

THESIS APPROVAL FORM

SUICIDE IN THE U.S. FEDERAL PRISON SYSTEM

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ABSTRACT

This study examined the relationship between demographic traits of inmates in U.S. Federal prisons, and the commission of **suicide** from the time period 1993-97. A comparison was made to previous studies of two earlier 5-year periods. A stress adaptation model of nursing care was adopted for the purpose of providing a conceptual framework for the study, and the primary method of data collection employed was a **chart review**. Data surrounding the event of suicide was extracted from 61 inmate records, representing 100% of all suicides occurring during the five-year period of the study. Data was examined through the use of a tool used in previous research called the **psychological autopsy**. The results of the study were found to be similar to those of previous studies, and were demonstrated in an updated **inmate profile** which delineates common risk factors for suicide in this correctional setting. Results of this study confirm the effectiveness of suicide prevention programs in place within the Federal Bureau of Prisons. Recommendations for the future included the increased utilization of mid-level practitioners to identify inmates at high risk for suicide, a critical look at the physical environment in which the suicides take place, and the continuation of an on-going, systematic approach to the problem of inmate suicide in the correctional setting.

Key Words: **suicide** **chart review** **psychological autopsy** **inmate profile**

SUICIDE IN THE U.S. FEDERAL PRISON SYSTEM

A Study of High Risk Variables

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FOREWARD

This research was conducted to provide current information related to the relationship between certain demographic traits and the commission of suicide by inmates in the U.S. Federal prison system. The focus of the research was the delineation of risk factors that are predictors of suicide in this correctional environment. The significance of this research lies in providing correctional communities with current information that could be useful in training future correctional workers and preventing future incidents of suicide.

To the most important people of my life I dedicate this thesis. Without their love, encouragement and support, the attainment of a dream and the creation of this thesis would not have been possible:

To my late father, Dr. Robert E. Frickey, who instilled in all who knew him a sense of wonderment about the world and all that makes sense in it. To my mother, Dolores Joan, whose nurturing has kept me safe from the ravages of the world and the many pitfalls that awaited each new path of life. To my sister, Carla, who introduced me to a life-long profession of caring, and whose example I will remember and follow for years to come. To my beloved son, Beau, whose presence on this earth is a constant reminder that from our children we learn the most important lessons of all.

To the FBOP staff, my research committee, and members of the faculty who invested uncommon faith and trust in my abilities, I extend a most enduring gratitude. Without those special people that stood firm in the face of injustice, this day would not have come for me, and for many others to follow. The world is a better place because of them.

To my beloved Martina, whose undying love and patience from so many miles away was always with me through the most difficult endeavor of my life.

Lastly, to our God Almighty, who carried me through the depths of uncertainty and despair, and never left my side at times when I was not strong.

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Much madness is Divinest Sense -- to a discerning ey

Emily Dickinson

CHAPTER I. INTRODUCTION

Background

Mental disorders of all kinds affect 22% of the adult population over a period of one year, and severe mental disorders, including many forms of depression, affect 2.8% of this population -- about 5 million people annually in the U.S. (Lester, 1992). Mental disorders also account for approximately 25% of all Federal disability payments. As might be expected, many disturbances in mental health are found among the inmate populations of our Federal prison system. This represents an enormous cost to the Federal government, and ultimately, the taxpayer. Suicide is the ultimate manifestation of a declining ability to cope with stress. Health care providers as well as case managers and other correctional staff working closely with inmate should be the first line of defense against the high costs of mental illness and suicide in our prisons. With increased knowledge, the most appropriate interventions should be available to those whose coping mechanisms have failed.

In 1977, there were nearly 30,000 self-inflicted deaths in the United States, a rate of 11.1 per 100,000 population (National Center for Health Statistics, 1998). In the U.S. Federal prison system, where inmates are under intense supervision, the incidence of suicide is approximately the same as that of the general population. Some believe that in an environment that is designed to protect as well as incarcerate, suicide should be largely preventable. Aside from a moral perspective, the occurrence of suicide represents unnecessary risk and liability for the U.S. Federal government.

During a 24 month period from 1995-97, the author of this thesis was directly

involved in the aftermath of two deaths by suicide while working as a nurse officer for the U.S. Federal Bureau of Prisons. These events left an indelible impression on all of the staff involved, and the occurrence of suicide became a matter of particular concern to all members of the health services division. At that time it became obvious that a vigilant approach to monitoring inmates in the correctional setting could be instrumental in decreasing incidents of this kind, though an extensive study might be required to determine specifically what could be done. The chance to conduct this research presented itself when the author received a selection to participate in a graduate nursing program at the Uniformed Services University of the Health Sciences (USUHS) in Bethesda, MD.

Purpose of the Study

The purpose of the research was to examine the relationship between certain demographic traits and the commission of suicide by inmates in U.S. Federal prisons. The focus of the research was the delineation of risk factors that are predictors of suicide in this correctional environment. The significance of this research lies in providing correctional communities with current information about suicide in the correctional environment that could be useful in training future correctional workers and preventing future incidents of suicide.

The research reported in this thesis re-examined all documented suicides in the U.S. Federal correctional facilities as reported in the previous studies, and added to these files data from the years 1992 to 1997. An examination was made of whether current data remains consistent with previous findings and whether there were changing trends in demographics of recent inmates.

Research Questions

The research questions guiding this study were:

1. Which predisposing factors have been identified in previous research as characteristic of prisoners likely to complete suicide in any correctional environment ?
2. Which of these factors are also characteristic of the specific population of Federal offenders targeted in this study ?
3. Which of the shared characteristics are different than those found in the White and Schimmel studies of 1987 and 1992 ?
4. Do the results of this study indicate that suicide prevention programs in use by the U.S. Federal Bureau of Prisons are effective and /or satisfactory ?
5. Do the data indicate that any changes are appropriate in methods of assessment, management, or focused intervention with regard to specific inmate populations ?
6. Are there any implications for enhancement of future program policy review or training efforts within the correctional system of the U. S. Federal Bureau of Prisons, in dealing with the problem of suicide by inmates ?

Theoretical Framework

Models serve many purposes. They can help clarify relationships, generate hypotheses, and give perspective to an abstract idea or concept. They also can provide a structure for critical thinking, in observing and interpreting what has been seen (Pearson, Vaughn, & Fitzgerald, 1996). Conceptual nursing models are abstract logical frames of reference that guide the development of a study and enable the researcher to link the findings to nursing's established body of knowledge.

The conceptual framework guiding this study was a stress adaptation model of care, originally developed by Gail Stuart, a nurse educator and certified specialist in psychiatric nursing, at the Medical University of South Carolina. Her theory integrates the biological, psychological and sociocultural aspects of patient care into one unified framework for practice. It recognizes that a person with a persistent illness, whether physical or psychiatric, may either be adapting well or demonstrating maladaptive coping responses. Suicide is often regarded as the ultimate maladaptive response to depression or overwhelming stress (Stuart & Sundeen, 1995).

Historically, nursing has attempted to abandon the language of the medical model and concomitantly, to reject the mechanistic paradigm the medical models express. Ironically, medicine itself appears to be in transition from its own medical model to one that seems more aligned with some of the beliefs that the nursing profession has been espousing since inception. There is within that field an emerging language that focuses on holism, psychosocial phenomena, and ecology (Munhall & Boyd, 1993).

In the Federal correctional environment health care is provided by a variety of disciplines, including nursing, medicine, psychiatry, and many other health professions. One of the benefits of the stress adaptation model of nursing care is that it is able to reflect the complementarity of nursing and medical models of practice. (Burns & Grove, 1997)

Notwithstanding the limitations, the data analyzed in this study provide the practicing clinician with a better tool for developing profiles indicating high risk for suicide among inmates in the Federal correctional setting. The publication of a valid set of factors that indicate unusual risk or predisposition for suicide would be most useful for those

working in this and other penal systems, for targeting inmates in need of special assistance during crisis. Once identified as high risk individuals, various interactive and problem-oriented processes well known to psychiatric health services can be employed to help the inmate through times of stress or grief.

Definitions of Relevant Terms

For the purpose of this thesis, the following definitions will be used for terms common to this thesis and the discussion of suicide in general:

Coping mechanisms. Any effort directed at stress management.

Coping resources. An evaluation of a person's coping options and strategies.

Inmate. Any individual legally confined to a correctional institution.

Predisposing factors. Risk factors that influence both the type and amount of resources the individual can elicit in order to cope with stress.

Precipitating stressors. Challenging, threatening, or demanding stimuli that require excess energy for coping.

Psychological autopsy. A structured review of various historical, environmental, demographic and psychological factors related to a self-inflicted death.

Suicide. The intentional act of killing oneself.

Assumptions

Several assumptions underlie the present study:

1. The stress adaptation model adopted for this research assumes that nature is ordered as a social hierarchy and that care is provided through the use of the nursing process, within biological, psychological, socio-cultural, and legal contexts (Stuart, 1995).

2. Life is characterized by risk. Individuals choose the amount of potential danger to which they are willing to expose themselves. These choices are not always conscious and rational.

3. Theories of self-destructive behavior overlap with those of self-concept and disturbances in mood. Low self-esteem and depression are almost always present in self-destructive behavior.

4. Health care workers share a responsibility to assist in the restoration of health and well being of all clients, promoting adaptive responses to the stressors of life.

5. Administrators of correctional facilities will be held to a high degree of accountability for the management of suicidal offenders in this country's prisons for years to come.

6. Suicide prevention programs will be required in all detention and correctional facilities in this country, which will include the most successful documented strategies for preventing suicide.

7. Suicide represents the ultimate failure of human adaptive coping mechanisms.

Limitations

The known limitations in this study include:

1. As is true for all secondary data, it is never possible to control for the maximum reliability of the data, in this type of research.
2. Suicide is often a difficult diagnosis to document. It is believed that many investigators are somewhat reluctant to label death in this manner. It is probably safe to assume that there is a significant underreporting of suicides each year (Lester, 1997).
3. A conspicuous lack of documented research in the area of suicide in the Federal prison environment causes difficulty in substantiating findings that have not borne the tests of time and additional research. Also problematic, is that data of the type used in this research does not always lend itself to statistical or methodological review.
4. Through the use of a psychological autopsy, the facts surrounding a suicide are reconstructed as best as possible, often in the face of reluctant informants. It is rarely determined if all of the facts are uncovered (Beck, Resnick & Lettieri, 1986).
5. The calculation of rates of occurrence in suicide is often performed differently, by different researchers. The literature review for the present study indicates this discrepancy. In addition, there are a group of Mariel Cubans in our Federal system who demonstrate a rate of suicide approaching as much as 75 per 100,000. The inclusion of this group in any nationwide study tends to inflate the data substantially (White & Schimmel, 1995).

CHAPTER II. REVIEW OF LITERATURE

Introduction

The purpose of this chapter is to review the literature on inmate suicide, and to determine the usefulness of previously published works in the examination of suicide in the U.S. Federal correctional environment targeted in this study.

Review of the literature reveals that although there is considerable information on the subject of suicide in the correctional setting, the vast majority of published works focus primarily on state and local facilities and on smaller municipalities here and abroad. These levels of government typically utilize jails and detention centers to house an inmate population with vastly different characteristics than those incarcerated in Federal prisons (White & Schimmel, 1995). Also, because comprehensive records of death by suicide have, surprisingly, never been maintained by most state agencies, adequate studies at this level of jurisdiction have been largely impossible to undertake. For these reasons, the proposed study has potential for contributing to the knowledge of nursing and enhancing the provision of health care in our Federal prison system, while strengthening the ability to detect precipitating stressors of suicide.

Only two relevant studies were found on suicides among prison inmates in the U.S. Federal population. The first was initiated in 1987 and discussed demographic variables among Federal inmates completing suicide during the previous 5-year period (Schimmel, Sullivan & Mrad, 1989). A second study, conducted by a close associate, compiled similar data from the 10 year period, 1982 to 1992 (White & Schimmel, 1995).

The design of this chapter should provide an understanding of the characteristics of

inmates that predispose them to deliberate acts of suicide, and to present abstracts of the literature that have relevance for the target population. The literature review was completed in three phases, and for the purpose of this thesis has been organized into three separate sections:

The first section includes a general overview of the extent of suicide in society, and the often familiar profiles of the people who are compelled to take their own lives. This section will provide the essential framework for those not familiar with the various characteristics of suicide to adopt an awareness of the basic traits of humans who are driven to self-destruction, and to develop a better understanding of commonly occurring events that lead to this phenomenon.

In the second section, the focus will be on those studies published in the past twenty years that discuss suicide in the correctional environment. A relatively small and scattered body of research exists in print on the subject of inmate suicide, and it is useful here only to demonstrate that certain ways and means of dealing with this institutional problem have been implemented and studied in similar settings. In this section, certain obvious relationships begin to emerge between characteristics of those incarcerated, and the act of self-annihilation. This literature, however, is still largely focused upon subjects from various jails and detention centers, a group which have historically demonstrated a unique set of traits, often scantily intercorrelated, that may have little to do with the target population in this thesis. Nonetheless, it was thought that a comprehensive examination of all types of institutional suicide would be of preliminary value to the research, and excerpts of previous studies have served to lay a foundation for a final look at suicide in the FBOP.

Finally, a review of all published research that has devoted exclusive scrutiny to the Federal inmate population demonstrated the scarcity of factual data on this research topic. There have been a mere handful of studies involving suicides among domestic federal prisoners, and therein lies the significance of the research effort.

As the eighth leading cause of death in the United States, suicide prematurely ends the lives of 30,000 people a year. For some groups, the statistics are nothing less than alarming. In the past 40 years, the suicide rate in this country has tripled for young men and doubled for young women, rising to the third leading cause of death for 15 to 24 year-olds. By the year 2000, rates for young black males will have quadrupled during a 20 year period. (Lester, 1997).

Given the fact that there are an estimated 50 to 100 attempts for every completed suicide in America, the extent of the problem becomes staggering. In fact, one out of every two Americans will consider, threaten, or attempt suicide in a lifetime. Because we know that many suicide attempts are never reported, and many suicide deaths are misrepresented as accidents, the actual statistics are far higher than those documented or reported here. Further, the investigation of suicide is always carried out retrospectively. This forces researchers to largely examine the unsuccessful attempts which represent a very different population than those who suicide.

There are several theories that consider suicide and its causal factors, the most noted of which was proposed by Durkhiem. During the late 1800s, Emile Durkhiem was one of the first social scientists to propose reasons for the differences in the frequency of suicide among different populations. He believed that a group of

individuals could be considered homogenous if its members possess many shared beliefs and sentiments. Because most persons belonging to a particular group experience the same basic levels of social integration and social regulation, Durkheim proposed that rates of suicide within the same group or society would likewise exhibit predictable characteristics (Taylor, 1990).

Though Durkheim's approach to suicide has often been challenged in its entirety, few sociologists will disagree that certain social factors are indeed reliable predictors of suicide rates, and that traits of suiciders will differ greatly among different populations. This is an important concept in the present research, as it illuminates the difficulty that past researchers have experienced when discussing suicide among different groups of incarcerated persons both here and abroad, at various levels of jurisdiction. It is now clear that suicide rates for jails and detention centers are much higher than those found among Federal prisoners (White & Schimmel 1995).

Regardless of the population, it is clear that many factors can be identified in the suicidal person. David Lester (1997), Professor of Psychology at Stockton College, has identified many behavioral changes in the general population that should be regarded as warning signs of someone at risk for suicide. In addition, Lester has also identified a collection of life circumstances that can also significantly increase a person's risk for lethal self-harm (See Appendix A). The single most effective way to prevent suicide is to learn how to recognize risk factors.

Other factors discussed in the literature included genetics, physical state, physiologic state, physique, environment, and cultural differences. As far as is possible to ascertain,

genetic factors are not responsible for suicide. In spite of suggestive examples of familial predisposition (eg. Hemingway family), there is no convincing evidence that heredity plays a significant role in the occurrence of suicide (Lester, 1997).

Constitutional factors, however, often predispose to suicide, the best example being poor health. It has long been known that painful, debilitating or terminal health issues present a substantial risk factor for suicide in the elderly. It has also been found that physiologic factors such as biochemical changes in the body, especially certain neurotransmitters in the brain, are thought to be responsible for a variety of mental illnesses, and hence deficits are often blamed for depression and suicidal behaviors.

Physical states have also been studied in connection with suicide. In fact, studies have shown that suicide is more prevalent in the two extremes of body types -- those individuals who are both substantially overweight and underweight are actually more likely to kill themselves than people of normal weight (Thomas & Greenstreet, 1973).

Environmental effects on behavior are largely studied as cultural differences between individuals, and it is clear that there exist considerable differences in suicide rates from one culture to another. Many studies have highlighted differences in the attitudes of the Japanese, customs of Scandinavian countries, and tribal practices of many African nations. Suicide occurs in primitive societies as well as in developed societies. Though rates differ dramatically between various cultures of the world, exact rationale remains unclear. It is likely that the answer lies in the degree of social acceptance of suicide as a means of dealing with crisis.

Most prisoners who commit suicide do not fit into the previously mentioned profiles.

Though all suicide victims may have some traits in common, the circumstances surrounding inmate suicides differ greatly from the typical non-inmate suicide. It is therefore of obvious importance to identify the characteristics of the typical inmate suicide. It is important to bear in mind that most available data are derived from state prisons in the U.S. and other free-world countries. As stated earlier, these characteristics differ from those of Federal prisoners. Thus, discussion of non-Federal jail and detention center inmates was not found especially useful in explaining suicide among the study population.

The majority of the research suggests that the typical inmate suicide is by hanging. Some data also show that the inmate is a single, white male, usually in his twenties, likely to have one or more prior arrests, who was sentenced for a crime against a person. Often burdened by recurrent psychiatric illness, this inmate usually has a chronic history of stressful life events that is likely to have increased in the past few months, and there is often a history of previous suicidal behavior. Those with prison sentences of less than 5 years, and more than 25 years account for about one third of all prison suicides (Lester & Danto, 1993). Throughout the literature, it also appears that the successful suicider in prison comes from a single-occupancy cell, and many are found to be in punitive detention or isolation cells.

The usefulness of identifying which demographic and psychological characteristics are more commonly found in suicidal inmates lies in the ability to identify a suicide-prone personality and thereby intervene with the suicider before he kills himself. One of

the basic underlying tenets of this research is that meaningful profiles can be useful to all members of the correctional staff as well as health care providers.

Since research on suicidal prisoners has uncovered a high incidence of psychiatric illness, it follows that a timely assessment of an individual's current psychiatric state upon admission to custody is appropriate (Anno, 1985). In fact, the myriad lawsuits brought against various levels of the correctional community annually, should soon convince most administrators that a thorough psychiatric evaluation is not only useful but should be mandatory.

Several tools have been developed to assist in identifying the risk of suicide. Often termed suicide assessment scales, these screening tools can bring to focus episodes of previous mental illness, psychiatric hospitalizations, and personal or familial history of suicidal behavior. When combined with an assessment of risk factors, this information could prove to be the single most valuable resource in the hands of correctional and health care workers (Anno, 1985). (See Appendix B).

Though often criticized as costly and time consuming, a psychiatric screening device, in many different forms, has proven effective in predicting maladaptive responses while incarcerated, and ultimately, in reducing the incidence of suicidal behavior (Hopes & Schaul, 1986). In addition, these screening tools can also help to ensure that correctional institutions are meeting clinical and legal standards of care, thus avoiding costly civil lawsuits while serving to assess the urgency of interventional management.

The incidence of suicide among U.S. Federal prisoners has been researched by less than a half dozen published contributors, the most comprehensive and recent of which

are the Schimmel and White studies of 1987 and 1992. These studies agree with earlier observations, that although rates of suicide in the Federal system are not as high as those of state and local correctional facilities they do seem to be similar to rates of mortality by suicide in the general population. Previously reported rates of suicide in the Federal prison system have had to be adjusted to accommodate for the unusually high rates of Muriel Cubans, and suicides by inmates that were not yet sentenced or on furlough. This was accomplished by Schimmel, et al for the period 1983-87 and compared to previously reported data in the Federal Prisons Journal, Summer, 1989 (See Table 1).

Table 1.

Comparative Suicide Rates from 1970 - 1987

<u>Time Period</u>	<u>Cited Rate</u>	<u>Adjusted Rate</u>
1970-77	28/100,000	35/100,000
1977-81	24/100,000	34/100,000
<u>1983-87</u>	<u>24/100,000</u>	<u>24/100,000*</u>
*without Muriel Cuban detainees		21/100,000

Source: Schimmel, Sullivan & Mrad, 1989; Schmidt, 1978; Gaes, 1981

Thus, after adjusting for differences in methodology, there appears to be a downward trend in the suicide rate of federal prisoners in this country. The present suicide prevention program in use by the U.S. Bureau of Prisons was adopted in 1982, as a result of research done by Gaes, Beck and Lebowitz (1981) and Anne Schmidt (1978).

The following summary of characteristics is a synopsis of the results reported by Schimmel, Sullivan and Mrad (1989).

Gender

All suicides reported involved males. Though the rate for attempts or gestures is actually higher than that of males, there have apparently been only a few completed female suicides in the history of the FBOP, none that were recorded since the mid-1970's. The suicide rate for male inmates was about 26 per 100,000; the annual rate for males in the community, (often considered an underestimate) was about 18 per 100,000 during the same period.

Method

The most frequent method of suicide was by hanging, 79%, while 12% were by self-inflicted cuts, two individuals overdosed on medication, one jumped from a second story tier, and one shot himself while on furlough.

Place

The most common place for a suicide to occur was in a segregation or seclusion cell. Fifty-six percent of all suicides were found in seclusion and 29% in regular housing units. One suicide occurred in a medical unit, one in admissions, and one while on furlough. (None occurred while a suicide watch was in progress).

Time of Day

Forty-eight percent of all suicides occurred during the period between midnight and 5 a.m. A small cluster of suicides was noted to occur around 4 p.m., just after the count, which was hypothesized to be manipulative, because of the higher possibility of

discovery at that time. The remainder were evenly distributed throughout the day.

Psychiatric / Suicidal History

In 36% of cases, a previous diagnosis of schizophrenia or other psychotic condition was noted. In several other cases there was a history of treatment for non- psychotic depression. Clearly, the rate of mental health problems was disproportionately high among those who complete suicide. In almost half of all cases, (49%), there was a history of at least one previous attempt; for most there were multiple previous attempts.

Time of Year

Thirty-three percent of all documented suicides occurred in May or June of each year. The remainder were evenly distributed across the other months, with a slight increase seen again in January and February.

Race / Ethnic Groups

About 40% of the suicides were by whites, 35% by Hispanics, and the remaining 25% were by blacks. White males appear to lead in all suicides from data reviewed.

Sentence Length

A review of the length of sentence of suicidal inmates seems to reveal three distinct high-risk groups. First, almost 20% of the population completing suicide were in the pre-sentence population. The majority, or 28% were in cases involving a sentence of greater than 20 years. The third high-risk group, the Cuban detainees, represented another 19% of all suicides. Among factors thought to precipitate suicide in these groups include family and legal problems. Inmates sentenced from 20 years to life were often found to be having problems within the institution, and often appeared to be

feeling threatened or in need of protection.

Age

While most previous studies suggest that the 19 to 24 year-old inmate is at highest risk of suicide, the the data from the Schimmel et al study reveal only 12% from this group. The highest number of suicides, (39%), occurred in the 30 to 39 year-old group, which represent 40% of the population in the study. By age group then, the overall distribution of suicides did not demonstrate any one group as being at significantly higher risk than another (See Table 2).

The latest study, by White and Schimmel (1995) appears to offer the most current and reliable source of information available at this writing. Psychological autopsies of the most recent deaths by suicide in the Federal prison system appear to be very consistent with data from the Schimmel study. Though percentages will vary, completors of inmate suicide remain caucasian males, age 31 to 40, usually with a mental health problem, with a strong chance of previously documented self-destructive gestures in the past. This inmate profile continues to reveal strangulation as a primary means while in a detention or special housing situation. As in the Schimmel study, White noted three primary groups at risk, which include the previously identified pre-trial inmates and Muriel detainees, and the sentenced inmates serving greater than 20 years.

Table 2.**Percent of Total Prison Population / Suicides by Age Group.**

Age	Total Prison Pop.	Suicides
Under 26	11%	12%
26 - 29	14%	19%
30 - 39	40%	39%
40 - 49	22%	21%
49 - 59	9 %	9%
60 +	3 %	0%

Also of interest, was that when studied by level of security, inmates in the administrative and higher security facilities appear to be at higher risk than those in medium security or other lower institutions. White and Schimmel (1995), however, did not find any readily apparent pattern associating the time of day with the occurrence, nor did they identify summer months; October and January appeared to be the most likely time of year. Though admittedly speculative, additional data by use of psychological autopsy was compiled by these authors that suggest certain precipitating factors that may have led to the most recent suicides. New legal problems were evident in 28% of the study group, marital or relationship difficulties in 23%, and inmate-related conflicts were discovered in 23% of those who completed suicide.

In addition, the researchers reviewed several other characteristics relating to personality, education, and social factors. When this profile was compared with data of

previous years, the results were remarkably similar. The following is an excerpt from the report published by the U.S. Department of Justice, National Institute of Corrections, in June of 1995. The profile reported is based upon all previous cases, involving only inmates in the U.S. Bureau of Prisons:

The victim was a relatively young (35 years old) male, Caucasian (or possibly Cuban), with few friends or family ties in the community. He was a quiet, aloof individual who stayed to himself, was poorly educated, and had little religious affiliation. He frequently had a history of mental health problems and referrals, including past suicide attempts, but was not viewed as suicidal or actively psychotic immediately before his death. The victim was probably housed in an administrative facility and facing new legal complications or was in a high-security institution and experiencing significant marital or family problems. As an inmate in protective custody, the victim frequently voiced exaggerated fears for and preoccupation with his safety, but otherwise did not demonstrate any unusual behavior or give any overt warning of his intention before the suicide. The incident would occur in the early afternoon, or evening, and the victim would hang himself with a sheet attached to a light fixture or grate over an air vent. He would leave no suicide note. (White & Schimmel, 1995)

Summary

In conclusion, the review of literature supports the development of a consistent and reliable data base containing characteristics of suicidal inmates from the U.S. Federal prison system. Though the reported research does not demonstrate a direct cause and effect relationship between traits and incidence of suicide, they do provide useful

information for future program policies, training efforts, and development of screening tools for health care providers and various other correctional staff, employed by the U.S. Federal Bureau of Prisons.

CHAPTER III. METHODOLOGY

Introduction

The methodology involved in the study of suicide has historically been one of the most difficult aspects of the research process. Most researchers will agree that human behavior presents a very unique problem for study, primarily because there is no one single characteristic that completely explains it. In addition to the fact that suicide studies are necessarily conducted ad hoc, the search for etiology in the classification of human behavior leads to little more than a basic understanding of the causes of behavior. Thus, methodology has to rely upon models which provide the structures from which hypotheses can be drawn for further testing (Zubin, J., 1986).

Research Design

In view of the origin of this research project, a nursing model was adopted for the purpose of providing a conceptual framework which guided the development of the study. The stress adaptation model of nursing care offered a design perspective which seemed well suited to describing the human behavior that we know as suicide (Stuart & Sundeen, 1995).

Sample and Setting

As of January 1997, over 100,000 inmates were incarcerated in 132 Federal institutions throughout this country. (U.S. Dept. of Justice., 1998). Each institution is required to have a suicide prevention program, while the chief psychologist of each facility acts as program coordinator for that facility. Among various other duties, the chief psychologist is responsible for standardized record keeping and systematic data

collection (White & Schimmel, 1995).

This study examined a sample of all documented suicides found to have occurred among inmates in the U.S. Bureau of Prisons, for the 5-year time period 1993-97. This group was then compared to data previously examined by White and Schimmel (1995) for the years 1987-92 and to data from the Schimmel study of 1982-87. Inmate records were examined for demographic and situational data which were compiled and analyzed.

Measurement Methods

The methods of data collection and analysis used in this study are a replication of the tools used by White and Schimmel (1995), called the psychological autopsy. This method was initiated by the Schimmel team in the study of 1982-87, and again employed for the study of 1988-92. It refers to the process of reconstructing an individual's life as it was immediately before death. Through the use of interviews with all persons who had contact with the deceased, the interviewer attempts to understand the feelings, thoughts, motives, and behaviors leading to the death. While the technique is not new in the civilian community, it has only been used to a limited extent in correctional settings. Permission to use these tools as well as original data obtained from BOP records kept in the archives of the U.S. Department of Justice was obtained through Dr. Thomas White, regional psychological administrator of the North Central Region of the FBOP, with final approval of the research proposal granted by the research department of the Bureau of Prisons.

Validity and reliability are also concerns in historical research and are related to the sources from which data are collected. While primary data are highly valued, most

researchers are rarely in a position to become eye-witness accounts of events such as suicide. A study of suicide relies largely upon secondary information such as an incident report or collection of accounts reporting the event after investigation, which are hoped to be accurate and without bias.

Demographic data are reproduced from files maintained on each individual, and often reflect information that the inmate has disclosed by interview, or has been recorded from other previous documents. In either case, the data are assumed to be accurate and correctly identifies the subjects of our research.

Protection of Human Rights

Permission for this study was obtained from the department of Research and Development, FBOP, and from Dr. Thomas White, Regional Administrator of the North Central Region of the Federal Bureau of Prisons. The proposal was submitted to the Institutional Review Board (IRB), Research Administration, at the Uniformed Services University of the Health Sciences, and a copy of the IRB approval was forwarded to the Central Office Research Department of the Federal Bureau of Prisons.

Protection of human rights was observed throughout this study. All archival records were kept in locked files and no personal identifiers were used in any part of this study. All data were used in aggregate form, solely for statistical value, and no non-employee of the U.S. Federal Bureau of Prisons was directly involved in the research. Department of Justice directives were observed as outlined in DOJ program statement PS 1070.05, dated 2/12/97. Per provisions of the Federal Privacy Act of 1974, informed consent was not required for this study, as only archival information was used. All records and copies

were returned to the FBOP or destroyed as directed at the termination of this study.

Plan for Data Analysis

Data analysis consisted of summary statistics and cross-tabulations for the major variables of interest including demographics such as age, ethnicity, gender, marital status, and other factors that are considered contributory to the risk of suicide. These other variables include length of sentencing, type and severity of crime, documented previous attempts, and level of incarceration at time of death.

The investigator expected to find that certain predictors of suicide could indeed be considered significant in view of their capacity to warn of risk or potential for self destruction. Much of the literature appears contemptuous of this type of use of the data; it may be that some are concerned with past attempts to prove that a phenomenon is caused by factors x, y, and z , as opposed to a statement that simply serves to illuminate a close relationship or demonstrate a reasonable correlation . Associations of this type have been used to link smoking and cancer, stress and heart disease, and hypertension with stroke. These assertions have never been proven, but have been instrumental in saving many lives, and as such have well served the purpose for which the research was conducted.

CHAPTER FOUR: ANALYSIS OF DATA

Introduction

Data for this study consisted of descriptive statistics for the major variables of interest concerning suicide among inmates in the U.S. Federal prison system. A total of 61 inmates committed suicide during the period from 1993-97. This represents an average rate of 12.8 per 100,000 population per year. The variables examined included major demographic traits, methods of suicide employed, lengths of sentencing, types of institution, and times of day and year. Other contributing or facilitating factors were also briefly discussed. The establishment of an updated composite profile of the typical inmate who completes suicide while in federal custody was the final focus of discussion.

Characteristics of Study Sample

Gender

All 61 Federal inmates who committed suicide from 1993-97 were male. In an earlier study, all completed suicides were also male. White and Schimmel (1995) noted that the number of female inmates in the Federal population has increased dramatically in recent years, yet no female has committed suicide while in federal custody since 1970.

Age

Suicide occurs most frequently among inmates between the ages of 31 and 40 years of age. The average age of the suiciders, 37, was identical with the average age of the total prison population. As White and Schimmel (1995) pointed out, this reflects the overall age distribution of offenders in the system, thus the greatest number of suicides would be expected to be found in this age group. Table 3 shows percents of inmate

suicides by age, and compares them to the total inmate population for 1997.

Table 3.

Percent of Total Prison Population in 1977 / Suicides 1993-97

Age	Total Prison Population	Suicides
<26	13	15
26-30	19	10
31-40	35	38
41-50	22	25
51-60	8	10
>60	3	2

Race

Fifty-four percent of the inmates who committed suicide during this time period were white. This compares to 57% of the total prison population in 1977. Minorities composed 46% of suicides, of which 21% were Black, 12% were Hispanic, and 13% were of other ethnic origins. As mentioned previously, Mariel Cubans, with 3% of total suicides, tend to have a disproportionately high incidence of suicide while incarcerated. Table 4 compares suicides by race and total inmate population for 1997.

Table 4.**Percent of Total Prison Population / Suicides by Race**

Race	Total Population	Suicides
White	57	54
Black	40	21
Other	3	25

Note: The specific ethnic distribution for other minorities was not available for the total population, in Table 4.

Psychiatric / Suicidal History

Of the 61 suicides between 1993 and 1997, 38 (62%) had a documented mental health problem. Diagnoses of those with mental health problems were varied, and ranged from mild intermittent depression to severe psychotic disturbances. Twenty-six of the suiciders (43%) had a documented history of previous attempts or gestures at self-harm. This is similar to earlier studies which reported 40% and 49% with a history of self-destructive behavior.

Method

The most frequently used method of suicide was strangulation by hanging. This method was found to be used in 55 of the 61 deaths (90%) in this study. Two died of blood loss related to self-inflicted wounds, two from asphyxiation by other means, one from drug overdose, and one from a deliberate fall.

Housing

The most common location for suicide while in the Federal correctional environment

was found to be locked units such as segregation units, special housing units, detention units, or secured mental health units. Forty-three of the 61 reported deaths by suicide occurred while inmates were in housing that is seclusionary or apart from the general population. This represents 70% of total suicides, and closely approximates the report of two-thirds of the study population found in the Schimmel and White studies.

Type of Institution

When the suicides in this study were reviewed in relation to the type of institution in which they were being housed, almost half were found to be incarcerated in either a Federal Correctional Institute (FCI) or in a U.S. Federal Penitentiary (USP). While these are medium to high security institutions, they are still a likely place for suicide to occur. The remaining cases were housed in various types of metropolitan correctional centers, Federal prison camps, medical centers, or Federal transfer centers for assignment to other facilities.

Length of Sentence

As previously found, a high percentage of inmates committing suicide were found in pre-trial status (Table 5.). In the present study, 19 inmates or about one third of the inmates died before sentencing, whereas 18% had over 20 years remaining at time of death.

Table 5.**Percent Distribution of Prison Suicides By Sentencing**

Length of Sentence	#	%
Pre-trial	19	32
Less than 5 yrs.	10	16
Five to 20 years	21	34
More than 20 years	11	18
Five year total:	61	100%

Time of Day

Times of day at which suicide occurs have been divided into 4 periods: 6am to noon, noon to 6pm, 6pm until midnight, and midnight until 6am. The suicides in this study occurred almost equally between the time periods from 6am until midnight, with a slightly higher incidence noted between midnight and 6am. This finding is largely consistent with the most recent studies. (See Table 6.)

Table 6.**Prevalence of Suicides by Time of Day**

Year	12am -6am	6am -12pm	12pm - 6pm	6pm -12pm
1993	5	0	3	3
1994	7	4	4	1
1995	3	3	2	1
1996	2	1	3	4
1997	5	4	2	4
Total	22	12	14	13

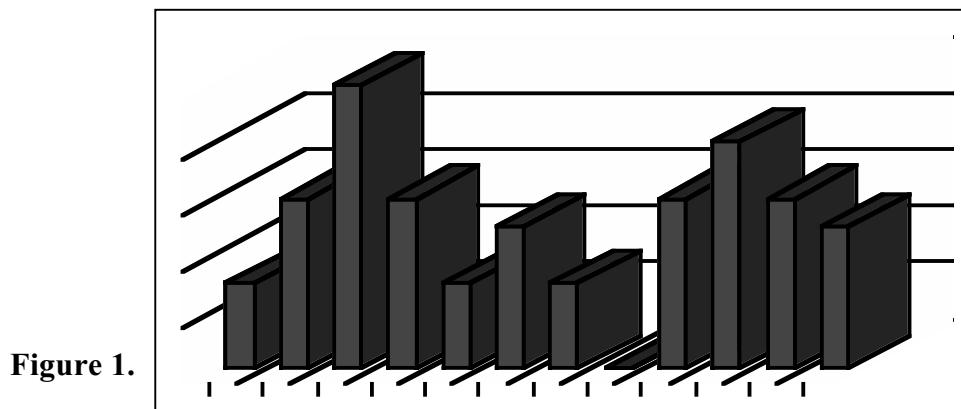
Unlike the findings reported in the Schimmel study, in which nearly 50% of suicides occurred between 12:00 midnight and 6:00 am, the current review found less than a third of the suicides occurring during this period. As White and Schimmel (1995) point out, rearranging the time frames to coincide with count times may yield nothing more meaningful or correlative.

One point of interest regarding time of day for suicides in the correctional environment is the fact that there are clusters of incidents around head count times. Since staff are required to conduct head counts at pre-determined intervals, this may be an opportune time for the inmate who is manipulating his own discovery.

Time of Year

FBOP suicides are largely scattered throughout the year. The months of October and March had the highest occurrence, accounting for 30% of the total number of

suicides annually (Figure 1). Other months averaged slightly more than five suicides per month bureau wide. Previous studies have found that time of year appears to have little bearing on the frequency of suicide within the FBOP.



Prevalence of Suicides by Months of the Year

Preliminary Data Analysis

Throughout this study, it became apparent that there may exist relevant factors impacting inmate suicide that were not addressed by the variables previously discussed. Although data in many areas of the study were often fragmented, certain data from the psychological autopsies suggested precipitating factors that might have led or contributed to the occurrence of suicide:

1. Almost two-thirds of the sample group were not married. Many revealed histories of broken marriages, stormy relationships, separation, and divorce.
2. Many of the suicides had extensive legal problems, ranging from new charges or additional convictions since incarcerated to anticipation of lengthy sentences.
3. Some records suggest that inmate-related conflicts can also be of great concern,

usually to that segment of the population serving lengthy sentences.

4. A few isolated cases point to health problems, exclusive of psychological disturbances, as a motive for suicide, though evidence to support this contention was scarce.

5. Of significant importance may be a frequently documented history of extensive dysfunctional interpersonal relationships. Those who commit suicide are often found in special detention units and are commonly viewed as behavioral management problems.

6. Finally, in spite of numerous contemporary articles and references regarding suicide in general, the accounts solicited from staff and peers alike tend to agree that most victims of suicide do not signal their intentions in advance.

Primary Data Analysis

The preceeding data, when combined with other distinguishing characteristics found by psychological autopsy, allow for the construction of a reasonably accurate profile of the typical federal inmate who commits suicide. This profile is the result of careful examination of all 61 suicides in the FBOP between 1993 and 1997. Not surprising is the fact that when compared to studies previously acknowledged, the results are remarkably similar:

The suicider is a white male, in his mid-thirties, mainly divorced or separated, with few ties to family or friends in the community. Usually quiet and cooperative, this individual often prefers to be alone, has less education than the average of his peers, and rarely has any strong religious ties. More often than not, there is a long history of mental health problems and referrals for psychiatric services (62%), and frequently a history of

past suicide attempts (43%). As previously noted, a conspicuous lack of forewarning of the event seems to be prevalent, from interviews conducted with all persons associated with the inmate at the time of the suicide. The inmate is usually found in a seclusion housing unit, (70%) facing new or additional legal problems, and often in a pre-trial status (30%). The suicide will often take place in the early morning hours, (36%) and will usually result from asphyxiation by hanging from a bedsheet or article of clothing. The victim rarely leaves a note.

In conclusion, the research has supported the ability to create an updated inmate profile, quite similar in characteristics to that developed from previous research. Chapter Five will offer implications from the study, and suggestions for future research.

CHAPTER FIVE: CONCLUSIONS & RECOMMENDATIONS

Conclusions

This research has taken the form of an epidemiological study which has endeavored to identify and assemble a reliable index of high-risk variables for completers of suicide in the U.S. Federal Prison system. This study was a planned replication of research previously conducted by Dr. Dennis Schimmel, and Dr. Thomas White of the Psychology Department, U.S. Federal Bureau of Prisons (FBOP).

The primary methodology employed in this study involved a comprehensive chart review of records maintained on deceased individuals from the archives of the FBOP. All subjects of this study are deceased as a direct result of completing suicide while in the U.S. Federal prison system. This information was aggregated to compile statistical information about groups of inmates as a whole. Individual identifiers were not used in any portion of this study. Suggestions and advice for this research effort were solicited and received from the Office of Research and Evaluation, U.S. Bureau of Prisons, from Dr. Thomas White, regional psychological administrator of the North Central region of the FBOP, from Dr. Eugene Levine, Chairman of the thesis committee and from other members of the thesis committee.

The study subjects included 61 documented suicides in the FBOP during the five-year period from 1993 to 1997. The primary research tool employed in data collection was the psychological autopsy, which reveals demographic and historical information about the circumstances surrounding the deaths of inmates. This tool was developed by the previous researchers, and was used to preserve continuity of reporting. Data

consisted largely of descriptive statistics, frequency distributions, and summary measures.

Written permission from the U.S. Bureau of Prisons was obtained before initiating the research, and all security and protection of human rights issues were strictly governed by Federal Bureau of Prisons policy, as outlined by the U.S. Department of Justice.

The research questions originally developed to guide this study were:

1. Which predisposing factors have been identified in previous research as characteristic of inmates likely to complete suicide in any correctional environment ?

In the past, the only correctional environment for which a large number of suicides have been reported is non-Federal jails. Most all of these suicide reports state that the typical inmate suicide is male, is in his twenties, and dies by hanging (Lester, 1993). Other reports cite correlated variables such as marital status, presence of alcohol or drug addiction, psychiatric disorders, days of the week and month, and length of incarceration. However, these factors are not always clearly related. Most find that the typical suicider is caucasian, but some offer data on suicides by blacks or Puerto Ricans. Some researchers imply that the crime that caused incarceration of the completers of suicide is likely to be a serious one against people; others report the crime is likely to be minor, and non-violent. While it is clear that more research is needed, it is even more obvious from the present study that local city and county jail detainees have little in common with inmates of U.S. Federal prisons. Specifically, there are no universal characteristics of all incarcerated populations that are reliable predictors of suicide.

It appears that attention must be focused on specific populations.

2. Which of these factors are also characteristic of the specific population of Federal offenders targeted in this study ?

Of the wide array of general characteristics of suiciders in jails and prisons, several traits have been identified as relevant and persistent within the U.S. Federal population. This was the primary focus of this study, and the traits enumerated in the updated inmate profile in Chapter Four, such as age, marital status, and typical social patterns are specific only to the study population. Many of the conclusions suggested by the White and Schimmel studies, (1995) such as previous suicidal behavior, type of housing unit, and cause of death were also found to be consistent with present data.

3. Which of the shared characteristics are different than those found in the White and Schimmel studies of 1987 and 1992 ?

While minor differences in time of day, month of the year, and length of sentencing were noted between the present and past studies, no significant discrepancies are noteworthy. The typical suicider in today's modern Federal facility is still a poorly educated caucasian male, usually in his mid-thirties, with many previously identified legal and psychiatric problems. Not surprisingly, these same factors were still found to cause considerable stress for a person with little or no support system. The demographic and situational events surrounding the suicide do not seem to have changed greatly in the past five years.

4. Do the results of this study indicate that suicide prevention programs in use by the Federal Bureau of Prisons are effective and / or satisfactory ?

Unlike the White and Schimmel studies, (1995) this research did not include an evaluation of any agency's specific suicide prevention program, as the objectives of this study were not intended to confirm or reject the efficacy of present programs in use by the FBOP. It was apparent, however, that previous studies supported the effectiveness of programs presently in place with the FBOP. This study's value lies in the confirmation of the status quo with respect to characteristics of suiciders among the Federal inmate population, and a rate of suicide among inmates that appears to be similar to the U.S. population as a whole.

It should be noted that according to the literature, the suicide rate within the FBOP has declined substantially since the adoption in 1982 of the program statement regarding suicide prevention efforts. White and Schimmel (1995) attest that their research appears to support the long-term effectiveness of the FBOP's suicide prevention program. In an article written for the U.S. Department of Justice, the authors point out that although the data could not provide a direct causal link ... the overall decline of 43% in suicide rates between 1983 and 1992 appears to be more than coincidental (p.57).

5. Do the data indicate that changes are appropriate in methods of assessment, management, or focused intervention with regard to specific inmate populations ?

The similarities between inmate profiles of the current and past studies would not support alteration of any major policy regarding suicide prevention programs in the FBOP, given the overall acceptance of the present programs. Though this research effort would have been greatly aided by the use of a single, standardized form for psychological autopsy, the authors of the previous studies have reported that a high

degree of satisfaction was solicited from the chief psychologist of each region regarding present programs in place with the FBOP.

6. Are there any implications for enhancement of future program policy review or training efforts within the correctional system of the U.S. Federal Bureau of Prisons, in dealing with the problem of suicide by inmates ?

The greatest value of a replicative study often lies not in its contribution to the body of knowledge, but in its confirmation of the hypothesis and findings of previous research. The confirmation that a program created by research is working well is a valuable contribution to the knowledge base. Results of this study appear to confirm the effectiveness of a suicide prevention program that has been in place with the FBOP since 1982, since the present rate of inmate suicide is approximately one third of that reported for the period preceeding implementation. The most far-reaching implication of the research reported in this thesis may be the ability to recognize the importance of an ongoing, systematic approach to the problem of suicide in the FBOP. As we persist in gathering data and analyzing our findings, continued progress can be expected.

Recommendations for Further Study

Suicide has often been thought to be a leading cause of death in jails and prisons and to occur with greater frequency than in the general population (Hayes & Rowan, 1988). The present research does not support this belief. The average annual rate of suicide among inmates in the U.S. Federal prison system was estimated to be 12.8 per 100,000 for the period of this study, only slightly higher than the death rate by suicide among the general population (National Center for Health Statistics, 1998).

Comparisons notwithstanding, there does exist a high risk for this type of behavior in the U.S. Federal Prison system, and efforts to decrease the incidence have been considered appropriate. Previous research and efforts have focused largely on targeting those traits and identifiers that would warn officials of the impending risk of suicide. It is believed that knowledge of risks might allow various forms of intervention to be initiated that could prevent self-inflicted harm, or death. These interventions can be formalized into suicide prevention programs.

A suggestion could be made that the team of mid-level practitioners working in health services departments be more intensely utilized for suicide intervention. Specifically, it is the physician's assistant and the nurse practitioner who interact most frequently with inmates in the correctional medical environment, and as such, these personnel may represent attractive opportunities for education and implementation of changes to improve the vigilance against suicide.

Questions also arise as to the availability of materials used in the commission of the average suicide. Is the design of the inmate's quarters as safe as it could be? Could vents from which a bedsheet is commonly attached be located higher or placed strategically within the living environment, out of reach of the inmate? Could bedrails and rafters be eliminated altogether? Would these and other environmental interventions be remunerative, practical, or even effective in reducing deaths by suicide? Are present policies in place representing the best that we can do, or are there too many factors to control? Is the relative prevention of suicide a realistic goal?

In 1982, the U.S. Federal Bureau of Prisons issued its first formal policy regarding

suicide prevention. This policy, which is implemented in all federal institutions, outlines a contemporary and comprehensive range of procedures that pertain to the assessment, management, and treatment of suicidal inmates. Through periodic analysis of program reviews, and findings from research like the current and past studies, effective Federal suicide prevention programs can be developed and refined, and training programs can be structured for maximal effectiveness in the correctional environment. The data presented in this study, though not greatly different than previous findings, have important implications for future suicide management, policy review, and training programs within the FBOP. With suggestions for refinement from staff and inmates alike, effectiveness in this area can be expected to improve. Research will provide documentation and rationale for implementing clear guidelines for future management of the suicidal inmate.

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APPENDICES

Appendix A. Risk Factors for Suicide / Life Circumstances Contributing to Suicide ...	45
Appendix B. Suicide Potential Screening Checklist	46

APPENDIX A.

Risk Factors for Suicide

- Suicidal ideation - discussion of suicide, preparation for death
- Depression, hopelessness, or irritability
- Substance abuse - both alcohol and drugs
- Changes in behavior - eating, sleeping, or appearance
- Loss of energy - recent weight loss or gain
- Withdrawal from friends, family, work or school
- Change from extreme depression to being at peace
- Making negative comments about self

Life Circumstances Contributing to Suicide

- Recent distress, frustrations, disappointments, or losses
- Loss or disruption of normal social support networks
- Recent stressful life events - death in family, loss of job
- Recent exposure to suicide or to suicidal behavior
- Ready accessibility of individual to firearms
- Serious illness or belief of serious health problems

Lester, D., (1997). Making sense of suicide, (pp. 6-8) Philadelphia: Charles Press.

APPENDIX B.**Suicide Potential Screening Checklist**

Inmate's Name: _____ Reg. No: _____

Age: _____ Date of Incarceration: ____/____/____ Date of Assessment: ____/____/____

First Offense: [] Yes [] No Marital Status: Single [] Married [] Sep. [] Div. []

Symptoms of Depression:	Very Much in Evidence	Somewhat in Evidence	Not in Evidence
1) Suicidal thoughts, hallucinations or death	[]	[]	[]
2) Crying	[]	[]	[]
3) Depressed mood	[]	[]	[]
4) Expressions of hopelessness	[]	[]	[]
5) Expressions of helplessness	[]	[]	[]
6) Expressions of worthlessness	[]	[]	[]
7) Loss of energy, interest, or motivation	[]	[]	[]
8) Loss of appetite or recent weight loss	[]	[]	[]
9) Neglect of personal appearance	[]	[]	[]
10) Disturbances in normal sleep patterns	[]	[]	[]
11) Loss of sexual desire	[]	[]	[]
12) Loss of enjoyment	[]	[]	[]

& Danto, B. L., (1993). Suicide behind bars, Philadelphia: Charles Press

Lester, D.,

Suicide Potential Screening Checklist (cont.)

Past History:	Present	Absent
1) Suicide attempt w/in 12mo.	[]	[]
2) Past history of suicide gesture	[]	[]
3) Recent death / divorce	[]	[]
4) History of psych. treatment	[]	[]
5) History of violent behavior	[]	[]

Lester, D. & Danto, B. L., (1993). Suicide behind bars, Philadelphia: Charles Press.