

**INVESTIGATING FACTORS ASSOCIATED WITH SUICIDE AND  
ANTECEDENT BEHAVIOR AMONG AFRICAN AMERICAN MALES:  
A QUEST TO PRESERVE LIFE**

A Dissertation

by

**KYREL LASHEA ROWELL**

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

**DOCTOR OF PHILOSOPHY**

May 2007

Major Subject: Health Education

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Approved by:

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**ABSTRACT**

Investigating Factors Associated with Suicide and Antecedent Behavior among African

American Males: A Quest to Preserve Life. (May 2007)

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Suicide is a multifaceted issue and its prevention requires addressing multiple contributors. Currently, it is the third leading cause of death worldwide for those ages 15-44, the eleventh leading cause of death in the United States, and the eighth leading cause of death among U. S. men. Among African American males aged 20-44, suicide is the third, fifth, and sixth leading cause of death, respectively, when categorizing the age groups as follows: 20-24, 25-34, 35-44.

Given the published data, a public health focus exists regarding suicide prevention among racial/ethnic minorities and vulnerable populations. The jail population is especially vulnerable to suicide. Few studies have focused, however, on addressing suicidal behavior among African American males, in general, nor those incarcerated. To reinforce prevention, a need exists to examine preceding behavior to suicide, specifically suicide attempts.

Therefore, the purpose of this dissertation was to investigate risk and protective factors associated with suicide and suicide attempts among African American males, including those that are incarcerated. To fulfill the purpose, two components were

executed: a systematic literature review and an empirical study. Within the empirical study, two research questions were designed to illuminate differences regarding socio-demographic, criminal, and psychosocial characteristics between Black male suicide attempters and Black male non-attempters, White male attempters, and Black female attempters. Data from the 2002 Survey of Inmates in Local Jails was used for analysis.

Results from the literature review indicated nine suicidal risk and protective factors for African American males. The empirical study isolated three suicidal protective factors (completing at least a high school or college education, drug trafficking) and two risk factors (depression and mental disorders) that differentiated African American male suicide attempters from non-attempters. Preventing suicides can occur by preventing the first attempt or preventing recurrent attempts. The dissertation provides critical information to assist in accomplishing this endeavor by illuminating risk and protective factors. Suicide research requires public health attention and intervention. Moreover, a collaborative approach is necessary. Research and practice efforts must begin now to thwart the increasing rate of suicide among adult African American males.

## **DEDICATION**

I dedicate this dissertation to someone who started this Ph.D. journey with me, but received a higher calling before its completion--my grandmother, Mrs. Mimmie Rowell. Her wisdom, strength, courage, and unwavering faith propelled me and shaped me into the person that I am today. I will never forget the wonderful life lessons that she shared with me; and the marvelous example that she set before me. I am forever grateful for the investment that she made in me throughout my life. I will always love her and hope to always make her proud. 'Til we meet again.....

## ACKNOWLEDGMENTS

I would first like to acknowledge the triune God, who has certainly provided for me in unimaginable ways throughout the course of my life and certainly, throughout completion of the dissertation process. I also acknowledge my parents who are a constant source of love, support, and laughter. My siblings (Bill, Deidre, and Jewryl) have been an enormous encouragement, even when they didn't know it. I would also like to thank Kyle for his constructive criticism, as well as generous praise. My irreplaceable friends have been nothing short of amazing. To my entire network of family and friends....thanks for everything. I've been blessed abundantly by having all of you in my life. To Nyah and A'Marie...thanks for being my inspiration. Greater works shall you do.....

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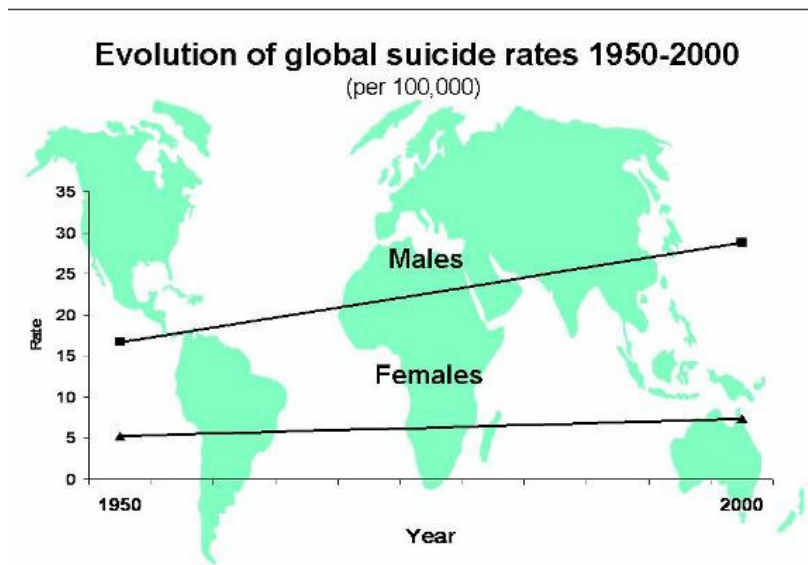
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## CHAPTER I

### INTRODUCTION

Suicide, defined as “death from self-inflicted injury where there is evidence that the decedent intended to kill himself/herself,” is a complex public health problem, requiring the investigation of multiple factors (Pearson, Stanley, King, & Fisher, 2001). The occurrence of suicide has been deemed a global health issue. The World Health Organization [WHO] has noted the increasing trend in suicide among males and females (Figure 1) and is subsequently emphasizing the importance of suicide prevention (WHO, 2006a).



**Figure 1. Evolution 1950-2000 of Global Suicide Rates (per 100,000)**

The United States is not exempt from these increases, noting a similar demographic suicide trend among males. African American males, particularly, are increasingly

---

This dissertation follows the style of *Suicide and Life-Threatening Behavior*.

experiencing suicide as a cause of mortality (National Center for Health Statistics [NCHS], 2004). According to Shaffer, Gould, and Hicks (1994), if the current trend persists, the suicide rates among African Americans will rival that of Caucasians (as cited in Wingate et al., 2005).

Given the critical nature of suicide in various populations, in 1999, the Surgeon General's *Call to Action to Prevent Suicide* (1999), recommended the advancement of the science of suicide prevention through assessment of risk and protective factors. Subsequently, The National Strategy for Suicide Prevention (2001a), developed by the United States Department of Health and Human Services [HHS], listed the need for research on suicide and suicide prevention as one of its eleven goals. Additionally, in 2004, Knox, Conwell, and Caine asked a provocative question: "If we consider suicide to be a public health issue, what are we doing to prevent it?" In accordance with national goals and in attempts to answer the question posed by Knox and colleagues, a viable first step is research that focuses on antecedents of suicide. Currently, the precipitating factors among African Americans are "poorly understood" (Castle, Duberstein, Meldrum, Conner, & Yeates, 2004) and little consensus reportedly exists regarding the factors associated with suicide among African American males. Therefore, the author conducted a systematic literature review (Chapter II).

According to the WHO (2006b), investigating suicide attempts is a viable step in suicide prevention. Within the content of this dissertation, a more specific concentration is placed on incarcerated African American males with a history of suicide attempts.

The relevance of suicide and suicide attempts regarding prisoners is not a new phenomenon. Early theorists, such as Emile Durkheim, postulated a heightened risk of suicide among those that are over-regulated (such as prisoners) (Pope, 1976). While this type (fatalistic) occupied the least commentary by Durkheim (compared to the other three—*anomie*, *egoistic*, *altruistic*), this is the type that many researchers feel is most relevant to understanding suicide among oppressed ethnic groups, such as African Americans (Gary, Yarandi, & Scruggs, 2003; Poussaint & Alexander, 2000). Given the theoretical predilection of African Americans and prisoners to suicide, it seems important to investigate this phenomenon. Not only is the theoretical link important, we must note that (1) Jails provide an environment where pre-existing issues may exacerbated, thus increasing the propensity towards suicide (Kupers, 1999), (2) suicide attempts are generally associated with an increased likelihood of completions and have been specifically implicated as a risk factor for jail suicide completion, (3) African American males are disproportionately represented in the penal system, including jails, and (4) little research has focused on factors related to incarcerated African American suicide attempters nor gender and racial differences.

While it is noted that males, in general, attempt suicide less than females, addressing attempters presents a unique opportunity for prevention. Therefore, in Chapter III a quantitative study is conducted to investigate factors germane to incarcerated African American males with a history of suicide attempts.

This dissertation will use the journal article format. It consists of four chapters. Chapter I serves as the introduction for this research. Chapters II and III are two articles

written for publication: (1) a systematic literature review of suicide among African American adult males and (2) a quantitative article regarding incarcerated African American suicide attempters--as previously described. The purpose of the systematic literature review is to delineate suicide risk and protective factors among the population of focus. The review, conducted via the Garrard matrix method, focuses on peer-reviewed articles that can be located via electronic databases and reference lists. Findings from this study will provide insight into the known suicidal risk and protective factors, identify gaps in the existing body of literature, and make recommendations for future research areas. The quantitative article focuses on risk and protective factors for incarcerated African American males with a history of suicide attempts. Intra-racial gender comparisons are made (with Black female attempters) and inter-racial comparisons are made (with White male attempters).

Little research in this field exists, therefore the contribution of these two articles should add significantly to the body of literature. Chapter IV provides conclusions and recommendations for further study.

## CHAPTER II

### SYSTEMATIC LITERATURE REVIEW

#### **Overview**

##### *Introduction*

The suicide prevalence rate among African American men continues to be lower than Caucasian men, yet an increasing rate of suicide completions among African American men is evident. If the current upward trend persists, the suicide rates among African American men will rival that of Caucasian men. Central to suicide prevention in African American men is an increased examination and understanding of risk and protective factors. Therefore, the purpose of this study was to systematically and critically review the existing literature regarding factors associated with completed suicide among African American adult men.

##### *Methods*

Using the Garrard matrix method, two hundred sixty-six (266) potential articles were identified through the search of fourteen electronic databases and numerous reference lists. The author also devised quality assessment criteria to evaluate the studies' merit and credibility.

##### *Results*

After applying inclusion and exclusion criteria, nine empirical studies specifying suicide risk and protective factors were identified. Within these nine studies, nine overarching factors were identified as associated with suicide among African American adult men. The majority of factors identified were risk factors, with education and

economic structure most frequently listed. Age was the only protective factor identified. The quality assessment indicated that published studies were quantitative, with the majority referencing Durkheim's theory on suicide, utilizing national data, and employing regression analyses.

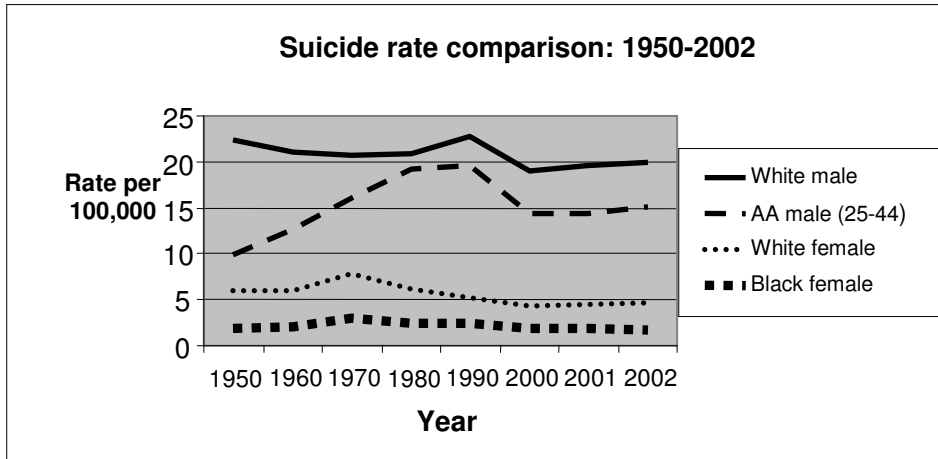
### *Discussion*

Results indicate that little research exists particularly regarding suicide protective factors among African American adult men. Additionally, methodological quality enhancement may be warranted. Specific areas for future research are provided.



## **Introduction**

Defined as the act of killing oneself intentionally (Guralnik, 1986), suicide is the eleventh leading cause of death among all Americans, but the sixth cause of death for African Americans aged 25-44, and the third leading cause of death for African American men aged 15-24 (NCHS, 2004). Although suicide rates among African Americans continue to be substantially lower than among Whites in the United States, an increase in suicide completions has been evident in recent years, especially among men [Centers for Disease Control and Prevention [CDC], 2001; NCHS, 2004). Figure 2 depicts suicide trends from 1950-2002 specifically among African American men between the ages of 25-44. In 2000, suicides were recoded from ICD-9 to ICD-10 coding, which changed the way that they were reported. However, the trend from 2000 (when coding changed) through 2002, indicates an increasing trend of suicide among this population, especially those 25-44. Data derived from the National Center for Health Statistics (2004).



**FIGURE 2: Suicide Rate Comparison: 1950-2002**

As also depicted in Figure 2, among African Americans, male suicide rates (particularly ages 25-44) consistently exceed female suicide rates. Specifically, on average, the rate of African American men that complete suicide exceeds the rate of African American women by a factor of six, whereas nationally men complete suicide four times more than women (Kochanek, Murphy, Anderson, & Scott, 2004). Perhaps because suicide rates remain lower among U.S. Blacks as compared to Whites, incremental increases have gone relatively unnoticed and under-researched. Furthermore, suicides among Blacks are often misclassified as homicides, which may contribute to a deflation of published statistics (as cited in Anglin, Gabriel, & Kaslow, 2005) and thus, a lack of attention to this issue.

Although several factors have been identified as risk and protective factors for suicide (CDC, National Center for Injury Prevention and Control, 2006) the majority of research, to date, has focused on Caucasian Americans. Factors that may be specific to African Americans have yet to be adequately reported in the literature. The presence of suicide as a leading cause of mortality for African American adult men, coupled with its increasing rates is cause for concern. Therefore, the purpose of this literature review is to systematically and critically analyze the available evidence regarding risk and protective factors associated with suicide among African American adult men. Suicide is largely preventable issue (HHS, 2001a) and better understanding the factors associated with suicide in this sub-population carries implications for prevention efforts, including program development and implementation.

## **Methods**

### *Study Selection*

To fulfill the purpose of this literature review, three primary methods of selecting articles were used. The first employed a database search. Searches were performed using Cambridge Scientific Abstracts. Within Cambridge Scientific Abstracts, fourteen databases including Criminology SAGE, Education SAGE, ERIC, Health Sciences SAGE, MEDLINE, NTIS, Political Science SAGE, PsycARTICLES, Psychology SAGE, PsycINFO, Social Services Abstracts, Sociological Abstracts, Sociology SAGE, and Urban Studies & Planning SAGE were utilized to search for keywords (in the following order) with the Boolean connector, “and”: suicide, African American or Black, men or male. All studies through November 2006 were eligible for review. Based on this particular method, 266 potential journal articles were identified.

Studies were further analyzed to gauge their compliance with inclusion and exclusion criteria. Studies were included if they were: (1) Peer-reviewed, journal publications, (2) specific to Black adult men (ages 18 and older); however, articles that included women and other races/ethnicities were considered if results for Black men could be directly extracted, (3) empirical studies (either qualitative, quantitative, or both), (4) focused on suicide as an outcome variable, (5) performed in the United States, and (6) printed in the English language. Studies were excluded if they met one or more of the following criteria: (1) Non-empirical, (2) suicide completion was not the dependent/outcome variable or the main focus. For example, many studies emphasized

suicide attempts, suicidal behavior, parasuicides, suicidality, and suicide ideology as outcomes. Articles dealing with assisted suicide—(euthanasia) were also excluded, (3) age-specific results could not be extracted or the age was not within the specified range, (4) results could not be extracted for Black men, and (5) did not occur in the United States. After applying the inclusion and exclusion criteria, the first tier yielded five (5) articles.

The second tier of research consisted of another search, using the aforementioned databases, but modifying the keywords. The keywords, “factors, suicide, and African American or Black” were used as the primary search terms. One (1) new study was introduced that met inclusion and exclusion criteria.

Thirdly, reference lists from reviewed articles were perused for potential studies; three (3) additional articles were identified through this process. Therefore, the final N was nine (9) studies, ranging from 1974-2004. A matrix depicting study components was developed using the Garrard matrix method (Garrard, 1999).

#### *Methodological Quality Assessment*

A systematic literature review requires a precise and methodical manner of not only summarizing the studies, but assessing the quality therein. Therefore, quality criteria, developed by the author, were assigned to further assess the articles’ methodological quality (see Table 1). The inclusion of a quality assessment provides an overview of studies’ rankings on key features of sound research. Previous systematic literature reviews have also employed assessments of methodological criteria (Meert et al., 2002; Goodson, Buhi, & Dunsmore, 2006).

This systematic literature review particularly gauged the following aspects of the included studies: (1) the application of theory, (2) the type of research paradigm employed (qualitative, quantitative, or both), (3) the source of data (local, state, or national), and (4) the method of data analysis. These four criteria were selected because they are revered as critical components of quality research. Theoretical frameworks can be used to explain behavior and also understand behavior change (Glanz, Lewis, & Rimer, 1997). Perhaps most importantly, theory provides a record of the process utilized to conduct the research and helps facilitate replication of the process, should others desire to implement a similar one. Thus, using theory advances the field of research. Quantitative and qualitative methodologies are of tremendous utility when implemented correctly; however, both also have limitations. Thus they were awarded the same point value. A mixed methods approach was given two points, which is the sum of the qualitative and quantitative points. Data collected at a national level is generally more generalizable than data collected at the state and local levels. Therefore, research that utilized national samples was provided the most points in the data source category (3 points), followed by state (2 points), and local (1 point). Finally, the points for data analysis increased with the robustness of the analysis method chosen. The total number of quality points that could be received ranged from 3-10 (see Table 1). All analyses (descriptive in nature) were performed using Microsoft Excel.

**TABLE 1: Quality Assessment Tool**

<b>Study Characteristic/Criteria</b>	<b>Point Specification</b>
Theoretical Framework	No: 0 Yes: 1
Research Paradigm	Qualitative: 1 Quantitative: 1 Mixed-methods: 2
Data source	City/county: 1 State: 2 National: 3
Data analysis method	Descriptives/frequencies: 1 Correlations/univariate: 2 Multiple/logistic regression: 3 HLM, SEM, etc: 4
	<b>Point range: 3-10</b>

## **Results**

### *Risk and Protective Factors*

Findings indicated nine overarching factors associated with suicide among adult African American men. The factors include: education, substance abuse, economic structure, marital status, age, interaction with the police, levels of violence, disease status, and geographical region. Among these nine, education and economic structure were found to be associated with suicide in African American adult men most frequently.

Two of the nine studies (22.2%) determined an association between educational attainment and suicide. Within these studies, educational attainment was shown to be both positively and negatively related to suicide and dependent upon the age of African American men (Fernquist, 2001; Fernquist, 2004). Among 25-44 year olds, those with a college education were at an increased risk of suicide. However, the relationship was

inverse among those 55-64. In particular, those that attain a college education have lower suicide rates (Fernquist, 2004) compared to the other age categories--thus perhaps indicating a protective effect of age. Economic structure was implicated in three studies (33.3%). Specifically, the association between economic opportunity and suicide was inverse (Almgren, Guest, Immerwahr, & Spittel, 1998). Therefore, less economic opportunity (or greater economic strain), corresponds to a heightened risk of suicide. Additionally, Hamermesh (1974) reported a positive relationship between income and Black male suicide rates. A follow-up to the aforementioned study found that dependence on public assistance, as a measure of economic strain, was a suicide risk factor (Stewart, 1980). Specifically, as dependence on public assistance increased, so did the risk for suicide completion.

Substance abuse (specifically cocaine use), geographical residence, trouble with the police, age, level of violence, marital status (specifically widowhood), and disease status were also found to be associated with suicide. Whereas a directional relationship was not sought regarding drug abuse (Garlow, 2002), an inverse relationship was found between the percentage of Blacks dwelling in a geographical area and the nonwhite suicide rate (Davis, 1979). Trouble with the police was positively associated with suicide. Simply stated, more negative contact with the police was associated with high suicide rates. Age, however, displayed a positive association (Fernquist, 2004). Age also seemed to mediate the effects of other variables, such as educational attainment and trouble with the police, and may be construed as a protective factor in those instances (Fernquist, 2001; Fernquist, 2004). Level of violence displayed a positive association

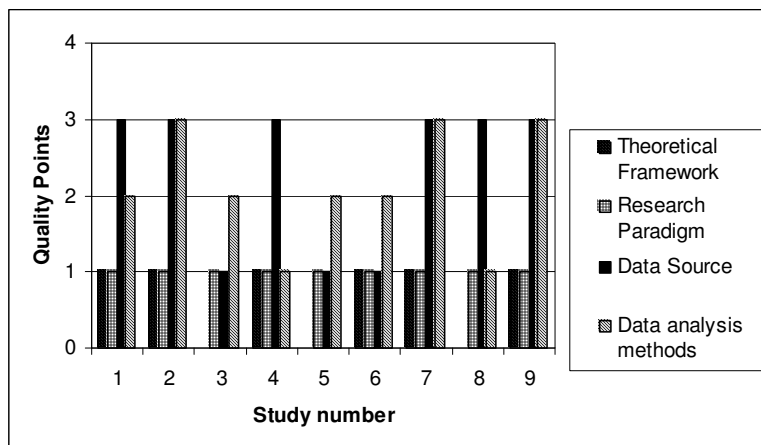


with suicide rates. Specifically, the data utilized was collected during a time of political unrest, symbolized by riots and guerilla warfare (Stewart, 1980). Therefore, as the number of violent events increased, so did the suicide rate among Black men. Marital status, specifically widowhood, was also found to be associated with suicide (Luoma, 2002). Being widowed, particularly, was associated with a nine time increased risk of suicide (Luoma, 2002). Disease status, specifically HIV positive sero-positive status, was also moderately associated with an increased risk of suicide (Marzuk et al., 1997).

#### *Methodological Quality Assessment*

Approximately half of the studies utilized theory (55.6%). The under girding theory was fairly consistent amongst the studies, with the majority of the studies using Durkheim's theory as the basis for their research (Fernquist, 2001; Fernquist, 2004; Stewart, 1980), sometimes integrating Durkheim's theory with additional, more recent theory (Fernquist, 2004). One hundred percent (100%) of the studies were quantitative. The studies analyzed data from a variety of sources at the city, county, and national levels. Specifically, three out of the nine studies (33.3%) analyzed city or county level data (Almgren et al., 1998; Garlow, 2002; Marzuk et al., 1997). The remaining six studies (66.7%) analyzed national data. Data was extracted from birth and death certificates, the U.S. Census, and autopsies. The methods of statistical analysis varied, with regression being the predominate form of statistical analysis. Approximately 33% of the studies used some form of regression, ranging from ordinary least squares regression to logistic regression (Fernquist, 2004; Hamermesh, 1974; Stewart, 1980). Forty-four (44%) of the studies used correlational methods (Fernquist, 2001; Almgren et

al., 1998; Garlow, 2002; Marzuk et al., 1997), with the remaining 22% employing descriptive methods (frequencies, etc.). No studies used statistical analyses methods such as structural equation modeling. The mean of this sample of studies was 6.11 (SD=1.7), with a range of 4-8. The points attributed to each study (categorized by criteria) are displayed in Figure 3.



#### **Study Key**

Study 1: Fernquist (2001)

Study 2: Fernquist (2004)

Study 3: Garlow (2002)

Study 4: Luoma & Pearson (2002)

Study 9: Hamermesh (1974)

Study 5: Marzuk et al. (1997)

Study 6: Almgren et al. (1998)

Study 7: Stewart (1980)

Study 8: Davis (1979)

**Figure 3. Study Rankings on Quality Assessment Criteria**

## **Discussion**

### *Risk and Protective Factors*

The purpose of this literature review was to systematically and critically analyze the available evidence regarding risk and protective factors associated with suicide among African American adult men. Although nine factors were identified, overall, the literature on factors associated with suicide among African American adult men is rather sparse (as evident by nine studies in approximately 20 years). The great paucity in the

literature needs to be filled—especially considering the escalating rate of suicide among African American adult men. This study revealed that the majority of available literature focuses on suicide risk factors. Within the multitude of associated risk factors, little consensus existed among the factors. A miniscule number of studies have investigated protective factors, which is interesting considering the lower rate of suicide among African Americans. This enhances the challenge of prevention efforts.

Although articles have been published regarding suicide among African Americans, few have focused specifically on African American adult men, and even fewer are empirical studies. Many available articles are theoretical or conceptual pieces (Stewart, 1980; Washington & McCarley, 1998), and one literature review was located (Joe & Kaplan, 2001). While it is acknowledged that Joe & Kaplan (2001) provided some insight on suicide among African Americans, in general, and African American men, in particular, the current systematic review differs in 5 important ways: (1) it focuses strictly on factors for African American adult men and not African Americans, in general, (2) it only includes empirical studies, (3) it focuses only on suicide completion, (4) it provides a quality assessment of the limited amount of available literature, and (5) it contains more recent studies (33.3% of the studies used in this literature review were published after the Joe & Kaplan (2001) article).

Current risk factors for suicide include: previous suicide attempt; history of mental disorders (particularly depression) or alcohol and substance abuse; family history of suicide or child maltreatment; feelings of hopelessness; impulsive or aggressive tendencies, barriers to accessing mental health treatment, loss (relational, social, work,

or financial), physical illness, easy access to lethal methods, unwillingness to seek help because of the associated stigma; cultural and religious beliefs, local epidemics of suicide, and isolation (CDC, National Center for Injury Prevention and Control, 2006). While three of these factors (physical illness, substance abuse, financial loss) may be considered consistent with this review, the remaining factors were not listed.

However, many of the factors listed within the current review are congruent with the factors revealed in one of the most expansive studies of African American suicide (Willis, Coombs, Drentea, & Cockerham, 2003). Specifically, education, substance abuse, economic structure, marital status (although singlehood, not widowed), and geographical region were found to be significantly associated with suicide. The similarities in factors can perhaps be attributed to the overwhelmingly male (approximately 87%) composition of Willis et al.'s study's sample. Although economic structure was identified as a factor associated with suicide, other factors besides economic strain must also influence the relationship (Stack, 1998). This is due to the following rationale--if the relationship was direct and consistently inverse, African Americans (with higher unemployment rates, lower median incomes, etc.) should have higher rates of suicide compared to Whites (Stack, 1998). In the absence of a consensus, more research need occur to understand this anomaly. Several other studies identified contributory factors congruent with those in the current review (e.g. income equality, disadvantage), yet the age range included adolescents, therefore causing them to be eliminated from this review (Burr, Hartman, & Matteson, 1999; Kubrin, Wadsworth, & DePietro, 2006).

Although we were able to gain information about risk factors, less is known about protective factors for African American adult men. Currently, general population protective factors include effective clinical care; easy access to clinical interventions; social support; skills (problem-solving, conflict resolution, nonviolent handling of disputes); cultural and religious beliefs (CDC, National Center for Injury Prevention and Control, 2006). There are studies that highlight protective factors among African American women who attempt suicide (Nisbet, 1996), but this systematic literature reveals that many of these factors have not been examined for African American adult men that have completed suicide.

#### *Areas for Future Research*

Based on the findings from this study, the following are suggested as areas for future research:

- **More research investigating risk and protective factors.** A miniscule number of studies regarding suicide among African Americans exists; and researchers lament that suicide is "poorly understood" in this sub-population (Castle et al., 2004). The current review echoes these sentiments by demonstrating that there is a scarcity of research concerning suicide risk and protective factors among African American adult males. In addition to the litany of general population suicide risk and protective factors (CDC, National Center for Injury Prevention and Control, 2006), emerging research suggests that being an immigrant, versus a native born Black person in America, may exert a protective effect (Singh & Miller, 2004). Further investigation is required to prevent researchers and

practitioners from prematurely and perhaps, erroneously applying aforementioned factors to this sub-population.

- **Additional studies empirically investigating socio-cultural forces.** The influence of racism can be characterized as a socio-cultural factor that has been under-investigated, empirically, in suicide completions. Racism is identified as the "missing variable" that can impact psychological functioning, as well as socioeconomic status, etc. that may result in the differences witnessed in certain health indicators (Smith, Neaton, Wentworth, Stamler, & Stamler, 1998). Although studies are emerging concerning racism and suicide attempts (Rowell & Rivers, 2006), additional research is needed regarding suicide completions.
- **More qualitative research.** One hundred percent (100%) of the studies were quantitative. While quantitative research has its merits, researchers may want to also explore qualitative methods, such as case studies. This method was used with the wife of a deceased White male who committed suicide (Kewman and Tate, 1998). The wife was able to provide invaluable information concerning her husband's behavior prior to his suicide. Methodologically, however, it may be more difficult to ascertain a participant pool for qualitative studies in the African American community--which has historically neglected and stigmatized mental health (HHS, 2001b).
- **Utilization of diverse theory.** Hendin (1978) specifically stated that: "it has been evident for several decades that we need a truly psychosocial approach, not an amalgam of Freud and Durkheim, but one that examines the psychodynamics

of suicide of differing groups” (p.117). However, the majority of studies after publication of this statement have primarily employed Durkheim's theory.

Durkheim undoubtedly laid the foundation in this particular research arena, but additional theory may provide further insight into suicide among African American adult men.

- **Employment of more robust analyses.** Multilevel modeling, such as structural equation modeling and hierarchical linear modeling, could contribute to an explanatory or predictive framework regarding suicide among African American men. Hierarchical linear modeling will allow testing at various levels, including the individual, county, and national level, for example. These methods will allow researchers to build upon prior work and test some of the factors that have been shown to be empirically associated with suicide among African American adult men.

### **Limitations**

Despite efforts to ensure thoroughness of this review, this literature review possesses several limitations. The review only included those factors associated with completed suicide, which inherently requires that the sample be deceased. However, it is acknowledged that suicide attempts, suicide ideation, etc. could be critical to the prevention of suicides. These were beyond the scope of this investigation. It is further acknowledged that there is a body of literature which deals with overall mental health and other mental health issues, such as depression, as outcomes. However, this particular literature review sought to delineate those factors that are directly associated with

suicide, as an outcome. Although this review is rather thorough, additional databases or perhaps journals that are not indexed may have provided additional articles.

Undoubtedly, additional criteria could have been included to assess the methodological quality of the studies. Additionally, inter-rater reliability was not established which may have strengthened the coding of factors.



## CHAPTER III

### QUANTITATIVE STUDY

#### **Overview**

##### *Introduction*

Suicide is the eleventh leading cause of death in the United States general population, but the second leading cause of death among jail inmates. Currently, the jail inmate suicide rate triples the rate among state and federal prisoners. Prior suicide attempts are a primary suicide risk factor, therefore efforts to understand those with a history of attempts is critical. Although jail populations are among the most vulnerable to suicide, there have been limited studies regarding jail inmates who have previously attempted suicide. Even fewer studies focus on African American males, who disproportionately populate the penal system, or racial and gender differences. Considering the aforementioned, this study poses the research questions: (1) What are the socio-demographic and/or criminal characteristics (if any) that differentiate incarcerated Black males with a history of suicide attempts from Black male non-attempters, White male attempters, and Black female attempters? and (2) What socio-demographic, criminal, and/or psychosocial factors predict attempt status among African American males?

##### *Methods*

Data from the 2002 Survey of Inmates in Local Jails was utilized to address the research question. Data analysis methods included descriptive statistics, exploratory factor analysis, and logistic regression.

### *Results*

Descriptive statistics indicate that Black male suicide attempters differ from Black male non-attempters, White male attempters, and Black female attempters on multiple characteristics, such as growing up with both parents. Additionally, findings from the logistic regression model indicates depression and mental illness as discriminating factors between Black males with a history of suicide attempts and Black male non-attempters.

### *Discussion*

There are idiosyncratic differences between groups that must be addressed. A better understanding of racial and gender differences will assist in tailoring prevention efforts. For example, data indicates that targeted efforts for mental health services among African American males are essential.

## **Introduction**

Suicide is a critical health issue. The study of this issue among African Americans has been largely neglected by researchers, presumably because the suicide prevalence among this group has historically been, and is currently, lower than Whites (NCHS, 2004). However, the suicide rate among particular age groups of African Americans has increased in recent years. In particular, from 1980-1996, the suicide rate for African American males ages 15-19 experienced a 105% increase (CDC, 2001). More recent increases are evident among males 25-44 (NCHS, 2004). While the suicide rate of African American males has increased in the aforementioned sub-groups, rates among African American females have been on the decline (NCHS, 2004). This upsurge in suicide among African American males has caught the attention of popular media (Chappell, 2006) yet scholars have released little empirical findings to provide additional insight regarding this phenomenon.

Several suicide risk factors have been identified for the general population. One of the primary risk factors for completed suicide is a prior suicide attempt (Moscicki, 2001). In the absence of national data on attempts (National Institute of Mental Health [NIMH], 2006; Moscicki, 2001), we must rely on research from various scholars to approximate the relationship between completions and attempts. Previous suicide attempts are associated with a 3 to 30 times increase in the likelihood of future death by suicide (HHS, 1999). This is a conservative estimate, with Maris, Berman, Maltzberger, and Yufit (1991) reporting a hundred fold increase of risk (as cited in Charles, Abram, McClelland, & Teplin, 2003) among those with a history of attempts. Currently, there

are a reported 8-25 attempts per completed suicide (NIMH, 2003). Suicide attempts are defined in multiple ways, but one of the most frequently used definitions is that of O'Carroll et al. (1996), which states that attempted suicide is "a potentially self-injurious action with a non-fatal outcome for which there is evidence (either explicit or implicit), that the person intended at some (nonzero) level to kill himself/herself. A suicide attempt may or may not result in injuries." Investigating those who have made unsuccessful suicide attempts is central to reducing suicide risk (WHO, 2006b). Although general population risk factors for suicide attempts among adults have been reported and include cocaine use, separation/divorce, depression, and alcohol abuse (NIMH, 2003), factors specific to African Americans, especially males, possess sparse empirical support.

#### *Suicide Attempts and African Americans*

Several risk factors for African American suicide attempts have been identified within a limited number of studies. Factors include diminished family relationships, life hassles, psychological distress (including depression), and aggression (Compton, Thompson, & Kaslow, 2005; Kaslow et al., 2004; Kaslow et al., 2005). Additionally, suicide acceptability and religious well-being are listed as factors that differentiate African American attempters from non-attempters (Anglin, Gabriel, & Kaslow, 2005). Religious well-being is negatively associated with attempt status, whereas suicide acceptability is positively associated. In other words, those that feel "a sense of personal and spiritual purpose" are less likely to attempt suicide; while those that believe suicide to be an acceptable behavior are at an increased likelihood of attempting suicide. Social support has also been listed as a protective factor (Kaslow et al., 2005). Although these

empirical findings reflect a modest genesis to investigating factors related to attempts, the need for more studies in this arena is apparent.

*African American Males vs. Females*

The "gender paradox" asserts that although females attempt suicide more, males have higher rates of suicide completion (Lewinsohn, Rohde, Seeley, & Baldwin, 2001). This trend is also evident in African Americans. The prevalence rate for lifetime suicide attempts among African Americans ranges from 2.3 to 5.3, with the rate among men consistently lower than the rate for women (as cited in Kaslow et al., 2005; Ialongo et al. 2002; Joe, Baser, Breeden, Neighbors, & Jackson, 2006; Juon & Ensminger, 1997). However, African American males complete suicide at a rate six times higher than African American females (Kochanek et al., 2004). Although African American females attempt suicide more, attempts are not to be ignored among males.

Several sources deem sex differences investigation among African American attempters in its infantile stages and meriting further research (Juon & Ensminger, 1997; Kaslow, 2004). Specifically, few gender comparative studies exist, thus generating a minimal amount of knowledge regarding how risk and protective factors differ between African American males and females. Within the recent body of research focusing on African American suicide attempters, the author has been able to locate only two studies which indicate factors that distinguish male from female attempters--substance abuse, schizophrenia, intoxication, clinical depression, and psychosis [Frierson & Lippmann, 1990 (as cited in Joe & Kaplan, 2001); Kaslow et al., 2004]. Additionally, the social support of family and friends has been identified as a protective factor against suicide

attempts for African American females (Nisbet, 1996), but not in a comparative context to males.

*African American Male Suicide Attempters vs. White Male Suicide Attempters*

There are few studies that compare Whites and Blacks (Juon & Ensminger, 1997), despite studies beginning over three decades ago. Efforts to understand differences between Black and White attempters began as early as 1973, but were plagued by small sample sizes (especially among Black males) and rare division of suicide attempts versus suicide ideation, thus limiting applicability (Bush, 1978; Pederson, Awad, & Kindler, 1973). Roy (2003) delineated three significant factors that differentiated Black and White attempters. Specifically, African American attempters reported less childhood emotional neglect, less family history of suicide, and fewer legal problems. Subsequent studies revealed dissension regarding whether factors associated with suicide among Whites exert a similar influence in Blacks. Some authors hypothesized similar causality for Black and White suicidal behavior (Spaights & Simpson, 1986; Stack, 1996); however, little empirical evidence is available to confidently support or refute this assertion.

While little is known about racial differences in suicide attempts, even less research has been dedicated to delineating factors specific to Black male attempters. Kirk (1979) represents one of the first and few to address socio-cultural differences in Black male suicide attempters and non-attempters. He specifically investigated Black consciousness, group cohesiveness, and depression as factors associated with suicide attempts. Black consciousness (e.g. understanding one's identity as it pertains to being

Black) was the only factor found to be statistically significant, and was negatively related to suicide attempts. According to Range et al. (1999), the literature is saturated with articles using psychological constructs to explain suicidal behavior; however, the comparison between various racial and ethnic groups is lacking. This study aims to contribute to filling the research gaps previously outlined, but within a unique and often overlooked population---jails.

### *Suicide and Jails*

Although suicide is the eleventh leading cause of death in the United States general population, it is the second leading cause of death among jail inmates (Mumola, 2005), second only to natural causes. In fact, the rate of suicide among jail inmates triples the rate among state prisoners, and is nine times higher than in the general population (Kupers, 1999; Mumola, 2005). Although the ages of those in jails overlap with the general population ages of those with elevated suicide rates, rates in jail are still excessive. Over the last 20 years, jail suicide rates have generally declined, although fluctuations have occurred over the past three years (Mumola, 2005). Despite the decrease in jail suicide, the rate is still cause for concern. Incarceration, in and of itself, is considered a risk factor for suicide, with inmates at considerable risk for suicide completion (Koehler, 2003; NIMH, 2003).

Jails are locally operated and often represent a transient population (those on the way to prison or awaiting trial) or those that are serving relatively short sentences; whereas prisons are regulated by state and federal governments and usually reserved for those with a felony offense (CDC, 2006). Similar to jails, natural causes are the leading

cause of death in prisons; however, the second leading cause of death in prisons is AIDS, followed by suicide (Mumola, 2005). Farmer, Felthous, and Holzer (1996) postulated four reasons that the suicide rates may be disproportionately high in jails compared to other penal facilities as follows: (1) the ephemeral nature of jails contributes to a higher proportion of inmates at risk at any given time, (2) the increased likelihood that jails represent one's first experience with the criminal justice system, (3) an increased likelihood that the arrestee will be intoxicated, and (4) a possibility that jail suicide prevention programs are less effective. Higher jail suicide rates are also often attributed to concentration high-risk groups within these institutions (such as the mentally ill), however, Haycock (1991) established that even after statistically adjusting for some of these factors, the jail suicide rate far outweighs the general population rates.

#### *Suicide Attempts and Jails*

Not only have attempts been associated with suicide completion in the general population, they have also been implicated in jail and prison suicides (Beigal & Russell, 1972; Farmer, Felthous, & Holzer, 1996; He, Felthous, Holzer, Nathan & Veasey, 2001). In jails, approximately 21% to 50% of jail inmates that completed suicide had previously attempted suicide (Farmer, Felthous, & Holzer, 1996; Goss, Peterson, Smith, Kalb, & Brodey, 2002). Yet, studies that solely focus on inmates with a history of suicide attempts are sparse. More specifically, studies that focus on African American prisoners, a sub-population that is disproportionately represented in jails, are lacking. African Americans comprise 12.9% of the United States population (McKinnon & Bennett, 2005), but 40% of the jail inmates population (James, 2004). According to Harrison &



Beck (2005), African Americans are approximately five times more likely to be in jails compared to Whites. Furthermore, current projections are that newborn African American males have more than a one in four chance of becoming incarcerated at some point in their lives (United States Department of Justice [DOJ], 2006a). Given that the penal system is a place where pre-existing issues have the tendency to become exacerbated, the jail population steadily increasing (Harrison & Beck, 2005), and African Americans are disproportionately represented, an investigation regarding African American male suicide attempters need ensue.

#### *Purpose of Study*

As such, the purpose of this study is to explore factors associated with male, African American jail inmates who have a history of suicide attempts. Therefore, the following research questions are examined: (1) What are the socio-demographic and/or criminal characteristics (if any) that differentiate incarcerated Black males with a history of suicide attempts from Black male non-attempters, White male attempters, and Black female attempters? and (2) What socio-demographic, criminal, and/or psychosocial factors predict attempt status among African American males? Given the paucity of studies in this arena (especially the lack of racial and gender differentiation), this study is primarily exploratory and very necessary.

## **Methods**

### *Data Collection*

The 2002 Survey of Inmates in Local Jails (DOJ, 2006b) was utilized to address the aforementioned research question. This data, originally collected by the US Census Bureau, are collected every five to six years. This particular iteration was collected from January 2002-April 2002, with public release of the data occurring in 2006. The data were extracted from over 3,300 jails and contained data on approximately 7,000 inmates. This survey, with an 84% response rate, provided information on a litany of factors related to prisoners (over 2,400 variables), including whether they have ever attempted suicide.

The design called for stratified two-stage selection. The stages involved methodical selection of the jails and random selection of the inmates, respectively. The methodical selection of the jails included dividing the jails into six strata, based on the magnitude of the juvenile, male, and female populations. For more information on the stratification process, see the Inter-university Consortium for Political and Social Research (ICPSR) website.

The goal was for facilities with large populations of male, female, or juvenile inmates to have a higher probability of selection than those with a small population. Eliminating jails that refused, were closed, or currently had no inmates, resulted in a final sample of four hundred seventeen ( $n = 417$ ). Interviewers then visited the selected jails to make the random selection of inmates (DOJ, 2006b).

Data were collected via computer-assisted personal interviews (CAPI), with interviews lasting for approximately one hour. This technique specifies that the computer provide the interviewer with initial and follow-up interview questions. Prior to the interview, participants were made aware of their rights, including the premise of voluntary participation, in writing and verbally. Approval for this research and analysis of secondary data was granted by the Texas A & M University Institutional Review Board.

#### *Data Cleaning*

The entire data set included 6,982 respondents, ranging in age from 13-82 years old. After deletion of those under 18, the sample size was 6,601. Further data cleaning was performed by addressing missing data. Missing data was handled by deleting cases with any missing values on the following key variables-- age, marital status, education, employment, and suicide attempt status (whether they had attempted or not). This resulted in an adult sample size of 6,070.

#### *Data Analysis Procedures*

Data was analyzed using SPSS 14.0 and Stata 9.2. Stata 9.2 (in its standard version) allows for the inclusion of weights and standard errors that are necessary for data analysis with complex sampling techniques, such as the one utilized with the 2002 Survey of Inmates in Local Jails.

Frequencies and descriptive statistics were calculated for selected socio-demographic, suicidal, and criminal characteristics. These calculations were specific to the comparison groups listed in the research questions (n = 2,061). Socio-demographic

variables included age, marital status, whether the individual was employed the month before incarceration, pre-incarceration monthly income, highest educational level achieved, whether the individual was homeless within the year prior to incarceration, whether the individual had ever received public assistance, and the person with whom the individual lived while growing up. Suicidal characteristics included whether the individual was asked about prior suicidal behavior upon intake to the jail and the individual's number of previous suicide attempts. Selected criminal characteristics included current offense category, whether individuals had a prior offense or prior sentence, and the number of prior sentences.

Exploratory factor analysis via principal component analysis, with Varimax rotation, was performed as a measure of construct validity. There are several methods for determining the appropriate number of factors to extract (DiIorio, 2005; Thompson, 2005). Two of these methods were undertaken, including using eigenvalues greater than 1 and scree tests. Of particular interest were variables related to depression and mental illness. According to Haycock (1991), there is a dearth of information concerning psychological data in studies that include suicide attempters--thus, the inclusion of depression and mental illness in the analysis. Only factors that loaded at 0.50 and higher were retained.

Logistic regression models were also estimated, with ever attempted suicide as the binary dependent variable (coded 0 for never attempted, 1 for ever attempted). Logistic regression provides an opportunity to explain or predict the influence of several independent variables on one dichotomous dependent variable (Huck, 2004). A larger

model including the sample of all adults [n=6070] was estimated first to view variables of interest and any potential interactions. This allowed for reduction of the model and the retention of indicators (covariates) that were significant. A combination of socio-demographic and psychosocial variables was used as covariates. Socio-demographic variables included age (continuous variable), education (categorical--see frequency table), marital status (categorical--see frequency table), public assistance (coded 0 for never receiving public assistance, 1 for ever receiving public assistance), and income (categorical--see frequency table). Psychosocial variables included substance abuse (coded as 0 for never used and 1 for ever used), physical or sexual abuse (coded as 0 for no and 1 for yes), trouble with the police (as measured by type of offense-categorical), and psychosocial constructs gleaned from the factor analysis (See factor analysis results). In estimating the logistic regression models, any cases with missing data on variables of interest were automatically deleted (not figured into the analysis). After estimating the larger model, logistic regression was employed to specifically explore differences between African American male attempters and non-attempters.

## **Results**

### *Descriptive Statistics and Frequencies (Socio-demographic, Suicidal, and Criminal Characteristics)*

The comparison groups of interest (n = 2,061) included 490 suicide attempters. By race/ethnicity and gender, suicide attempters were as follows: 46.3% White male (n = 227), 25.1% Black males (n = 123), and 28.6% Black females (n = 140). Socio-

demographic data is listed in Table 2. Data for suicidal and criminal characteristics are listed in Table 3.

*Black Male Attempters vs. Black Male Non-Attempters*

African American male attempters (n=123) and male non-attempters (n=1571) were approximately 32 years old. However, African American male attempters differed from African American male non-attempters on all other socio-demographic variables, including marital status, employment, income, educational level, homeless status, whether they had ever received public assistance, and who they lived with while growing up. In general, a greater percentage of attempters were separated, unemployed the month prior to incarceration, homeless within the year prior to incarceration, and less educated. Approximately 12.6% of non-attempters had attended college, whereas 5.8% of attempters attended college. More non-attempters made at least \$1000 per month (36% vs. 23.3%) and lived with both parents while growing up (32% vs. 22.4%).

Differences were also noted on other selected characteristics, such as criminal offense, criminal history, and the number of prior sentences. Attempters were more likely to be charged with larceny, while non-attempters were more likely to have drug-related charges. In general, non-attempters had fewer previous sentences. Approximately 78% of non-attempters had two or less previous sentences, while 65% of attempters had two or less previous sentences. A larger percentage of attempters had eleven or more prior sentences compared to non-attempters (7.6% vs. 1.8%). Approximately the same proportion of attempters and non-attempters were asked about previous suicidal behavior at intake (82% and 78% respectively).

*Black Male Attempters vs. White Male Attempters*

When viewing racial differences among male suicide attempters, the number of White male attempters almost doubles (exactly 85% higher) that of African American male attempters (n = 227 vs. n=123). Socio-demographic differences were noted regarding marital status, employment, income, educational level, ever receiving public assistance, and the individual with whom they resided while growing up. A higher frequency of White males was divorced (22.3% vs. 8.3%), while more Blacks had never been married (64.5% vs. 46.8%). More Black males were unemployed (46.6% vs. 29.2%) and made less money prior to incarceration. Specifically, 40.6% of White males made \$1000 or more per month pre-incarceration, while only 23.3% of Black males made this amount. Approximately 41% of Black males completed high school or a greater level of education, while 61% of Whites achieved this level. Fewer Black attempters lived with both parents (22.4% vs. 44.2%). Overall, within both races, those that lived with one parent resided with their mother. However, more White attempters lived with their fathers (8.5% vs. 0.4%) compared to Blacks. More Black attempters also lived with other relatives (23% vs. 9%) compared to Whites.

Black and White male attempters did not markedly differ on suicidal characteristics. Approximately 70% of Black and White male attempters had attempted either once or twice. However, differences regarding criminal characteristics are apparent. Black attempters were charged with homicide, robbery, and drug-related crimes, while White male attempters were incarcerated on sexual offense charges, driving while intoxicated (DWI), or other public ordinance violations.

*Black Male Attempters vs. Black Female Attempters*

On average, Black female attempters (n = 140) were slightly older than Black male attempters (n=123) (34.3 years old vs. 32.12 years old). For the most part, African American male and female attempters were similar on socio-demographic variables, with the exception of employment and educational level. Male attempters were more likely to be employed than female attempters prior to incarceration (53.4% vs. 39.8%). However, a greater percentage of female attempters had attended or graduated college (12.3% vs. 5.8%).

Other selected characteristics demonstrate differences in criminal offense classification and criminal history, but not suicidal characteristics. Approximately 63% of female attempters had attempted either once or twice, and 69% of males had attempted once or twice. More males were retained on burglary (12.6% vs. 0%) and other violent crimes (3.7% vs. 0.8%), while females were more likely to be in jail on fraud charges (12.8% vs. 1.6%).



Table 2. Demographic characteristics of comparison groups (in percentages)

	Black male non- attempters n=1571	Black male attempters n=123	White male attempters n= 227	Black female attempters n= 140
<b>Demographic variables</b>				
Age	31.69 ( $\sigma=10.57$ )	32.12 ( $\sigma=9.72$ )	32.51 ( $\sigma=10.07$ )	34.3 ( $\sigma=11.29$ )
<b>Marital status</b>				
Married	12.9	14.2	14.7	15.2
Widowed	1	1.4	2.1	6
Divorced	10	8.3	22.3	13.6
Separated	4.9	11.6	14.1	8.8
Never Married	71.2	64.5	46.8	56.4
<b>Employment</b>				
Yes	72.1	53.4	70.8	39.8
No	27.9	46.6	29.2	60.2
<b>Income</b>				
None	20.8	21.3	17	24
\$1-\$299	11.3	15.5	13.3	16.4
\$300-599	15.9	24.5	12.4	25.6
\$600-999	16	15.4	16.8	9.3
\$1000-1999	22	15.2	22.6	14.8
\$2000 or more	14	8.1	18	9.9
<b>Educational Level</b>				
8 <sup>th</sup> or less	7.9	19.9	10.6	13.2
Some high school	36.7	39	28.9	35.6
High school diploma or GED	42.9	35.3	47.5	38.9
Some college	10	5	10.5	9.7
College graduate	2.6	0.8	2.6	2.6
<b>Homeless</b>				
Yes	12.4	30.3	24.3	31
No	87.6	69.7	75.7	69
<b>Ever received public assistance</b>				
Yes	50.3	62.9	32.3	59.5
No	49.7	37.1	67.7	40.5
<b>Person lived with while growing up</b>				
Both parents	32	22.4	44.2	30.3
Mother only	50	49.5	33.5	43.3
Father only	2.3	0.4	8.5	2
Other relatives	14.1	23	9	18.6
Other non-relatives	1.6	4.7	4.9	5.9

Table 3. Selected suicidal and criminal characteristics of comparison groups (in percentages)

<b>Characteristic</b>	Black male non- attempters n=1571	Black male attempters n=123	White male attempters n= 227	Black female attempters n= 140
<b>Asked about suicide</b>				
Yes	77.7	81.7	78.4	76.3
No	21.8	16.7	20.5	22.9
Don't know	0.4	1.5	1.1	0.8
<b>Number of lifetime suicide attempts</b>				
One	-----	40.7	44.2	37.4
Two	-----	28.3	28.2	24.9
Three	-----	11.8	9.8	17.5
Four	-----	7.6	3.1	5.7
Five or more	-----	11.6	14.6	14.5
<b>Criminal offense classification</b>				
Homicide	2.6	4.6	1.7	4.3
Rape	0.2	0	2.2	0
Other sexual	1.7	3	9	1.7
Robbery	7.2	8.7	4.7	4.8
Assault	11.6	13.6	10.9	12.6
Other violent	2.2	3.7	2.9	0.8
Burglary	6.4	12.6	11	0
Larceny	6.4	12.5	10.2	12.8
Fraud	4.1	1.6	3.8	12.8
Other prop	5.8	5.3	5.2	5.8
Possess drugs	12.8	8.4	4.6	14.8
Traffick drugs	17.9	7.4	5.8	7.8
Other drug	1.3	0.8	0.9	3.6
Weapons	2.5	0.7	2.3	0.8
DWI	2.1	0.7	6.6	0.3
Other pub ordinance	13.9	12.1	17.6	16.5
Other	0.9	4.1	0.4	0.6
<b>Criminal history</b>				
No offense	0.8	2.2	0.4	0
No previous sentence	37.4	27.7	26.2	41
Prior sentence	61.8	70.1	73.4	59
<b>Number of prior incarceration sentences</b>				
None	40.7	36.2	31.2	44
One	25	20.2	21.9	24.4
Two	12	8.7	8.4	9.5
Three to five (3-5)	15.2	18.3	20.7	10.7
Six to ten (6-10)	5.4	9.1	11.3	5.9
Eleven or more (11+)	1.8	7.6	6.5	5.5

### *Exploratory Factor Analysis*

Based on the survey instrument, it was initially hypothesized that there would be two major factors, one for depression and one for diagnosed mental disorders. However, the eigenvalue > 1 rule suggested 5 factors, and the scree plot indicated three factors. Three factors were retained. The Kaiser-Meyer-Olkin test of sampling adequacy was 0.897, with a statistically significant Bartlett's test of sphericity. Factor 1 was labeled General depressive symptomatology; Factor 2: Diagnosed Mental Disorders and Factor 3: Anger. The names for the scales were based on the items that loaded. For example, many of the items on the General depressive symptomatology sub-scale are similar to items on the Beck's Depression Inventory, as well as depressive symptoms listed in the *Diagnostics and Statistics Manual of Disorders, Fourth Edition (DSM-IV)* (James and Glaze, 2006). The three factor model loadings are listed in Table 4.

Internal consistency, a form of reliability, was also assessed. The extracted items for each factor were summed as a scale. The Cronbach's alpha for the ten-item general depression symptomatology subscale (values ranging from 0-10) was 0.839. For the six-item diagnosed mental disorder subscale (values ranging from 0-6), the Cronbach's alpha was 0.768. The four-item anger subscale (values ranging from 0-4) displayed a Cronbach's alpha of 0.743. Overall, data displayed good reliability.

Table 4. Exploratory Factor Analysis

	Component			Item
	1	2	3	
depressive disorder		.751		Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had a depressive disorder?
bipolar disorder		.663		Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had manic-depression, bipolar disorder or mania?
psychotic disorder		.593		Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had schizophrenia or another psychotic disorder?
posttraumatic stress		.652		Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had posttraumatic stress disorder?
anxiety disorder		.635		Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had another anxiety disorder, such as panic disorder?
Personality disorder		.660		Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had a personality disorder (such as antisocial or borderline personality disorder)?
other mental condition				Have you ever been told by a mental health professional, such as a psychiatrist or psychologist, that you had any other mental or emotional condition?
generally angrier			.735	During the last year, have you been angry more often than usual?
broke things			.676	During the last year, have you broken things on purpose, just because you were angry?
Vengeful thinking			.664	During the last year, have you thought a lot about getting back at someone you have been angry at?

Table 4 continued.

	Component			Item
	1	2	3	
more alienated	.532			During the last year, have you had difficulty feeling close to friends or family members?
Sluggish	.535			During the last year, have there been periods when you felt like you talked or moved more slowly than you usually do?
Restlessness	.553			During the last year, have there been periods when you couldn't sit still?
racing thoughts				During the last year, have there been times when your thoughts raced so fast that you had trouble keeping track of them?
Activity level change	.662			During the last year, has there been an increase or decrease in your overall activity compared to your usual level of functioning?
change in sleep	.614			During the last year, has there been a noticeable increase in the amount of time you sleep?
Appetite change				During the last year, has there been a noticeable increase or decrease in your appetite for a period of 2 or more weeks?
given up hope	.513			During the last year, have you given up hope for your life or your future?
Nightmares				During the last year, have you had negative or frightening thoughts or dreams that make it difficult to sleep?
read others minds				During the last year, have you felt that others people could read your mind?
change in sex drive	.589			During the last year, have you been more or less interested in sex than you used to be?
no one cares	.649			During the last year, have there been periods when you felt like no one cares about you?
feeling empty	.569			During the last year, have there been periods when you felt numb or empty inside?
lost temper			.754	During the last year, have you lost your temper easily, or had a short fuse more often than usual?
others controlling thoughts	.605			During the last year, have other people been able to control your brain or thoughts?

*Logistic Regression (Demographic Variables Predicting Attempts among African American Males)*

The model for the entire sample (n=5343) is shown in Table 5. The following variables were statistically significant predictors of suicide attempts for the sample: age, male, black, single, college, drug use, physical or sexual abuse, depressive symptomatology, diagnosed mental disorders, and drug trafficking offense. The model was statistically significant [F(16, 5327)= 45.26, p<0.05].

Table 5. Logistic regression (Variables predicting attempter status among sample)

	<b>b</b>	<b>SE</b>	<b>Odds ratio (e<sup>b</sup>)</b>	<b>p</b>	<b>Confidence interval</b>
<b>Age</b>	-.013739*	.0067856	.986355	0.043	(0.9733208, 0.9995637)
<b>Male</b>	-.383842***	.1146529	.681239	0.001	(0.5441074, 0.8529318)
<b>Black</b>	-.408181***	.119332	.6648589	0.001	(0.5261758, 0.8400944)
<b>Single</b>	-.3452652**	.1276018	.7080325	0.007	(0.5513327, 0.9092696)
<b>High school</b>	-.186698	.1169376	.8296943	0.110	(0.6597176, 1.043466)
<b>College</b>	-.3308365	.1698197	.7183226	0.051	(0.5149156, 1.002082)
<b>Public assistance</b>	.0542843	.1153301	1.055785	0.638	(0.8421394, 1.32363)
<b>Income</b>	-.0374279	.0309932	.9632638	0.227	(0.9064792, 1.023606)
<b>Drug use</b>	1.85347 ***	.3757308	6.38193	0.000	(3.055321, 13.33052)
<b>Abuse</b>	.7726758***	.1199542	2.165553	0.000	(1.711751, 2.739663)
<b>General depressive symptomatology</b>	.3565805***	.0774088	1.428437	0.000	(1.227314, 1.662518)
<b>Drug use x depression</b>	-.1498424	.0802644	.8608437	0.062	(0.7355084, 1.007537)
<b>Diagnosed mental disorder</b>	.8758373***	.1567677	2.400885	0.000	(1.765632, 3.264694)
<b>Drug use x mental disorder</b>	-.2971087	.1618178	.7429632	0.066	(0.5409991, 1.020324)
<b>Rape</b>	1.1282	.6312596	3.090088	0.074	(0.8964374, 10.65177)
<b>Drug trafficking</b>	-.513909**	.1795343	.5981528	0.004	(0.4206856, .8504849)

\* denotes statistical significance at p≤0.05, \*\*denotes statistical significance at p≤0.01, \*\*\* denotes statistical significance at p≤0.001

Within the entire sample, those that are younger, male, Black (compared to Hispanic or Whites), and single (compared to married, divorced, widowed, or separated) are less likely to have attempted suicide. Those that have ever used drugs, been physically or sexually abused, display more depressive symptoms, and have more mental disorder diagnoses are more likely to have attempted suicide. Specifically, after considering other independent variables, those that have ever used drugs are over six times more likely to be attempters versus those who have not used drugs. The odds of being an attempter are almost 2 times higher among those that have a diagnosed mental disorder and a history of abuse, while those that are more depressed are approximately 1.5 times more likely to be attempters (holding other variables constant). However, being male, Black, and retained on drug trafficking seems to exert a protective effect.

Table 6 depicts African American male attempters versus African American male non-attempters (n=1594). Attempt status was maintained as the binary dependent variable. Insignificant variables from the overall model were not considered for analysis in this model. Rape was also excluded because of the small number of rapists among Black attempters (resulted in exclusion of four cases). The overall model fit is statistically significant [ $F(12, 5365) = 14.14, p < 0.001$ ]. However, several variables, such as age, single, drug use, and abuse that were statistically significant predictors in the overall model were not predictors in the model with African American males.

Within educational level, high school and college were statistically significant predictors in the African American male model, but not in the entire sample model. African American males who completed high school or attended college/graduated

college were less likely to have attempted suicide, compared with those who had less than a high school education. Specifically, attending college/graduating college was associated with a 72% decreased odds of attempt, while graduating high school lessened odds by 46%. These two variables seem to exert a protective effect for African American males, along with drug trafficking. Those incarcerated for drug trafficking were approximately 70% less likely to be attempters, compared to other criminal offense categories. However, depressive symptomatology and diagnosed mental illness maintained significance in predicting attempt status among African American males. Having a diagnosed mental disorders increases the odds of attempt by 150% , while the odds of attempt increased by 62% for those who were more depressed (holding all other variables constant).

Table 6. Logistic regression (Variables predicting attempts among African American males)

	<b>b</b>	<b>SE</b>	<b>Odds ratio (e<sup>b</sup>)</b>	<b>p</b>	<b>Confidence interval</b>
<b>Age</b>	-.0017649	.013707	.9982366	0.898	(0.9717698, 1.025424)
<b>Single</b>	-.4629417	.316882	.6294293	0.144	(0.3381861, 1.171489)
<b>High school</b>	-.6140428*	.2627501	.5411586	0.019	(0.3233113, 0.9057916)
<b>College</b>	-1.288408**	.4932881	.2757094	0.009	(0.1048261, 0.7251596)
<b>Income</b>	-.0681944	.0726535	.9340789	0.348	(0.8100781, 1.077061)
<b>Drug use</b>	1.97997	1.103549	7.242527	0.073	(0.832408, 63.01501)
<b>Abuse</b>	.3137172	.3050654	1.368503	0.304	(0.7525148, 2.488721)
<b>General depressive symptomatology</b>	.4864437**	.164817	1.626521	0.003	(1.177432, 2.2469)
<b>Drug use x depression</b>	-.2413131	.1727726	.7855956	0.163	(0.5598886, 1.102292)
<b>Diagnosed mental disorder</b>	.9264541***	.230331	2.525538	0.000	(1.607873, 3.966945)
<b>Drug use x mental disorder</b>	-.274634	.2463277	.7598502	0.265	(0.4688201, 1.231543)
<b>Drug trafficking</b>	-1.223605**	.4241781	.2941679	0.004	(0.1280716, 0.6756747)

\* denotes statistical significance at  $p \leq 0.05$ , \*\*denotes statistical significance at  $p \leq 0.01$ , \*\*\* denotes statistical significance at  $p \leq 0.001$



## **Limitations**

This study involves several potential limitations, such as self-report and recall bias. This study represented an analysis of secondary data, therefore, any procedural or data entry errors are unknown to the author. Additionally, the variables available for analysis were already determined. No new variables could be introduced. This may constitute a limitation because the literature cites potential correlates of suicide attempts among African Americans, such as racism, religion, spirituality, suicide acceptability, acculturation, and social support (Anglin, Gabriel, & Kaslow, 2005; Griffin-Fennell & Williams, 2006; Nisbet, 1996; Stack, 1998; Walker, Lester, & Joe, 2006) which could not be tested.

Among African American male attempters and non-attempters, the chasm in sample size may affect statistical power. However, the benefit of this research may outweigh the limitations in that it represents few studies of its kind. Particularly, this cohort of incarcerated African American suicide attempters is among the largest, if not, the largest to be investigated in the literature. Previous study samples have ranged from 61 to 189 (Charles, 2003; Ialongo, 2002; Joe et al., 2006; Kaslow et al., 2005; Roy, 2003). Additionally, some available studies are case control, convenience samples, and localized to one geographical area (Charles, 2003; Kaslow et al., 2005). Finally, suicide is a sensitive topic and some inmates may not have wanted to disclose whether they had attempted or not. Therefore, there is a possibility of underreporting, especially given the stigma associated with mental health in the Black community.

## **Discussion**

The purpose of this study was to examine two research questions: (1) what are the socio-demographic and/or criminal characteristics (if any) that differentiate incarcerated Black males with a history of suicide attempts from Black male non-attempters, White male attempters, and Black female attempters? and (2) What socio-demographic, criminal, and/or psychosocial factors predict attempt status among African American males? This represents one of the first studies to embark upon this line of research inquiry.

### *Frequencies*

Within the entire sample, there was a higher percentage of African American female attempters ( $\approx 22\%$ ) compared to White male attempters ( $\approx 16\%$ ) and African American male attempters ( $\approx 7\%$ ). This is consistent with the general population trend, which repeatedly demonstrates more female than male attempts (Ialongo et al., 2002; Joe, et al., 2006; Juon & Ensminger, 1997; Lewinsohn et al., 2001; NIMH, 2003). However, a national data source to assess suicide attempts across races/ethnicities is still needed to determine the true magnitude of attempts across groups. This is also a jail population, which presents a potential confounder. Particularly, approximately 64% of those in jails have the highest prevalence rates for those with mental health issues (James & Glaze, 2006).

Across the board, a much smaller percentage of African American inmates were raised in two parent households, with male attempters, followed by female attempters constituting the lowest percentages. Although a higher percentage of White attempters

lived with both parents while growing up, they still comprise a greater percentage of attempters. Similar to previous studies, this may implicate some endogenous protective mechanism(s) within the Black community. This demographic group, despite potential sources of oppression (such as broken family structures, economic inequality, etc.), maintains a lower suicide completion rate and among this sample, a lower frequency of attempts. Previous sources have outlined social support from family and friends as a protective factor for females (Nisbet, 1996), yet similar factors for African American males are unknown. Further investigation (especially regarding males) is warranted.

Of additional note for the overall comparison groups is the proportion that completed college. The percentages for all inmates are drastically low, compared to the national averages. In the general population, 24.4% complete at least a bachelor's degree, 27.4% complete some college or associate's degree, and 28.6% complete high school. The 0.8% college graduate level for African American male attempters is of concern.

#### *Black Male Attempters vs. White Male Attempters*

Results indicated differences on several socio-demographic and criminal characteristics including marital status, employment, income, educational level, ever receiving public assistance, the individual with whom they resided while growing up, and current offense classifications. The socio-demographic differences witnessed among incarcerated suicide attempters in many ways mirror the current general population trends. However, there are also differences.

According to 2000 U. S. Census data, 40% of African American males have never been married (McKinnon & Bennett, 2005). However, in our sample 65% have

never been married. Perhaps this is due to the recurrent offenses within our sample-- approximately 65% had been previously incarcerated. Therefore, their availability for marriage may have been limited. A greater percentage of White male attempters were divorced compared to Black male attempters (22.3% vs. 8.3%). Divorce has been cited as a risk factor for suicide attempts among the general population (NIMH, 2003). Therefore, divorced White males may require additional attention for prevention programming efforts and mental health services. Nationally, approximately 8.6% of Black men are divorced (McKinnon & Bennett, 2005). This is highly consistent with our sample (8.3%). In 2000, the national rate of female headed households was 11.8%. However, among White and Black male attempters, the rate of female headed households was 33.5% and 49.5% respectively. Not only do these rates exceed the national average, but the rates among Black attempters, exceeds the national average for Blacks by almost 20%. This may speak to the need for further investigation of the relationship between family structure and adverse health outcomes, such as suicide attempts.

The criminal classification racial differences parallel those of the general local jail inmate population. In the general local jail population, a higher frequency of Blacks versus Whites (26.9% vs. 21.8%) is incarcerated on murder charges, robbery (7.7% vs. 2.8%), and drug offenses (30.6 vs. 18.5%) (James, 2004). More Whites are incarcerated on sexual assault charges (4% vs. 1.7%), driving while intoxicated (10.9% vs. 1.8%), and other public ordinances (3.5% vs. 2.3%) (James, 2004). The trends in our sample of attempters are consistent with published statistics.

*Black Male Attempters vs. Black Female Attempters*

In this sample, the number of Black male attempters and female attempters are relatively close (n =123 and n = 140, respectively). This is in contrast to published studies, which indicate a female attempt rate that usually exceeds males one and a half to three times (as cited in Kaslow et al., 2005). In the general population, Black females have a higher median age (32 years old) than Black males (28.7 years old) (McKinnon & Bennett, 2005). Therefore the slight age difference in our sample was fairly consistent with national data.

Black male attempters and Black female attempters have the highest unemployment rates of the sample's four comparison groups. In the general population, Black males and females exceed the national average in unemployment. In the general population, more Black males are employed (61%) than females (59%). A similar intra-racial gender trend is noted within this sample, although the sample's gap is wider (approximately 14% difference). A greater percentage of female attempters had attended or graduated college (12.3% vs. 5.8%), which is consistent with national data.

More Black females were incarcerated on larceny and fraud charges, which is consistent with the general female jail population (James, 2004). According to national data, approximately 10% of women are incarcerated on larceny charges compared to 6.5% of men. Additionally, 14% of women are jailed on fraud charges, whereas 3.7% of men are in jail on identical charges (James, 2004).

*Black Male Attempters vs. Black Male Non-Attempters*

Multiple socio-demographic differences between Black male attempters and Black male non-attempters were noted in the presentation of frequencies. Although Black males are often grouped together, this analysis demonstrated that there are marked differences between the two groups. Differences were noted on separation, unemployment, homelessness, and lower educational level. Separation has been indicated in general population completed suicides (NIMH, 2003). Therefore, the fact that Black male attempters have a much higher separation rate is comprehensible. The percentage of separated Black male non-attempters closely mirrors Black men in the general population (4.9% vs. 4.4% respectively) (McKinnon & Bennett, 2005). Homelessness is a statistically significant demographic characteristic (via chi-square analysis) that has differentiated African American attempters from non-attempters (Anglin, Gabriel, and Kaslow, 2005). However, more research is needed regarding its predictive or explanatory power. More attempters were incarcerated based on larceny charges. This is incongruent with the most frequent charges for African Americans. However, non-attempters criminal classification (mostly drug-related charges) is consistent with jail data (James, 2004). Further research is needed to explain this difference.

*Logistic Regression*

The logistic regression model provided predictive insight into factors associated with suicide attempt among African American males. Predictors shown to be significant in the model for the entire sample differed from significant predictors to differentiate

African American male attempters from African American male non-attempters. The model estimated to predict attempts among African American males resulted in four overarching significant factors: depression, diagnosed mental disorders, drug trafficking, and educational level (high school and college). This marks one of the first studies to implicate protective factors for African American males. Risk factors included depression and mental disorders.

#### *Depression & Mental Disorders*

The statistical significance of depression and mental illness was expected, considering (1) their impact in the general population and (2) that the sample possibly made their attempts in the general population (considering the investigation of lifetime suicide attempts and the transient nature of jails). Although depression and mental disorders are often associated with suicide attempts in the general population, they have been under-investigated among African American males, and lacking empirical support. This study illustrates that depression and mental illness are viable concerns among incarcerated African American males. However, the literature is sparse with information concerning mental illness and depression among this group. A literature review by Watkins, Green, Rivers, and Rowell (2006) revealed seventeen studies (spanning two decades) that focused on depression among African American men. Ten factors were derived from these studies. The current study's findings clearly indicate the need to continue studying depression among African American males.

There is a severe stigma within the African American community regarding mental health, which may inhibit the progress of research, treatment, and ultimately,

prevention. Although African Americans are affected by mental illness, they are less likely to utilize mental health services (HHS, 2001b). For African Americans that do decide to seek services, complications have arisen concerning the quality of care received. Because this population of attempters is housed in the jail system, and many of those that complete suicide in jails have a history of suicide attempts, understanding these factors are key in preventing recurrent attempts or completions during incarceration. Although some jails currently have screening procedures to identify those with a history of suicidal behavior, there are still implications regarding mental health services for the criminal justice system.

*Depression and Mental Disorders: Implications for the Criminal Justice System*

According to Kupers (1999), mental health services in correctional facilities are plagued by high turn over and inadequate staffing. Despite these problems, the need for quality mental health services is evident. A core facet of maintaining quality is culturally sensitive mental health service delivery. The Dellums Commission (2006) also suggests several reforms concerning the effective handling of inmates with mental health issues. Among their recommendations is treatment-centered sentencing, especially considering that many are present in jail on non-violent crimes. For example, the majority of female and male attempters in our sample were in detention based on drug-related crimes or larceny (for females). Treatment-focused sentencing may play an even larger role when looking at those with a history of attempts. The Dellums Commission suggests that “locales should establish mental health courts with judges and/or court staff trained to make determinations on mental illness and when appropriate assign treatment” (p.10).



Additionally, they recommend a partnership between state governments, private insurers, the criminal justice system, and communities to enhance mental health service delivery and perhaps reduce recidivism.

It is important to remember that the majority jail inmates will return to neighborhoods at some point in time. These men and women need to be able to receive needed services, not only while incarcerated, but upon release. Yet, research shows that there is grave fragmentation in care and a lack of service continuity—reinforcing the need for collaboration across disciplines and sectors (Freudenberg, 2004)

#### *Drug Trafficking & Educational Level*

Drug trafficking and educational level (especially high school and college) exerted a protective effect. Those charged with drug trafficking were less likely to be suicide attempters. Therefore, it seems that being incarcerated for drug trafficking versus other crimes is a protective factor. Perhaps this is a result of an untested interaction effect between black males and their offenses, considering that the majority of African American males do not attempt and are incarcerated on drug-related charges. However, it is also highly plausible that those who are charged with drug related crimes are indeed less likely to have attempted suicide. Future research may assist in making a more definitive determination.

Educational level (especially high school and college) also served as a protective factor. Those with more education were less likely to be suicide attempters. Although education has not been extensively studied regarding suicide attempts, the systematic literature review in Chapter II found that educational level is a factor in completed

suicide among adult African American males. While education displayed a negative effect regarding suicide attempt status, it was found to be both positively and negatively related to suicide completions.

*Drug Trafficking and Educational Level: Implications for Society*

Data demonstrates that a great majority of African American males are incarcerated because of drug-related charges (James, 2004) and the number of African American males in jails continues to increase. While suicide risk may remain lower among this group, compared to those incarcerated on other charges, this continuous influx calls for grave concern regarding other health issues. In particular, researchers are concerned about the exacerbation of health disparities within African American communities (Iguchi, Bell, Ramchand, & Fain, 2005). This potential exacerbation of health disparities is primarily the result of societal constraints (such as health benefits) post-release. Ultimately, the lack of service continuity and other benefits contribute to the cyclical nature of recidivism. Therefore, incarceration remains a critical health risk for African American males.

Given that educational level is a factor that is associated with suicide and suicide attempts, further research efforts may need to be geared towards educating Black males. This overlap may present a preliminary compass for directing suicide prevention and intervention strategies at multiple levels. Often, the question is asked about the best place to put limited resources. Investing in education may present a viable starting point for resource allocation because not only is educational level indicated for attempts, but completion as well.

Many may consider educational level as a non-modifiable risk factor because it is indicative of systemic, societal structures. However, according to the Dellums Report (2006), “systemic problems must be addressed with systemic solutions.” A simultaneous, multilevel approach may be necessary. This includes a combination of individual, community, and legislative efforts. The entire sample of inmates was less educated than the national average--perhaps limiting possibilities for alternate life choices. There appears to be an inextricable link between jail, education, and health. Certainly health professionals need to be involved, but collaboration must occur across disciplines to effect necessary changes.

## **Conclusion**

A particular ambivalence hangs about the suicides of prisoners. After all, a number of them are, allegedly or in reality, not very pleasant individuals. They have committed or are charged with committing acts that the larger society condemns. Their incarceration serves as a sign of social opprobrium. That they should take that opprobrium to heart, that they should add their own punishment to that meted out by social institutions, seems somehow fitting. Suicide can quietly signal that someone has acknowledged his (or, rarely, her) shameful place in the social order, that social sanctions have worked their redemptive purpose.

(Haycock, 1991, p. 5)

Although this statement is approximately 15 years old, the ambivalence and mixed moral opinions are still relevant. Regardless of one’s philosophical belief regarding suicide,

years of data indicate that suicide in jails is a severe public health issue. This study specifically adds to the limited knowledge base regarding factors germane to suicide attempts among African American males, as well as racial and gender comparisons for the aforementioned group. It has been documented that improvements regarding suicide prevention efforts need to be made--especially regarding African American males (NIMH, 2003). It is hoped that this study can serve as a catalyst for other studies to further investigate the ways in which suicide attempts, and ultimately suicides can be prevented. Additionally, early intervention to address these factors or at least how to cope with them (e.g. depression) may prevent future attempts or completions. Further research will need to be conducted to see if the factors implicated in this study can be applied to other populations. This could hold major implications for effective program planning, intervention, and evaluation.

## CHAPTER IV

### CONCLUSION AND RECOMMENDATIONS FOR FURTHER STUDY

This dissertation, entitled "Investigating factors associated with suicide and antecedent behavior: A quest to preserve life," was embarked upon to discover relevant factors associated with suicide and suicide attempts, especially among African American males. The systematic literature review (Chapter II) indicated nine overarching factors associated with suicide among adult African American males. These factors included: education, substance abuse, economic structure, marital status, age, interaction with the police, levels of violence, disease status, and geographical region. Interestingly, within nine relevant studies, the impact of suicide attempts was not examined as a factor associated with suicide completions—although literature consistently lists previous suicide attempts as a primary precursor for suicide completions and intervening with prior attempters as key to preventing suicide (Pearson et al., 2001; WHO, 2006b). This lack of information concerning attempts is a void in the literature—especially as it pertains to African American males.

Chapter III represented a genesis to filling the aforementioned gap. Within the dissertation, a more targeted focus was assumed regarding incarcerated African American males with a history of suicide attempts. The following research questions were addressed: (1) What are the socio-demographic, suicidal, and/or criminal characteristics (if any) that differentiate incarcerated Black males with a history of suicide attempts from Black male non-attempters, White male attempters, and Black

female attempters? and (2) What socio-demographic, criminal, and/or psychosocial factors predict attempt status among African American males?

Findings from Chapter III indicated three suicidal protective factors and two risk factors. Protective factors included having a high school or college education and being incarcerated on drug trafficking charges, while risk factors included depression and having a diagnosed mental disorder. This research represents one of the largest samples of African American suicide attempters, yet more research is needed regarding risk and protective factors for suicide and suicide attempts among African American males.

Areas for future research are listed below.

### **Recommendations for Further Study**

#### *Risk Factors*

After critically analyzing the existing literature, it is evident that the majority of suicidal factors listed within published research are risk factors. However, only nine total studies were eligible for inclusion in the systematic literature review, which revealed the risk factors outlined in Chapter II. This reiterates the limited body of knowledge concerning suicide among African American males and underscores the desperate need for additional research. Not only does the volume of research merit an increase, but also the robustness of the research. In particular, more advanced data analysis methods (such as structural equation modeling) and diverse research methods (specifically qualitative) are sorely lacking in the literature—which may allow for an enhanced understanding of risk factors and perhaps, the pathways by which multiple factors exert influences upon suicidal behavior.

As outlined in Chapter II, various suicidal risk factors have been identified in the general population, but few have been empirically linked to suicide among African American males. Several socio-cultural factors have been highlighted throughout this dissertation that may warrant additional investigation concerning their relevance to suicidal behavior among this sub-population, including racism and acculturation.

Additionally, depression and mental illness were identified as risk factors in suicide attempts—therefore demonstrating that depression and mental disorders are a legitimate concern among African American males. Further inquiry regarding individual level factors, such as the effects of depression and mental disorders on African American males is necessary. In addition to the factors indicated in this study, family factors, such as large family size, paternal criminality, and admission to foster care have been implicated in overall mental health problems and disorders (HHS, 2001b). The applicability of these factors to suicide and suicide attempts among African American males presents a potential line of inquiry. Paternal criminality, in particular, may be integral to preventing suicide among those that are incarcerated.

#### *Protective Factors*

As previously mentioned, the academic literature spanning three decades is deficient regarding suicidal protective factors among African American males. Within this dissertation, age was indicated as a protective factor for completed suicides, while educational attainment (at least a high school diploma) and drug trafficking were implicated as protective factors for suicide attempts. Although the suicide rates among

African American males are increasing, the rate is still lower than that of White males. Therefore, an understanding of protective factors is critical.

Based on the findings, it is paramount that completion of secondary education (at minimum) for African American males becomes a national priority. Moreover, educational level was found to be a factor common to suicide and suicide attempts among African American males--further strengthening its validity as an important factor in suicidal behavior. Drug trafficking also exerted a protective effect. Further research should be conducted to more lucidly understand this relationship. For example, perhaps those incarcerated on drug trafficking charges have higher levels of resiliency as compared to those incarcerated on other charges. This may exert some type of protective effect. However, this only represents a preliminary hypothesis. Further empirical testing has to occur to fully substantiate this relationship. Other underlying characteristics of those incarcerated on drug trafficking charges may also exist, thus perhaps accounting for the observed protective effect against suicide attempts.

The buffering effects of individual and community factors, such as spirituality, religion, familial support, and social cohesion have been associated with mental health issues and mental disorders in general (HHS, 2001b). Several of these factors have also been implicated as suicidal protective factors for African Americans overall. However, empirical evidence supporting the relationship between the aforementioned factors and suicidal behavior among African American males is lacking. The applicability of potential protective factors can only be accurately portrayed with supplemental, quality research techniques (including quantitative and qualitative methodologies).



*Development of Theoretical Underpinnings*

This dissertation may also contribute to the initiation of an appropriate theoretical framework for this sub-population. Although Durkheim's theory is often cited in suicide research (Pope, 1976), and the degree of social integration (specifically lack thereof) has applicability for prisoners, it may be of limited utility when examining suicidal behavior among African Americans. According to Kirk (1979), Durkheim disregarded race as an important social variable. However, others deem it appropriate, especially the fatalistic suicide component. This is considered relevant, not only for African Americans (as a historically oppressed group), but even more specifically, prisoners, who are overregulated (Gary, Yarandi, & Scruggs, 2003; Poussaint & Alexander, 2000). Compton, Thompson, and Kaslow (2005) incorporated the Social Cognitive Theory, specifically reciprocal determinism, and the Social Support theory to explain suicidal behavior among African Americans. Fundamentally, reciprocal determinism alludes to the person, environment, and behavior interaction (Glanz, Lewis, & Rimer, 1997). In particular, it was utilized to investigate the relationship between African Americans, suicide attempts, and their social environment, such as family functioning. The Social Support theory focused on the impact of social support on attempt status. However, no categorization according to gender was made.

Given that individual and societal level factors were implicated, an ecological framework may be appropriate (McLeroy, Bibeau, Steckler, & Glanz, 1988). According to Poussaint & Alexander (2000), "the rise in self-destructive behaviors among Blacks—unlike the high incidence of 'black crime,'—has received little in-depth examination

from the nation's policy makers." This assertion, coupled with the evident involvement of system level factors, as well as individual factors, support movement towards an ecological approach. Additionally, the ecological approach has been applied to suicide among adolescents (Ayyash-Abdo, 2002). Understanding risk and protective factors associated with attempts, within a conceptual framework, offers promise for ultimately decreasing the incidence of future suicide attempts or suicide completions. Theoretical frameworks may also ultimately assist in program development and tailoring prevention efforts. However, further research is needed to fully investigate and ultimately, understand influences related to suicidal behavior among African American males.

Suicide and suicide attempts among African American males is a bona fide issue. Not only is it an established issue, it is multifaceted in nature, and thus will require a multifaceted solution. Transdisciplinary collaborations (including health education, psychology/psychiatry, education, criminal justice system) will be needed to effectively deal with suicide and antecedent issues. Within the framework of transdisciplinary collaboration is the mandate that cultural sensitivity be maintained. There are sub-groups within the larger sub-population of African American males which may require various dimensions of cultural sensitivity. For example, those that are not incarcerated versus those that are incarcerated may operate from two different cultural orientations—although all are African American males. Researchers and practitioners must be aware of these potential issues and prepared to address them when formulating research and programmatic efforts.

At the forefront is the realization that suicidal behavior among African American males is a critical problem. Those that are incarcerated are at an elevated risk of suicide attempts and completions. Given the increasing proportion of African American males in penal facilities, suicide and antecedent behavior can no longer be ignored. These behaviors must be addressed through sound research and practice. The lives of African American males depend upon it.

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\* denotes studies that were analyzed for Chapter II systematic literature review

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