans, the presence of an anxiety disorder appears to be a stronger risk factor after controlling for sociodemogaphic variables (Joe et al., 2006).

differences such that suicide deaths may occur more frequently in Midwestern (not Southeastern or Northeastern) areas of the United States. Other research (Wasserman & Stack, 2000) has found that occupational status is associated with suicidality among African American men, such that those with high-status occupations (i.e., executive administrative, and managerial occupations) are more vulnerable to suicide deaths. In fact, national data suggests that for every year of education among African American men, the risk of suicide increases 8 percent (Stack, 1998). To date, no known investigations of occupational status and suicidality have been conducted for African American women.

Previous research has also examined the association between several intrapsychic characteristics and nonfatal and fatal suicide attempts, such as hopelessness, aggression, and suicidal/death ideation. For example, Kaslow and colleagues (2000; 2002; 2004) have conducted multiple studies to better understand different types of risk factors, including person factors, associated with suicide within the African American community. Participants in these studies were African American women and men who either presented to a large southeastern university affiliated hospital for medical or psychological services following a suicide attempt or treatment for nonemergency medical problems. They found that suicide attempt status was significantly associated with hopelessness and aggression. In other analyses, Kaslow and colleagues (2004) found that repeat suicide attempters report significantly more aggression than first-time attempters. Furthermore, both Willis and colleagues' (2003) and Castle and colleagues' (2004) investigations of the NMFS data indicated that individuals who die by suicide are significantly more likely to have threatened others with violence during their past, which indicates that they may have been more aggressive as well. With respect to death and suicidal ideation, other research (Castle, Duberstein, Meldrum, Conner, & Conwell, 2004) suggests that American

Africans who endorse these thoughts may be more susceptible to fatal suicide attempts than those who do not.

Along with intrapsychic characteristics, researchers have also studied the relationship between various mental disorders and suicidal behavior. According to the National Survey of American Life (Joe et al., 2006), African Americans who have been diagnosed with at least one mental disorder (e.g., mood, anxiety, substance abuse, and eating disorders) are significantly more likely to attempt suicide than those without a diagnosis. Similarly, Kaslow and colleagues (2000; 2002; 2004; 2006) found that individuals who report more psychological distress, posttraumatic stress, drug use, alcohol use, and depressive affect were more likely to attempt suicide and experience multiple suicide attempts throughout their lives. Several studies have also found that marijuana (Kung et al., 2005) and cocaine use (Willis et al., 2003), and alcohol consumption (Castle et al., 2004; Price, Thompson, & Dake, 2004) are associated with suicide deaths, though none examined suicide attempts. Despite the continually demonstrated finding that African Americans with a mental health diagnosis are more likely to engage in suicidal behaviors, the limited access to mental health care in African American communities may hinder the detection of these at-risk individuals. Therefore, it is important to better understand other, potentially more pertinent, factors associated with African American suicides.

Similar to mental disorders, interpersonal difficulties and life stress among African Americans are risk factors for suicidal behavior that have been a focus of research. This research has indicated that a history of relationship discord, both non-physical and physical partner abuse, and childhood maltreatment is significantly associated with suicide attempt status (Kaslow et al., 2000; 2002) and multiple suicide attempts (Kaslow, Jacobs, Young, & Cook, 2006) among African American women. Therefore, African American women who either have experienced or are currently experiencing abuse are more likely to attempt suicide than those who have not. This research has also expanded to suggest that the experience of multiple and/or serious life events, not only abuse, may predict suicide attempt status (Kaslow et al., 2005).

#### Protective Factors Associated with Resilience

Although understanding the risk factors associated with fatal and non-fatal suicide attempts is necessary in order to identify individuals susceptible to engaging in suicidal behaviors, it is arguably more important for prevention and intervention purposes to examine the potential protective factors that shield others from engaging in the same behaviors. Protective factors for suicide attempts and deaths among African Americans include cultural beliefs and tenants (Early & Akers, 1993; Kaslow et al., 2004; Walker, 2007), religiosity and spirituality (Fitzpatrick et al., 2008; Griffin-Fennell & Williams, 2006; Kaslow et al., 2004; Meadows et al., 2005), and various interpersonal influences (e.g., Kaslow et al., 2000; 2002; 2004; Meadows et al., 2005; Vanderwerker et al., 2007). The interpersonal influences that increase the resiliency of African Americans and can serve as protective factors against suicide among many individuals include social support (Compton et al., 2005; Kaslow et al., 2000; 2002; 2005; Meadows et al., 2005), family embeddedness (Compton et al., 2005), and family cohesion (Compton et al., 2005). Additionally, research has indicated that several intrapersonal characteristics, such as a sense of self-efficacy (Kaslow et al., 2002; Meadows et al., 2005) and increased reasons for living (Linehan, Goodstein, Neilsen, & Chiles, 1983; Richardson-Veilgaard, Sher, Oquendo, Lizardi, & Stanley, 2009) are associated with decreased suicide attempts and deaths.

Early and Akers (1993) conducted one of the first studies that qualitatively examined the protective role of cultural beliefs and tenants against suicide within the vulnerable African American community. These researchers interviewed 30 African American pastors and found

that the strong presence of the church and family within the African American community may increase the resiliency of African Americans. Their results also indicated that because of the Black "struggle," members of the African American community may view suicide as a denial of Black identity and culture and break from the Black experience. Similarly, Kaslow and colleagues (2004) found that African American men and women who reported higher ethnic identity, as indicated by scores on the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992), and more religiosity and spirituality, which may be embedded into many aspects of African American culture, were less likely to have attempted suicide than those who endorsed less ethnic identity, religiosity, and spirituality.

In addition to examining the potentially protective role of ethnic identity, spirituality, and religiosity in the African American community, Kaslow and colleagues (2000; 2002; 2005) have also conducted multiple studies to better understand the impact of interpersonal influences on suicidal behavior. Participants in these studies were African American men and women who presented to a large southeastern university affiliated hospital for treatment of medical or psychological services following a suicide attempt or for treatment of nonemergency medical problems. They found that level of social support was significantly associated with suicidality, such that individuals with higher levels of social support from family and friends were less likely to have a suicide attempt history. Therefore, these results indicate that social support may serve as a protective factor against suicidal behavior for many vulnerable African Americans. Furthermore, similar studies (Compton et al., 2005; Meadows et al., 2005) have demonstrated the relationship between high levels of reported family adaptability, family cohesion, social embeddedness, and both decreased suicide ideation and attempts.

Along with cultural and interpersonal variables, previous research has also examined the protective role of both sociodemographic and intrapersonal characteristics. With respect to sociodemographic characteristics, Willis and colleagues (2003) found that rural residence and educational attainment were protective factors against suicide completions within the African American community. Additionally, in their investigation of the prevalence and correlates of suicide ideation, planning, and attempts among African Americans, Joe and colleagues (2006) found that higher level of education was associated with less ideation and planning and fewer attempts. On the other hand, Kaslow and colleagues (2002) have also examined the influence of various intrapersonal factors among African American men and women. Their research indicates that hopefulness, a sense of self-efficacy, coping skills, and the ability to effectively obtain resources are associated with non-attempter status. Moreover, other research (Meadows et al., 2005) has replicated these findings.

Though previous research has examined the influence of cultural tenets and beliefs, spirituality and religiosity, and various sociodemographic and intrapersonal factors on suicidal behavior, "reasons for living" have remained understudied. Specifically, the ability to generate reasons for living may be associated with decreased suicide ideation and planning, fewer suicide attempts, and relatively fewer suicide deaths among African Americans. Reasons for living, as measured by the Reasons for Living Inventory (RFLI; Linehan et al., 1983), assesses an individual's ability to adaptively generate and consider reasons that he/she should value her/his life. Several studies (Bender, 2000; Lizardi et al., 2008; 2009; Morrison & Downey, 2000; Richardson-Vejlgaard et al., 2009) have used the RFLI to compare African Americans and European Americans. However, no known research to date has examined the possible protective

nature of reasons for living against suicide ideation and attempts in an African American casecontrol sample of suicide attempters.

The results of previous research that investigated between ethnic group differences in reasons for living indicate that, despite experiencing more suicidal ideation, African Americans report significantly more reasons for living than their European American counterparts, especially on the Moral Objections and Survival and Coping Beliefs subscales (Bender, 2000; Morrison & Downey, 2000; Richardson-Vejlgaard et al., 2009). Similar results have been observed in samples of women above the age of 60 years (Bender, 2000), as well as college students (Morrison & Downey, 2000) and inpatients (Richardson-Vejlgaard et al., 2009). Furthermore, one study (Walker, Alabi, Roberts, & Obasi, in press) has shown that increased reasons for living among African Americans are associated with having a more African-centered cultural worldview. Accordingly, reasons for living may be entrenched in the cultural beliefs and tenets of the African American community, such that individuals who embrace their ethnic identity and are more integrated into the African American community will also endorse more reasons for living. These results are particularly meaningful given the breath of literature conducted using predominately European American samples that suggests that reasons for living reliably differentiates suicidal and non-suicidal individuals in both non-clinical and clinical samples (Linehan et al., 1983). Furthermore, the significance of these results is amplified by the previous finding that reasons for living is associated with fewer and less lethal suicide attempts among European Americans, even after controlling for religious affiliation, education level, hopelessness, and anxiety (Lizardi et al., 2008; 2009).

#### **CHAPTER 2**

#### **RATIONALE AND HYPOTHESES**

Previous research has demonstrated a relationship between reasons for living and both suicidality and ethnicity (Bender, 2000; Morrison & Downey, 2000; Richardson-Vejlgaard et al., 2009), such that suicide attempters report fewer reasons for living than non-attempters and African Americans endorse more reasons for living than European Americans. Therefore, it is reasonable to assume that reasons for living will differentiate African American female suicide attempters and non-attempters, such that suicide attempters will report fewer reasons for living than non-attempters. Furthermore, because previous research has indicated that reasons for living is associated with lethality of suicide attempts (Lizardi et al., 2008; 2009), such that European Americans who report more reasons for living engage in less lethal suicidal behaviors, it is also reasonable to expect that this relationship will exist among African American women. As a result, the goal of the present study was to examine whether self-reported reasons for living is predictive of suicide attempt status (i.e., suicide attempter versus non-attempter), suicide intent, and lethality of suicide attempts in a sample of African American women.

Based on previous between-race group and mixed-race group research, the present study also sought to examine the relationship between the individual subscales and suicidality among African American women. This research indicates that African Americans score significantly higher on both the Moral Objections and Survival and Coping Beliefs subscales than European Americans (Bender, 2000; Morrison & Downey, 2000; Richardson-Vejlgaard et al., 2009). Similarly, Malone and colleagues (2000) found that a mixed-race group of depressed patients who had not attempted suicide scored significantly higher on each of the six RFLI subscales (Survival and Coping, Responsibility to Family, Child-Related Concerns, Fear of Suicide, Fear of Social Disapproval, and Moral Objectives) than their counterparts who did attempt suicide. Still other research suggests that, because of the religious values that may be engrained in the African American community (e.g., Griffin-Fennell & Williams, 2006; Kaslow et al., 2004) and the widespread belief that suicide represents a denial of Black culture and identity (Early & Akers, 1993; Morrison & Downey, 2000), suicidality among African American women may be associated with scores on the Fear of Suicide and Fear of Social Disapproval subscales. Given the potential relevance of each of the six RFLI subscales, they warrant empirical examination among a sample of African American suicide attempters and non-attempters.

#### Significance

Understanding suicide among African American women, a population that has relatively low reported rates of suicide deaths, is important because psychologists may be able to extrapolate the factors (i.e., reasons for living) that seemingly protect them from suicide and enhance these mechanisms in other populations. Specifically, if reasons for living do protect African American women from engaging in suicidal behaviors beyond religiosity and spirituality, it may be possible to incorporate more reasons for living generation and discussion in treatment programs for those who are at risk for future suicidal behavior.

#### Hypotheses

Given the goals of the present study, I had three main hypotheses:

(1) I hypothesized that suicide attempters would report fewer reasons for living than nonattempters and that, among suicide attempters, more reasons for living would be associated with decreased suicide lethality and intent.

- (2) I hypothesized that total scores on the RFLI would predict suicidality above and beyond spiritual well-being and depressive symptomatology, such that more reasons for living would be associated with decreased suicidality even after controlling for spiritual well-being and depressive symptomatology. Specifically, I hypothesized that non-suicide attempters would report more reasons for living than attempters and suicide attempters who report less suicide lethality and intent would report more reasons for living than their counterparts, even after controlling for spiritual wellbeing and depressive symptomatology.
- (3) I hypothesized that scores on each of the six RFLI subscales (Survival and Coping, Responsibility to Family, Child-related Concerns, Fear of Suicide, Fear of Social Disapproval, and Moral Objectives) would be associated with suicidality, such that higher scores on each subscale would be associated with decreased suicidality. Specifically, I hypothesized that suicide attempters would endorse fewer items on each subscale than non-attempters and, among suicide attempters, more reasons for living on each subscale would be associated with less suicide lethality and intent.

#### CHAPTER 3

#### METHOD

#### Participants

The participants in this study were a subset of African American women (n = 150) recruited for a larger study of suicidality among African American women and the effectiveness of a 10-week suicide intervention program at a large, university affiliated southern hospital that serves a primarily African American, urban, and low socioeconomic population. Participants were between the ages of 18 and 61 years old (M = 35.87, SD = 11.04) and either presented to the hospital emergency room after a nonfatal suicide attempt (n = 77) or an affiliated walk-in clinic for non-emergency services (n = 73). All data used for analyses was gathered from the initial/baseline assessment of the women prior to beginning the intervention program.

#### Procedure

When African American women presented to the hospital for emergency medical or psychiatric services following a non-fatal suicide attempt, the principle investigator (PI) was notified using a pager that was in operation 24 hours a day, seven days a week. After determining that the women were medically stable, the PI contacted a member of the research team to solicit their participation and conduct the necessary initial brief screening interview. The women who presented for non-emergency services were recruited from walk-in clinics by members of the research team who received verbal assent before proceeding with an identical initial brief screening interview. Per the screening questionnaire (see Appendix), participants were assigned to the suicide attempt group if they "reported a suicide attempt within the past year" (including their current suicide attempt). Participants were assigned to the control group if they "reported never having had a suicide attempt or a suicide attempt since age 18" (but not within the past year). Screening of the participants may have occurred at variable times depending on their medical condition upon presenting to the hospital. Recruitment to the study was discontinued if the women had been diagnosed with any life-threatening medical condition, demonstrated a significant cognitive impairment, or suffered from acute psychosis. In similar studies conducted by the same research team (e.g., Kaslow et al., 2000; Kaslow et al., 2004; Meadows et al., 2005), 3-5 percent of the sample was excluded based on the current exclusionary criteria. Furthermore, signed informed consent was obtained from all of the women prior to their participation and all measures were administered orally. Participants received compensation in the form of \$20 and tokens for the city's public transportation service.

#### Measures

*Demographics*. The participants were asked comprehensive demographic questions including their age, marital status, highest level of education, employment status.

*Depression. Beck Depression Inventory-II.* To measure depressive symptomatology, the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) was used. The BDI-II is a 21-item questionnaire that asks individuals to respond to statements consistent with the *Diagnostic and Statistical Manual of Mental Disorders* (4<sup>th</sup> ed.; American Psychiatric Association, 1994) diagnostic criteria for a Major Depressive Episode. Items reflect depressed mood, feelings of guilt and worthlessness, suicidal thoughts, psychomotor retardation, loss of appetite, sleep disturbance, and anhedonia. Respondents are asked to select one of four statements that most accurately describes their thoughts, emotions, and behaviors in the past two weeks; where statements range from  $\theta$  indicating an absence of that symptom and 3 indicating a presence of that symptom. Example items include the following: "I am too tired or fatigued to do most of the things I used to do" and "I feel I am a total failure as a person." Total possible scores range from 0 to 63. This assessment has shown excellent internal consistency and adequate validity (Beck et al., 1996; Dozois, Dobson, & Ahnberg, 1998). The BDI-II has also demonstrated comparably high internal consistency in clinical samples of African Americans (Joe, Woolley, Brown, Ghahramanlou-Holloway, & Beck, 2008). Cronbach's alpha for the present study further demonstrated the measure's excellent reliability ( $\alpha = .93$ ).

Spiritual Well-Being. To assess individuals' "relationship with God, self, [the] community, and environments that nurture and celebrate wholeness" (National Interfaith Coalition on Aging, 1975; p. 1), the Spiritual Well-Being Scale (SWBS; Ellison, 1983) was used. The SWBS is composed of two subscales with 10 items each: Religious Well-Being (RWB) and Existential Well-Being (EWB). The RWB subscale contains all items that specifically contain a reference to God (e.g., "My relationship with God helps me not to feel lonely). The remaining items (e.g., "I believe there is some real purpose for my life") constitute the EWB subscale. All item responses use a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree), where total scores can range from 20 to 120. According to the available literature, this measure has demonstrated excellent test-retest reliability and internal consistency (Ellison, 1983). With respect to validity, previous research has also found good convergent validity between the SWBS and measures of similar constructs, such as purpose-in-life, intrinsic and extrinsic religious orientation, and family togetherness (Ellison, 1983). Within entirely African American samples, including the present sample ( $\alpha = .90$ ), this measure has demonstrated equally high reliability (Brome, Owens, Allen, & Vevaina, 2000).

Suicidal Intent. The Suicide Intent Scale (SIS; Beck, Schuyler, & Herman, 1974) was used to measure intent associated with suicide attempts. This scale is a 20-item questionnaire that asks respondents to select one of three statements that most accurately describes the intensity of their wish to die at the time of their suicide attempt; where statements range from 0 indicating an absence of suicide intent and 2 indicating a presence of suicide intent. The SIS is divided into three sections. The first section is comprised of items 1-9 which asks individuals about the circumstances related to the suicide attempt, such as degree of planning for the suicide attempt and precautions again discovery and/or intervention taken by the individual. The second section, or the Self-Report section, is used to assess the individual's thoughts and feeling at the time of the attempt. This section includes items 10-15 and asks about aspects such as expectations regarding the fatality of the suicidal act and ambivalence toward living. The remaining five items of the measure (items 16-20) are supplemental, unscored items that assess the individual's current feelings about the attempt, previous number of suicide attempts, and possible drug and alcohol use at the time of the suicide attempt. Therefore, total scores can range from 0 to 30. Previous research has demonstrated that this measure has moderate concurrent validity with measures of depression and hopelessness (Beck et al., 1974) and high internal consistency and interrater reliability with both European American (Beck et al., 1974) and African American samples (Kaslow et al., 2006). However, with the present sample, the measure demonstrated lower internal consistency ( $\alpha = .61$ ).

*Lethality of Suicide Attempt.* The Lethality Scales (LS; Beck, Beck, & Kovacs, 1975) were used to assess the lethality of the participants' suicide attempts. This measure includes eight separate interviewer-administered scales that utilize a 9-point scale to characterize suicide attempts from 0 (*fully conscious and alert*) to 8 (*death*). Each of the eight scales is labeled

according to the method of suicide attempt and includes means such as shooting and hanging. Thus, individuals could potentially have up to eight lethality scores if they either utilized multiple methods during their suicide attempt or have experienced multiple suicide attempts. Actual (0-9) lethality ratings are assigned by the attending physician or medical professional and is based on a thorough medical chart review and examination of the patient's physical condition at the time of hospital admission. Previous research has demonstrated this measure's good interrater reliability (r = .80) (Lester & Beck, 1975).

Reasons for Living. To assess adaptive characteristics that might be diminished in individuals who experience negative affect or contemplate suicide, the Reasons for Living Inventory (RFLI; Linehan et al., 1983) was used. The RFLI is a 48-item questionnaire consisting of the following subscales: Survival and Coping Beliefs, Responsibility to Family, Child-Related Concerns, Fear of Suicide, Fear of Social Disapproval, and Moral Objections. The Survival and Coping Beliefs subscale includes 24 items to evaluate positive expectancies about and beliefs associated with the ability to cope with the future by using items such as, "I believe I can find a purpose in life, a reason to live" and "I have the courage to face life." The Responsibility to Family subscale asks seven questions such as, "My family depends upon me and needs me" to assess beliefs about an individual's responsibility his or her family. Similarly, the Child Related Concerns subscales asks three questions such as, "The effect on my children could be harmful" to assess beliefs about one's concerns about children. To distinguish suicidal and self-harm ideation, the Fear of Suicide subscale asks seven questions such as, "I am afraid of the unknown" and "I am afraid of the actual 'act' of killing myself (the pain, blood, violence)." The Fear of Social Disapproval subscale measures perceptions of social condemnation. The three questions on this subscale ask individuals to indicate their level of agreement to statements such as "Other

people would think I'm weak ad selfish." Last, the Moral Objections measures personal, religious, and spiritual beliefs that discourage and oppose suicidal acts. An example of the four items on this subscale include "I believe only God has the right to end a life." All of the items have responses on a 6-point Likert scale ranging from 1 (*extremely unimportant*) to 6 (*extremely important*). Total scores can range from 48 to 288. Previous research has demonstrated moderately high reliability and validity of this instrument (Linehan et al., 1983; Osman, Kopper, Linehan, Barrios, Gutierrez, & Bagge, 1999). Although no known research has been conducted using the RFLI in an entirely African American adult sample, the Cronbach's alpha computed for the present study demonstrated excellent reliability ( $\alpha = .96$ ).

#### **CHAPTER 4**

#### RESULTS

#### **Preliminary Analyses**

More than half of the women in the present sample were single, homeless, unemployed, had three or more children, a  $12^{\text{th}}$  grade education/GED or less, no health insurance, and a history of legal issues and incarceration (see Tables 1 -5). Furthermore, more than half reported being prescribed psychotropic medications and had a history of psychological or psychiatric treatment, a previous mental health diagnosis of depression, and a history of psychiatric hospitalizations (see Table 6). Among suicide attempters, the most common method of suicide attempt was ingesting drugs with sedative effects (n = 42, 54.5%), followed by ingesting drugs without sedative effects (n = 14, 18.2%) and cutting (n = 11, 14.3%). With respect to suicide lethality, as measured by the Lethality Scales (LS; Beck, Beck, & Kovacs, 1975), the majority of suicide attempters were "fully conscious and alert" or "fully conscious and sleepy" when they presented to the hospital for either medical or psychiatric services (see Table 7).

To test whether demographic differences existed between suicide attempters and controls on age, educational attainment, and monthly household income, *t* tests were conducted. Furthermore, to test whether differences existed between suicide attempters and controls with respect to marital status, homelessness status, employment status, usage of public assistance (i.e., food stamps, social security, or disability), history of previous psychological or psychiatric treatment, history of known psychological diagnoses (i.e., depression, bipolar disorder, or personality disorders), and current psychotropic medication prescriptions, phi correlation coefficients were evaluated. There were no significant differences between the groups on any of these demographic or psychological/psychiatric variables. However, trends in the data suggest that suicide attempters may be more likely than non-attempters to have a history of psychological or psychiatric treatment ( $\Phi = -.16$ , p = .06).

#### Internal Consistency and Intercorrelations among Subscales

To test the internal consistency of the Reasons for Living Inventory (RFLI; Linehan et al., 1983) within an entirely African American female sample, Cronbach's alphas were computed for all of the subscales (presented on the diagonal of Table 8). Notably, Child-Related Concerns scores were the least consistent ( $\alpha = .61$ ), but all of the subscales showed good internal consistency. These results demonstrate that this measure is reliable among African American women. Similarly, to evaluate the relationship between the subscale scores in this sample, intercorrelations among the RFLI subscales were examined (see Table 8). As expected, significant positive correlations were found between all of the RFLI subscales such that more survival and coping beliefs were associated with more responsibility to family, more child-related concerns, more fear of suicide, more fear of social disapproval, and more moral objections. These results further demonstrate that the RFLI subscales function as expected among African American women.

#### Intercorrelations among Variables

To examine the construct validity of the RFLI within an entirely African American female sample, correlations among variables were evaluated (see Table 8). RFLI total and subscale scores were significantly negatively correlated with BDI-II scores, such that more depressive affect was associated with less survival and coping beliefs, less fear of suicide, less fear of social disapproval, less moral objections, and less overall reasons for living. Similarly, SWBS total and subscale scores were significantly negatively correlated with the RFLI total and subscale scores, such that more spiritual, religious, and existential well-being was associated with more survival and coping beliefs, more fear of suicide, more fear of social disapproval, more moral objections, and more overall reasons for living. Furthermore, BDI-II scores were significantly positively correlated with SWBS total and subscale scores, such that more depressive affect was associated with less spiritual, religious, and existential well-being. Finally, with respect to suicide intent, SIS scale scores were significantly correlated with BDI-II, RWB, and SWBS scores, such that more suicide intent was associated with more depressive affect and less religious and spiritual well-being.

#### Reasons for Living and Suicidality

To test the first hypothesis that RFLI total scores would be associated with suicidality, such that suicide attempters would endorse fewer reasons for living than controls, independent samples t-tests were conducted. Suicide attempt status was the dependent variable; RFLI total scores were the independent variable. Power analyses conducted via G\*Power (Erdfelder, Faul, & Buchner, 1996) indicated that at  $\alpha = .05$  and given a medium effect size, statistical power of .92 could be obtained with the current sample size (n = 150). The data demonstrated a trend (t = -.81, p = .09) such that, contrary to expectation, suicide attempters reported more reasons for living than non-attempters (see Table 9). However, among suicide attempters, SIS scores were significantly correlated with RFLI total scores, such that more suicide intent was associated with fewer reasons for living (r = -.34, p < .01). RFLI total scores were not associated with scores on any of the LS.

To test the second hypothesis that total RFLI scores would predict suicide attempt status after controlling for SWBS and BDI-II scores, a hierarchical logistic regression was conducted.

Suicide attempt status was the dependent variable for this analysis. Both SWBS and BDI-II scores were controlled in step one of the regression, and then RFLI total scores were examined in step two. The current model did not significantly predict suicide attempt status (see Table 10). Additionally, to test the hypothesis that RFLI total scores among suicide attempters would predict LS subscale and SIS total scores above and beyond SWBS and BDI-II scores, hierarchical linear regressions were conducted. Either LS subscale or SIS total scores were the dependent variable in the following analyses. Both SWBS and BDI-II scores were controlled in step one of the hierarchical linear regressions, and then RFLI total scores were examined in step two. Given that the three most common methods of suicide attempt were drugs with sedative effects (n = 42), drugs without sedative effects (n = 14), and cutting (n = 11), only these subscale scores were entered into the hierarchical linear regressions models to predict lethality. Power analyses were conducted using G\*Power (Erdfelder et al., 1996) and revealed that at  $\alpha =$ .05 and given a medium effect size, statistical power of .86 can be obtained with the current sample size (n = 77). None of the models predicting LS subscale scores were statistically significant (see Tables 11-13). However, the model predicting SIS subscale scores revealed a trend that indicates that RFLI total scores may predict suicide intent above and beyond spiritual well-being and depressive symptomatology (see Table 14).

To test the final hypothesis that RFLI subscale scores would be associated with suicidality, such that suicide attempters would report less survival and coping, less responsibility to family, fewer child-related concerns, less fear of suicide, less fear of social disapproval, and fewer moral objections than non-attempters, a MANOVA was conducted. Suicide attempt status was the dependent variable and the RFLI subscale scores were the six independent variables. Power analyses conducted by G\*Power (Erdfelder et al., 1996) suggested that at  $\alpha = .05$  and

given a medium effect size, statistical power of .62 can be obtained with the current sample size (n = 150). The current model did not significantly predict suicide attempt status. To test the hypothesis that RFLI subscale scores among suicide attempters would be associated with LS subscale and SIS total scores, such that less survival and coping, responsibility to family, child-related concerns, fear of suicide, fear of social disapproval, and moral objectives would be associated with less lethality and less intent, bivariate correlation coefficients were evaluated. SIS total scores were significantly correlated with Survival and Coping Beliefs (r = -.37, p < .001), Responsibility to Family (r = -.27, p < .05), Fear of Suicide (r = -.25, p < .05), and Fear of Social Disapproval (r = -.28, p < .05). The relationship between Child Related Concerns and SIS total scores (r = -.23, p = .05) approached significance such that more suicide intent was associated with reporting fewer child related concerns. Notably, Moral Objections was the only RFLI subscale that was not associated with suicide intent, though the relationship between Lethality of Drug without Sedative Effects and Moral Objections demonstrated a non-significant trend (r = -.51, p = .06), such that more lethality was associated with fewer moral objections.

#### Post-Hoc Analyses

Given the potential overlap in suicide attempters and non-attempters (which included persons who could have had a past suicide attempt over a year ago) that was introduced via the intervention study screening procedure, additional analyses were conducted to determine if suicidality was associated with reasons for living with more discrete groups of attempters and non-attempters. Specifically, the 18 participants that were not assigned a lethality score (i.e., LS = -9 and -99) on any of the subscales were classified as "no suicide history controls" and the remaining 55 participants were removed from analyses. Of note, the initial findings generally remained unchanged.

To re-test the first hypothesis that RFLI total scores would be associated with suicidality, such that suicide attempters would endorse fewer reasons for living than "no suicide history controls," independent samples t-tests were conducted. Suicide attempt status (suicide attempters versus "no suicide history controls") was the dependent variable an RFLI total scores were the independent variable. Power analyses conducted via G\*Power (Erdfelder et al., 1996) indicated that at  $\alpha = .05$  and given a medium effect size, statistical power of .60 could be obtained with the current sample size (n = 95). The results indicated that suicide attempt status was not associated with RFLI total scores.

To re-test the second hypothesis that total RFLI scores would predict suicide attempt status after controlling for SWBS and BDI-II scores, hierarchical logistic regression analyses were conducted. In these analyses, the dependent variable was suicide attempt status (suicide attempters versus "no suicide history controls"). Both SWBS and BDI-II scores were controlled in step one of the regression, and then RFLI total scores were examined in step two. Again, the current model did not significantly predict suicide attempt status.

To re-test the final hypothesis that RFLI subscale scores would be associated with suicidality, such that suicide attempters would report less survival and coping, less responsibility to family, fewer child-related concerns, less fear of suicide, less fear of social disapproval, and fewer moral objectives than non-attempters, a MANOVA was conducted. Suicide attempt status (suicide attempters versus "no suicide history controls") was the dependent variable and the RFLI subscale scores were the six independent variables. Power analyses conducted by G\*Power (Erdfelder et al., 1996) suggested that at  $\alpha = .05$  and given a medium effect size, statistical power of .40 can be obtained with the current sample size (n = 95). The current model did not significantly predict suicide attempt status.

#### **CHAPTER 5**

#### DISCUSSION

The purpose of the present study was to investigate whether self-reported reasons for living is predictive of suicide attempt status, suicide intent, and lethality of suicide attempts in a sample of African American women. As such, it represents a departure from the available literature on suicide which has focused on risk factors, rather than protective factors that can be enhanced among African American women to decrease suicidality. Furthermore, although previous research has examined reasons for living in European American and mixed-ethnic group samples (Bender, 2000; Lizardi et al., 2008; 2009; Morrison & Downey, 2000; Richardson-Vejlgaard et al., 2009), the present study is the first to examine reasons for living in a sample of African American women.

The current sample represented an economically marginalized and disadvantaged subgroup of African American women. A large portion of the women in this study reported being homeless, unemployed, uninsured, having obtained a high school education or less, having a monthly income of less than 500 dollars, and a history of both legal issues and incarceration. Furthermore, the majority of these women reported being previously diagnosed with a mental disorder, prescribed psychotropic medications, and a history of psychological or psychiatric treatment and psychiatric hospitalizations. As such, the participants exemplified a group of women who are generally understudied and underrepresented in psychological research despite their relatively frequent utilization of psychological and psychiatric resources.

Before testing the three main hypotheses of the present study, preliminary analyses were conducted to evaluate the internal consistency reliability of the measures used, examine the intercorrelations between scales and among subscales, and determine if there were any significant group differences in the demographic and psychological/psychiatric variables. There were no significant demographic or psychological/psychiatric group differences between suicide attempters and controls. Though, not surprisingly, there was a non-significant trend in the data that indicated that suicide attempters were more likely than non-attempters to have a history of psychological or psychiatric treatment. Furthermore, among suicide attempters, the range of lethality of suicide attempts was limited. For all suicide attempt methods, over half of the sample presented to the emergency room or psychiatric emergency services fully conscious and alert or sleepy, and less than 12 percent were in a coma. This is consistent with the majority of available research which suggests that low lethality ratings are common among samples of female suicide attempters (e.g., Denning, Conwell, King, & Cox, 2000; Kanchan, Menon, & Menezes, 2009; Rich, Ricketts, Fowler, & Young, 1988). On the other hand, other research highlights a trend over time towards increased lethality of suicide methods among women (Rogers, 1990). Nevertheless, as a consequence of the limited variability in lethality ratings in the current sample, many of the findings that sought to compare suicide attempters as a function of the lethality of their attempt were null.

The majority of the scales and subscales used in the present study demonstrated good internal consistency. Additionally, all of the RFLI subscales were significantly positively correlated with each other, such that more reasons for living was associated with more survival and coping beliefs, responsibility to family, child-related concerns, fear of suicide, fear of social disapproval, and moral objections. These results indicate that, as expected and based on previous research with European American women and mixed-ethnic group samples (e.g.,

Linehan et al., 1983; Osman et al., 1999), the RFLI is a reliable measure for the current sample of African American women. Items associated with the Child-Related Concerns subscale of the RFLI demonstrated the least consistency. However, the subscale only contains three items with limited capacity for strong internal consistency. Furthermore, for women in the current sample with children (among whom 57 percent report that their children do not live with them) the items on this subscale (i.e., "It would not be fair to leave the children for others to take care of") may not be as relevant.

All of the scales and subscales were also related to the constructs that they should theoretically be associated with, which provides evidence for the RFLI as a valid measure of reasons for living among African American women as well. As expected and necessary for testing the hypotheses, BDI-II scores were significantly correlated with RFLI total and subscale scores, such that more depressive affect was associated with less survival and coping beliefs, responsibility to family, child-related concerns, fear of suicide, fear of social disapproval, and moral objections. These results are consistent with the results of other research conducted with African American and European American women that found that RFLI scores are associated with depressive affect (Bender, 2000) and scores of the Depression content subscale of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2: Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) (Osman et al., 1999), such that more reasons for living is associated with more depressive affect. Additionally, SWBS scores were significantly correlated with both RFLI scores and depressive affect, such that more spiritual well being was associated with less depressive affect and more survival and coping beliefs, responsibility to family, childrelated concerns, fear of suicide, fear of social disapproval, and moral objections. These results

are consistent with the results of previous literature that found that African American and European American women who report having a religious affiliation also report more moral objections to suicide (Lizardi et al., 2008). These results also support the relationship between spirituality and depression that is documented in the available literature on African American and European American women, such that more spirituality is associated with less depressive affect (Watlington & Murphy, 2006).

Generally, the research hypotheses were partially supported. The first hypothesis was that suicide attempters would endorse fewer reasons for living than non-attempters. Contrary to the hypotheses, suicide attempters reported having somewhat more reasons for living than nonattempters. These results indicate that immediately following a suicide attempt, African American women may experience an increase in reasons for living and positive affect, which is consistent with the available literature on "suicide catharsis." Suicide catharsis refers to "decreased suicidal symptoms caused by the outward expression of suicidality in the form of a suicide attempt" (Walker, Joiner, & Rudd, 2001, p. 144). Though the results are mixed, previous research has found that individuals may experience a decrease in depressive symptoms after a suicide attempt because the actual suicidal act alleviates the negative feelings experienced before the attempt (e.g., Van Praag & Plutchick, 1985). Furthermore, given the available sample of women, there was limited power to detect differences between more discrete groups of suicide attempters and non-attempters. Among attempters, greater intent to die was associated with fewer self-reported reasons for living though the lethality of the suicide attempt was not significantly correlated with reasons for living. The lack of a significant relationship between lethality of the suicide attempt and reasons for living might be attributed to the limited variability in suicide attempt lethality among suicide attempters.

The second hypothesis, that more reasons for living will be associated with decreased suicidality above and beyond spiritual well-being and depressive symptomatology, was partially supported as well. Analyses revealed that reasons for living did not predict suicide attempt status or attempt lethality after controlling for spiritual well-being and depressive affect. These results held constant after post-hoc analyses were conducted. These null findings may be attributed in part to the limited variability in lethality scores among suicide attempters, such that the majority of the sample presented to the hospital fully conscious and alert or sleepy. Furthermore, though the a priori power analyses for a medium effect size were not underpowered, the null findings suggest that the relationship between lethality and reasons for living could have been a smaller effect than previously estimated. The hierarchal linear regression predicting suicide intent, however, did reveal a non-significant trend that indicates that reasons for living may predict suicide intent above and beyond spiritual well-being and depressive symptomatology. Given the results of the a priori power analyses for a medium effect size, this non-significant trend indicates that this relationship might be statistically significant with a larger sample. Though these results were not significant, it was necessary to account for spiritual well-being because of the available literature that suggests that increased religiosity and spirituality, which may be engrained in the African American community, explains the relative low rates of suicide attempts and deaths among African Americans (Fitzpatrick et al., 2008; Griffin-Fennell & Williams, 2006; Kaslow et al., 2006; Meadows et al., 2005). Similarly, given the well-supported relationship between depressive affect and/or mood disorder diagnosis and suicidal behavior (Joe et al., 2006; Kaslow et al., 2000; Kaslow et al., 2002; Kaslow et al., 2004; Kaslow et al., 2006), it was necessary to control for depressive affect which may have influenced participants' identification of reasons to live.

The third and final hypothesis was that dimensions of reasons for living such as survival and coping, responsibility to family, child-related concerns, fear of suicide, fear of social disapproval, and moral objectives would be associated with suicidality. This hypothesis was partially supported as well. Given the limited power available to detect possible differences between the two groups for the current analysis, it was not surprising that suicide attempters did not significantly endorse more of the dimensions of reasons for living in a priori analyses. Posthoc analyses failed to find group differences as well. Many of the subscale scores were, however, associated with suicide intent and lethality among suicide attempters. Among suicide attempters, more suicide intent was significantly associated with less survival and coping beliefs, less responsibility to family, less fear of suicide, and less fear of social disapproval. Furthermore, the data revealed non-significant trends that more suicide intent was associated with fewer child related concerns. Though the available literature would suggest that moral objections to suicide should be associated with suicide intent (e.g., Malone et al., 2000; Richardson-Vejlgaard et al., 2009), moral objections was the only dimension of reasons for living that was not associated with suicide intent in this sample. However, having more moral objections to suicide was marginally associated with decreased attempt lethality.

#### Limitations and Future Directions

There were several limitations in the current study. The first limitation highlights a characteristic of the data collection procedure whereby there is time that is unaccounted for in two domains—time elapsed from the actual attempt to hospital admission and time elapsed from admission to study participation. The PI was paged by hospital staff when an African American woman presented to emergency medical or psychiatric services following a probable suicide attempt. Then, only after the woman was deemed medically stable were members of the

research team allowed to solicit her participation. Given the potential variability in the amount of time it took each participant to become stable, there is an unknown amount of time between when suicide attempters presented for treatment at either the emergency medical or psychiatric department and when they completed the research study materials. Similarly, there are most likely variations between participants in the amount of time that elapsed between actual suicide attempt and their arrival and admission to the hospital. The lack of documentation of this time period, however, hindered controlling for this variable in any analyses. Future studies should not only document the amount of time that elapses between individuals self-reported suicide attempts, but also control for that time period in all analyses.

The second limitation involves the manner in which participants were assigned to the control and suicide attempter groups in the larger intervention study assembled by Kaslow and colleagues. Per the research screening procedure, participants were assigned to the suicide attempter group if they reported attempting suicide anytime during the past year, including their suspected current attempt, and the control group if they reported never having had a suicide attempt or a suicide attempt since age 18 (but not within the past year). Consequently, groups were not discrete (i.e., a woman who attempted suicide a year and a half ago could have been assigned to the non-attempter control group), which could have muddled the results. Future studies should include additional items on screening questionnaires to ensure that control groups do not contain individuals who have ever attempted suicide at any point during their past. Additionally, future studies should also document and control for the length of time that elapses between when participants attempt suicide and when psychological and cognitive status is assessed.

Similarly, the overlap between the groups and the subsequent post-hoc analyses that were conducted revealed a third limitation: The majority of the women recruited for the non-attempter control group endorsed a past suicide attempt during their adulthood. As a result, all a priori analyses were confounded and post-hoc analyses were significantly underpowered. Future studies should be designed to include discrete groups of current attempters compared to persons who have no lifetime history of suicide attempt.

A fourth limitation of the current study was the low variability of lethality and relatively low degree of lethality of attempts among suicide attempters. Across all methods of suicide attempts, over half of the sample presented to the emergency room or psychiatric emergency services fully conscious and alert or sleepy (which corresponds to a LS score of 0 or 1), and less than 12 percent were in a coma. This low variability in lethality may have limited the capacity to find any significant relationships between lethality and both reasons for living and suicide intent. Future studies should make an effort to oversample African American individuals with higher levels of lethality in order to further explore the relationship between lethality of suicide attempts and reasons for living.

Another limitation of the current study is the restricted generalizability of the results to all African American women. The current sample represented a subset of African American women who are economically disadvantaged, have a history of educational and legal problems, and report a history of psychological or psychiatric service utilization. However, these women do not accurately characterize all African American women. Furthermore, because all data was collected at one time point, causality and the temporal relationship between reasons of living and suicidality cannot be assessed. To address this limitation, future studies should examine a more economically, educationally, and psychologically diverse sample of African American women.

Moreover, those studies should collect longitudinal data to better understand potential changes in reasons for living over time, preceding and after a suicide attempt. With respect to the prevention of suicide, researchers should also conduct longitudinal studies to examine the potential benefit of interventions that target and enhance reasons for living among African American women.

The final limitation of the current study is the possibility "suicide catharsis." Suicide catharsis refers to "decreased suicidal symptoms caused by the outward expression of suicidality in the form of a suicide attempt" (Walker, Joiner, & Rudd, 2001, p. 144). Accordingly, there might not have been any significant differences in reasons for living between suicide attempters and controls because individuals may experience a natural increase in their reasons for living after their attempt. Furthermore, the available literature suggests that suicidal individuals may experience decreased suicidality because of their increase in social support after their attempt (Walker et al., 2001). As a result, future studies should attempt to control for additional social support that was gained subsequent to the participants' suicide attempts.

#### **Conclusions and Implications**

The present study investigated the relationship between suicide attempt status and reasons for living among African American to further examine the particular protective factors that may differentially protect vulnerable African American women from engaging in suicidal behavior. The results demonstrate that the RFLI is likely a reliable and valid measure for use with female African American samples and, furthermore, that reasons for living may differentiate between African American women who have and have not attempted suicide. However, the results indicate that reported reasons for living may more effectively distinguish between female suicide attempters who endorse high suicide intent relative to those who endorse relatively low suicide intent. These findings highlight the need for more research to be conducted on this population in order to more fully understand reasons for living as a protective factor for decreased suicidality among African American women. This research should focus on the development of intervention programs to generate and enhance reasons for living in vulnerable African American women and prevent initial and repeat suicide attempts. Furthermore, after understanding the protective nature of reasons for living among African American women and how to incorporate reasons for living enhancement in intervention programs, research should focus on the potential to expand reasons for living generation as a suicide prevention strategy to women of other ethnic backgrounds. These findings also indicate that reasons for living generation and discussion should be integrated into preexisting treatment programs at in- and out-patient mental health facilities that provide services to vulnerable individuals. Moreover, graduate and post-doctoral training clinics and conference workshops should focus on training mental health practitioners to incorporate reasons for living generation into treatment plans for clients that present with symptoms of depression or expression of suicidal ideation, intent, or plans.

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## Demographic Frequencies and Percentages: Relationship Status and Children

	п	%
Single, Never Married	65	43.3
Partner, Not Cohabitating	13	8.7
Partner, Cohabitating	17	11.3
Married	9	6.0
Divorced	21	14.0
Separated	17	11.3
Widowed	5	3.3
Current Sex Partner: Male	63	42.0
Current Sex Partner: Female	12	8.0
No Children	4	2.7
One Child	25	16.7
Two Children	28	18.7
Three or More Children	63	52.5

## Demographic Frequencies and Percentages: Residence

	п	%
Homeless	77	51.3
Own Car	21	14.0
Own Place of Residence	8	5.3
Rent Place of Residence	62	41.3
One Person Lives in Home	16	10.7
Two People Live in Home	17	11.3
Three People Live in Home	24	16.0
Four or More People Live in Home	48	44.0

Demographie	c Frequencies	and Percentages:	Education,	Employment,	and Legal Histor	v
01	1	8	,	1 /	0 ,	/

	п	%
12 <sup>th</sup> Grade Education/GED or Less	113	76.4
Some College/Technical School	23	15.3
College/Technical School Graduate or More	12	8.1
Not Employed	129	86.0
Unskilled Worker (Current or Past)	32	21.3
Semiskilled Worker (Current or Past)	53	35.3
Skilled Manual Worker (Current or Past)	11	7.3
Clerical/Sales/Technical Worker (Current or Past)	22	14.7
Administrative/Small Business Worker (Current or Past)	10	6.7
Manager/Lesser Professional Worker (Current or Past)	11	7.3
Executive/Professional (Current or Past)	1	0.7
History of Legal Issues	86	57.3
History of Incarceration	89	59.3

## Demographic Frequencies and Percentages: Sources of Income

	п	%
Paid Employment	16	10.7
Partner's Income	20	13.3
Other Family Member's Income	16	10.7
Child Support	5	3.3
Public Assistance: TANF	8	5.3
Public Assistance: Food Stamps	53	35.3
Public Assistance: SS/SSI/Disability	33	22.0
\$500 or Less Monthly Household Income	61	49.2
\$500 to \$1000 Monthly Household Income	31	20.7
\$1000 to \$2000 Monthly Household Income	18	12.0
\$2000 or More Monthly Household Income	13	8.7
No Health Insurance	88	58.7
Medicaid/Medicare	49	32.7
Private Health Insurance	8	5.3

## Demographic Frequencies and Percentages: Religious Affiliation

n	%
75	50
5	3.3
5	3.3
8	5.3
3	2.0
2	1.3
23	15.3
	n 75 5 5 8 3 2 23

## Demographic Frequencies and Percentages: Psychiatric/Psychological History

	п	%
History of Psychological/Psychiatric Treatment	102	68.0
History of Psychiatric Hospitalization	81	55.1
Diagnosis of Schizophrenia	27	18.0
Diagnosis of Depression	86	57.3
Diagnosis of Bipolar Disorder	54	36.0
Diagnosis of Anxiety Disorder	35	23.3
Diagnosis of a Personality Disorder	9	6.0
Current Medications: Antipsychotic	62	41.3
Current Medications: Anticholinergics	12	8.0
Current Medications: Antidepressants	79	52.7
Current Medications: Mood Stabilizers	11	7.3
Current Medications: Anti-anxiety	18	12.0
AA/NA/CA	27	18.8
Al Anon/ACOA	11	0.1
Other Support Group	38	27.3

### Suicide Attempt Lethality by Method

Method	Frequency	Percent Fully Conscious	M(SD)
Drug with Sedative Effects	42	52.4	1.93 (1.65)
Drug without Sedative Effects	14	78.6	1.03 (1.87)
Shooting	1	100.0	0.00 (0.00)
Immolation	2	100.0	0.00 (0.00)
Drowning	1	100.0	0.00 (0.00)
Cutting	11	81.8	.82 (1.14)
Jumping	6	66.7	1.57 (3.36)
Hanging	5	60.0	1.50 (2.01)

*Note*: Scores on the Lethality Scale are as follows. 0 = Fully Conscious/Alert, 1 = Conscious/Sleepy, 2 = Lethargic, 3 = Asleep/Easily Aroused, 4 = Coma/Intact Reflux, 5 = Coma/No Pain Withdrawal, 6 = Coma/No Reflex, 7 = Coma/All Reflexes Absent, 8 = Death

Correlations and Reliability Estimates (presented on the diagonal) for Scales

Scale	1	2	3	4	5	6	7	8	9	10	11	12
1	.94											
2	.82***	.83										
3	.69***	.75***	.61									
4	.76***	.78***	.75***	.83								
5	.80***	.76***	.75***	.79***	.78							
6	.70***	.72***	.63***	.75***	.67***	.79						
7	.96***	.90***	.80***	.88***	.87***	.81***	.96					
8	42***	34***	28**	29***	42***	23**	39***	.93				
9	51***	49***	49***	42***	50***	24*	52***	.38***	.82			
10	44***	42***	51***	42***	50***	24*	47***	.25*	.61***	.89		
11	53***	50***	56***	47***	54***	31**	56***	.48***	.89***	.91***	.90	
12	31***	27**	25**	21*	21*	22**	29***	.25*	.19	.25*	.25*	.62

1 = Survival and Coping Beliefs; 2 = Responsibility to Family; 3 = Child-Related Concerns; 4 = Fear of Suicide; 5 = Fear of Social Disapproval; 6 = Moral Objections; 7 = Total Reasons for Living; 8 = Beck Depression Inventory-II; 9 = Existential Well-Being; 10 = Religious Well-Being; 11 = Total Spiritual Well-Being; 12 = Suicide Intent Scale

#### Suicide Attempters Controls (n = 73)(n = 77)Scale (Range) M(SD)M(SD)*t*-score Spiritual Well-Being Scale Total (20-120) 55.84 (16.63) 58.90 (18.85) .79 Religious Well-Being (10-60) 22.20 (10.10) 23.49 (10.56) .58 Existential Well-Being (10-60) 33.82 (9.03) 34.80 (9.68) .48 Beck Depression Inventory (0-63) 30.78 (14.38) -.66 32.37 (14.48) Suicide Intent Scale (0-30) 13.48 (4.57) 13.44 (4.81) -.05 -.81<sup>†</sup> 4.04 (1.28) Total Reasons for Living (1-6) 4.20 (1.06) Survival and Coping (1-6) -.59† 4.27 (1.09) 4.15 (1.30) Responsibility to Family (1-6) 4.10 (1.24) 3.83 (1.45) -1.23Child Related Concerns (1-6) 4.01 (1.36) 3.91 (1.41) -.45 Fear of Suicide (1-6) 4.12 (1.28) 3.96 (1.34) -.73 Fear of Social Disapproval (1-6) 4.24 (1.42) 4.17 (1.52) -.25 Moral Objections (1-6) 4.25 (1.44) 3.93 (1.61) -1.27

#### Means and Standard Deviations on Measures as a Function of Suicide Attempt Status

*Note*: Lower scores on the SWBS indicate more spiritual well-being. For the remaining scales, higher scores indicate more extreme responding in the direction of the construct being measured.

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

† p < .10

	OR	95% CI	В	SE	$\Delta \chi^2$
Intercept			.07	.22	
Block 1					$\chi^2(2, N=81) = .54$
SWBS	.98	.96-1.01	02	.02	
BDI-II	1.02	.98-1.05	.02	.02	
Block 2					$\chi^2(3, N=81) = 1.88$
RFLI	.87	.54-1.39	14	.24	

Hierarchical Logistic Regression Predicting Suicide Attempt Status

Hierarchical Linear Regression Predicting Lethality of Drugs with Sedative Effects

Lethality of Drugs with Sedative Effects	ß	t
Step 1: $R^2 = .15$ ; $F(2, 25) = 2.15$ , $p = .14$		
SWBS	43	-2.01
BDI-II	.12	.58
Step 2: $R^2$ change = .04; $F(3, 24) = 1.82, p = .17$		
SWBS	56	-2.28
BDI-II	.08	.38
RFLI Total	25	-1.06

Hierarchical Linear Regression Predicting Lethality of Drugs without Sedative Effects

Lethality of Drugs without Sedative Effects	ß	t
Step 1: $R^2 = .32$ ; $F(2, 3) = .72$ , $p = .56$		
SWBS	70	-1.18
BDI-II	.32	.53
Step 2: $R^2$ change = 4.45; $F(3, 2) = 2.52, p = .30$		
SWBS	-1.56	-2.72
BDI-II	.55	1.31
RFLI Total	-1.01	-2.11

Hierarchical Linear Regression Predicting Lethality of Cutting

Lethality of Cutting	ß	t
Step 1: $R^2 = .42$ ; $F(2, 3) = 1.07$ , $p = .45$		
SWBS	62	-1.05
BDI-II	04	06
Step 2: $R^2$ change = .37; $F(3, 2) = 2.46, p = .30$		
SWBS	1.73	1.30
BDI-II	4.71	1.83
RFLI Total	6.57	1.87

Hierarchical Linear Regression Predicting Suicide Intent

Suicide Intent	ß	t
Step 1: $R^2 = .11$ ; $F(2, 39) = 2.35$ , $p = .11$		
SWBS	.15	.85
BDI-II	.22	1.24
Step 2: $R^2$ change = .05; $F(3, 38) = 2.33, p = .09$		
SWBS	.01	.06
BDI-II	.17	.93
RFLI Total	28	-1.46

Appendix:	Grady Nia Project Screening Questionnaire
Date:	Participant Name
Interviewer:	Date of Birth: / /
Location:	Race:
	Grady #

**Interviewer**: The questions I am going to ask you are sensitive in nature, and may be hard for some people to answer. Your responses will be kept private, so please try to answer as honestly as you can.

1.	Have you been in a relationship with a partner in the <b>past year</b> ?	No	Yes
	If Yes, within the past year has a partner:		
	a) slapped, kicked, pushed, choked, or punched you?	No	Yes
	b) forced or coerced you to have sex?	No	Yes
	c) threatened you with a knife or gun to scare or hurt you?	No	Yes
	d) made you afraid that you could be physically hurt?	No	Yes
	e) repeatedly used words, yelled, or screamed in a way	No	Yes
	that frightened you, threatened you, put you down, or		
	made you feel rejected?		

- 2. In the **past year**, which describes you best pick **one** of the four choices:
  - a) I don't have any thoughts of killing myself.
  - b) I have thoughts of killing myself, but would not carry them out.
  - c) I would like to kill myself.
  - d) I would like to kill myself if I had the chance.

iiuve you.	I upt	y cui i		
a) intentionally taken pills to overdose?	No	Yes	No	Yes
b) drank a poisonous substance (bleach, antifreeze, etc.)?	No	Yes	No	Yes
c) tried to shoot yourself?	No	Yes	No	Yes
d) jumped from a high place?	No	Yes	No	Yes
e) cut yourself in order to kill yourself? (describe)				
	No	Yes	No	Yes
f) walked in front of traffic or on Marta tracks?	No	Yes	No	Yes
g) intentionally (on-purpose) tried to take your life?	No	Yes	No	Yes
h) used drugs or alcohol to kill yourself?	No	Yes	No	Yes
i) attempted to commit suicide?	No	Yes	No	Yes

Past vear

Since Age 18.

- Participant meets Prevention Project criteria if: (1) she has been in a relationship during the past year, (2) answers yes to one item from 1a-e, (3) answers affirmatively to 2b-d, and (4) does not answer yes to any items in 3.
- Participant meets Suicide Project criteria if: (1) answers yes to any of item 3 during the past year.

Remember to remind participant of support groups:

- If yes to 1, refer to domestic violence support group Tuesdays, 3pm-4pm.
- If yes to 3 or 2b-d, refer to suicide support group Mondays, 1pm-2pm.
- If yes to 1, 2 b-d and 3, refer to both support groups.

Status of Interview:

1) Screened and meets criteria for <b>Prevention</b>	
3) Screened and does not meet criteria	

\_\_2) Screened and meets criteria for Suicide\_\_4) Refused to be screened

\_\_\_\_5) Screened and refused

The Grady Nia Project works with women who have experienced abuse or violence in their relationships and who have thought about hurting themselves or ending their lives. The Grady Nia Project also works with women have attempted suicide. Each of the programs involves four (4) interviews and if you complete all four (4) interviews you will be paid \$140. Some women will be invited to join a women's group. This is a screening and not one of the 4 interviews, so you will not be paid for this.

If she meets criteria, ask her if she is willing to participate. No Yes

If **Yes**: We would like to keep in touch with you throughout the following months to keep you updated on the program.

Address:	Okay to send mail: Yes No	Okay to send mail: Yes No				
Home Telephone #:	Okay to leave message:       Yes       N         Okay to leave message:       Yes       N         Okay to page:       Yes       N	0 0				
Names and ages of children: <u>Name</u>	<u>Age</u>					
Are there other people we can contact in case we h 1) Name:	ave trouble reaching you?: Relationship:					
Address:	Okay to send mail: Yes N	0				
Home Telephone #: ( ) -	Okay to leave message: Yes N	0				
Work Telephone #: ( ) -	Okay to leave message: Yes N	0				
Pager #: ()	Okay to page: Yes N	0				
2) Name:	Relationship:					
Áddress:	Okay to send mail: Yes N	0				
Home Telephone #: ()	Okay to leave message: Yes N	lo				
Work Telephone #: (	Okay to leave message: Yes N	0				
Pager #: ( ) -	Okay to page: Yes N	0				