A NEEDS ANALYSIS FOR FORENSIC CASE MANAGEMENT FOR PSYCHIATRICALLY DIAGNOSED INMATES UPON LEAVING JAIL

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A NEEDS ANALYSIS FOR FORENSIC CASE MANAGEMENT

FOR PSYCHIATRICALLY DIAGNOSED INMATES

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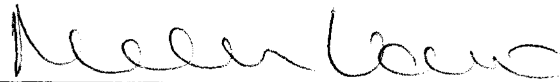
Signature:  3-7-00

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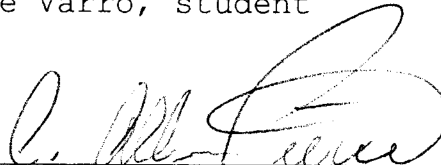
Approvals:  3/7/2000

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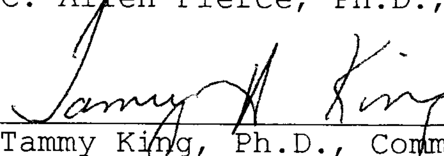 3/7/00

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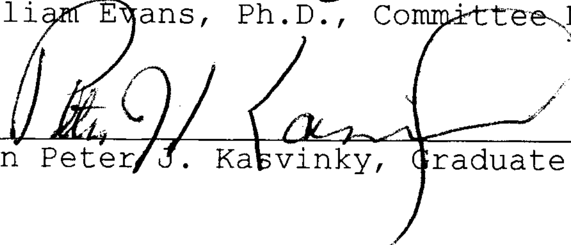 3/10/00

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ABSTRACT

An analysis of variables that affect the recidivism rates among mentally ill offenders was undertaken to assess the need for forensic case managers among this population. Data was collected at an adult jail in Pennsylvania that yielded a sample of 181 inmates who were assessed to be suffering from a mental illness or a dual-diagnosis.

Persons believed both to be mentally ill and to have committed criminal acts can often be enmeshed in a pattern of relationships between mental health and correctional agencies, such that they often receive the worst services that both systems have to offer. Studies addressing the treatment of mentally ill or dually diagnosed offenders report a lack of integrated mental health and substance abuse treatment programs for the incarcerated. Additionally, the lack of appropriate housing and aftercare once released from incarceration are also pitfalls to successful treatment. This study focuses on the need to resolve these problems and offers a case management model that integrates residential and outpatient aftercare and treatment for mentally ill or dually diagnosed offenders once they are released from incarceration.

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CHAPTER I

INTRODUCTION

Historically, the mentally ill once lived mainly in the community or in jails and hospitals along with the physically ill and the paupers. They were often treated brutally. In the nineteenth century, psychiatrists began to believe that there was a cure for mental illness and encouraged the building of state hospitals for that purpose. For example, in 1890 New York state passed a law that provided for the removal of all mentally ill persons from poorhouses and their treatment be in public hospitals (Gralnick, 1987).

At its peak in the 1950s, state hospitals housed almost 500,000 patients. Due to the overcrowding, many psychiatrists and other mental health professionals insisted that community care would benefit patients, and the new psychiatric medications would allow more patients to live safely outside of the hospitals, thus saving money (Gralnick, 1987).

On account of this process, mental health services in jails and prisons began to grow. The de-institutionalization of mentally ill persons reduced the United States mental health population to about 1,800 in the 1990's. At the same time, Department of Rehabilitation

and Correction's inmate population increased to over 40,000 (Wilkinson, 1997).

Statement of Problem

Mentally ill offenders are of continuous concern to correctional system personnel. Jails, particularly, have a significant concentration of mentally ill individuals as inmates, because jails serve as processing centers, holding accused persons for hearings and for trial (Gibbs, 1982). At midyear 1998, an estimated 45,408 mentally ill offenders were incarcerated in the nation's jails (Ditton, 1999). Accused or convicted of a crime, these persons have impaired cognitive and emotional functions. Although attention is given to the treatment of mentally ill persons in jail, not much attention has been given to the transition of mentally ill jail detainees back into the community. Because jail detainees with serious mental illness are often seen as undesirable by the community and because their community living situation is usually tenuous, persons leaving jail are at a particularly high risk for homelessness or reincarceration (Ditton, 1999). Service needs for mentally ill inmates leaving jail include initiating psychiatric treatment and counseling services with a community mental health agency, locating housing, and seeking sources of income. A person who suffers from a

mental illness may have difficulty coordinating these efforts.

The case management approach is thought to be beneficial for people leaving jail who are facing these complex service needs. It provides intensive services in the patient's environment with consistent, personal attention through case management to assist in negotiating a fragmented mental health system. The case management program also helps individuals make significant internal changes that are needed in order to help them avoid returning to the criminal justice system.

The case management approach focuses upon treating both the individual and the individual's immediate environment. This is accomplished by developing a therapeutic relationship with the patient that supports the patient and encourages development of more functional patterns of interpersonal relationships with significant others (Lamb, 1980).

While recidivism should remain a measure of case management effectiveness, the need to measure additional outcome indicators should be considered. The success of case management depends not only on proper supervision by well-trained case managers, but also on the characteristics of those individuals selected for case managers. Case management and other correctional programs depend on the

"reasonable predictability of human behavior under given circumstances" for their success (Glueck & Glueck, 1959, p. 2).

Mental Disorders

Psychiatrists have set up a diagnostic taxonomy of mental disorders, which is identified as the "Diagnostic, and Statistical Manual of Mental Disorder, Fourth Edition (DSM-IV)." In this manual, psychiatric disorders can be conceptualized as following under five broad categories: (1) mood disorders such as depression and bipolar disorder, (2) schizophrenia and other psychotic disorders, (3) anxiety disorders such as obsessive compulsive disorders and post-traumatic stress disorder, (4) personality disorders, and (5) substance related disorders.

Schizophrenia and Other Psychotic Disorders

These disorders are all distinguished by having psychotic symptoms, such as: delusions, hallucinations, disorganized speech, and disorganized or catatonic behavior. Some of the more common disorders include schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder, and brief psychotic disorder.

One of the most serious conditions in the whole field of psychopathology is schizophrenia (from the Greek schizo, "split" and phrene, "mind") (Brody, 1988). Schizophrenia is quite prevalent. According to one estimate, about one in 100 Americans will need treatment for this disorder at some period during his or her lifetime, typically between the ages of fifteen and forty (Brody, 1988, p. 134.)

The fragmentation of mental life characteristic of schizophrenia can be seen in disorders of cognition, of motivation and emotion, and of social relationships. A key symptom is a pervasive thought disturbance. A person who suffers from schizophrenia may have difficulty in maintaining one unified guiding thought, but rather skips from one idea to the next (Brody, 1988).

Another common facet of schizophrenia is a withdrawal from contact with other people. In some patients this withdrawal begins quite early; they have had few friends and little or no contact with the opposite sex. This withdrawal from social contacts has drastic consequences. The individual starts to live in a private world, a condition that becomes increasingly worse as time progresses. This withdrawal from others provides fewer opportunities for social-reality testing in which one's own ideas are checked against those of others and corrected when necessary. As a result, the individual's ideas become

more idiosyncratic, until he/she may have trouble communicating with others even if he wants to, resulting in further withdrawal. The final consequence of this cycle is a condition in which the patient can no longer distinguish between his/her own thoughts and fantasies and external reality (Brody, 1988).

The private world of an individual suffering from schizophrenia is organized in elaborate detail. They have strange beliefs, and may see or hear things that are not really there. Many develop ideas of reference, where they begin to believe that external events are specially related to them, personally. Eventually these ideas become systematized in the form of false beliefs or delusions.

Another phenomenon that is common among schizophrenics is hallucinations. In contrast to delusions, hallucinations are perceived experiences that occur in the absence of actual sensory stimulation. The individual "hears" voices or "sees" persons or objects. Hallucinations reflect an inability to distinguish between one's own memory images and perceptual experiences that originate from within.

There are several subtypes of schizophrenia that are defined by the kind of symptoms that are predominant. These subtypes include: paranoid, disorganized, catatonic, undifferentiated, and residual.

Individuals who suffer from schizophreniform disorder suffer from the same symptoms as individuals who suffer from schizophrenia with the exception of two differences: (1) the duration of the symptoms is at least one month and no longer than six months, and (2) impaired social or occupational functioning during the illness is not required for this diagnosis (DSM-IV, 1994).

Schizoaffective disorder has the fundamental characteristic of an uninterrupted period of illness during which there is a major depressive, manic, or mixed episode concurrent with the symptoms of schizophrenia. Individuals may have poor occupational functioning, restricted social contact, difficulty caring for themselves, and an increased risk of suicide.

The fundamental attribute of delusional disorder is the presence of nonbizarre delusions that continue for at least one month. Psychosocial functioning is noticeably impaired and behavior is neither obviously odd nor bizarre.

Delusional disorder has seven types. The type of delusion may be specified based on the predominant theme of the delusions present. These types are as follows:

1. Persecutory type. The predominant delusional theme is that one is being subjected to some kind of malevolent treatment, such as being conspired against, cheated, spied on, followed, harassed,

or poisoned or drugged. Legal actions of one sort or another are often instituted to redress the alleged injustice;

2. Jealous type. The predominant theme is that one's sexual partner is being unfaithful;
3. Erotomanic type. The predominate theme is that some other person of higher status, frequently someone of considerable prominence, is in love with one and wants to start a sexual liaison;
4. Somatic type. The prevalent theme is an unshakable belief in having some physical illness or disorder, often bizarre in nature, or in having some abnormality of appearance;
5. Grandiose type. The theme is that one is a person of extraordinary status, power, ability, talent, or beauty;
6. Mixed type. This diagnosis is used when no single theme predominates; and
7. Unspecified type. This applies when the dominant theme cannot be clearly determined (DSM-IV, 1994, p. 297-298).

Individuals who suffer from Brief Psychotic Disorder experience extreme emotional turmoil or confusion. It involves the sudden onset of at least one psychotic symptom, including delusions, hallucinations, disorganized

speech, or disorganized or catatonic behavior. The episode lasts at least one day but less than one month, and the person has a full return to the their level of functioning.

Mood Disorders

Another mental illness are mood disorders, which occur when a person's emotional status compromises their emotional functioning. Mood disorders are characterized by two emotional extremes - the vehement energy of mania, the despair and lethargy of depression, or both. In all mood disorders, extremes of emotion dominate the clinical picture. Mood disorders are divided into two categories: (1) depressive disorders, such as major depressive disorder and dysthymic disorder, and (2) bipolar disorder and cyclothymic disorder.

Much more frequent are cases of major depression. In depression, the patient's mood is dejected, his/her outlook may be hopeless, and he/she has lost interest in other people and regards himself/herself as worthless. In severe cases, there may be delusions or even hallucinations. In addition there are various physical symptoms. There is a loss of appetite, weakness, fatigue, poor bowel functioning, disturbance of sleep, and diminished interest in sex.

Depression can be lethal. Given the depressive's despair it is not surprising that suicide is a very real risk. Some attempt the act; many are successful. A majority of these symptoms must be present all day and nearly every day for two consecutive weeks before the diagnosis is applicable.

The symptoms of dysthymia are essentially identical to those indicated for the depressed phase of cyclothymia. They include: sleep disturbances, low energy level, low self-esteem, concentration difficulties, and pessimism. The main difference is that dysthymically disordered people evidence no tendency toward hypomanic episodes in their life histories. Rather, they exhibit moderate, nonpsychotic levels of depression over a chronic period of at least two years of more or less uninterrupted duration.

Bipolar disorder is distinguished from major depression by at least one episode of mania. The patient swings from one emotional extreme to the other, sometimes with intermittent periods of normalcy, and experiences both manic and depressive episodes that may be as short as one or two days and as long as several months or more. Bipolar disorders occur in about one percent of the population (Butcher, 1992).

Manic symptoms in bipolar disorder have a markedly elevated, euphoric, and expansive mood, often interrupted

by occasional outbursts of irritability or even violence. A notable increase in activity occurs, which may appear as an unrelievabble restlessness. Mental activity, also speeds up, so that the individual may evidence a "flight of ideas" and may experience thoughts that race through the brain. High levels of verbal output in speech or in writing are common features.

It has been recognized that certain people are subject to cyclical mood alterations with relative excesses of hypomania and depression that are not disabling. In the depressed phase of cyclothymia, a person's mood is dejected and he/she experiences a distinct loss of interest of pleasure in usual activities. In addition, the individual may exhibit sleep irregularity (too much or too little), low energy level, feelings of inadequacy, social withdrawal and a pessimistic and brooding attitude.

The hypomanic phase of cyclothymia have symptoms similar to a manic phase as described above such as an euphoric mood, an increase in activity, restlessness, and excessive levels of thoughts and speech. The diagnostic criteria specify at least a two-year span of disturbances for adults.

Anxiety Disorders

In addition to schizophrenia and other psychotic disorders and mood disorders, there are anxiety disorders. An anxiety disorder is characterized by an unrealistic, irrational fear of disabling intensity at its core and also as its principal and most obvious manifestation. The DSM-IV recognizes seven basic types of anxiety disorders: panic attack, agoraphobia, social phobia, obsessive-compulsive disorder, posttraumatic stress disorder, and generalized anxiety disorder.

Diagnostically, a panic attack is defined and characterized by the sudden occurrence of intense apprehension, terror, or fearfulness. During a panic attack, symptoms such as shortness of breath, palpitations, chest pain, choking or smothering sensations, and the fear of losing control are present. Panic attacks eventually lead to agoraphobia, where the person begins to fear having an attack and therefore fears leaving home.

The specific fear in agoraphobia is that of being in places or situations from which escape would be physically or psychologically difficult or in which help may not be available. Individuals who suffer from agoraphobia usually fear travel in general, and they commonly avoid cars, buses, airplanes, trains, and so on. These individuals are even apt to be uncomfortable venturing outside their homes alone.

Social phobia, or social anxiety disorder, is characterized by considerable anxiety in social situations, which is a result of exposure to a particular feared object or situation. Exposure to this social situation results in an immediate anxiety response. This often leads an individual to avoid the situation, although sometimes it may be endured with fear. Diagnosis of this disorder is appropriate only if the fear of the social situation interferes considerably with the individual's daily routine, occupational functioning, or social life.

In obsessive-compulsive disorder (OCD) individuals feel compelled to think about something that they do not want to think about or to carry out some action, often pointlessly ritualistic, seemingly against their own will. These individuals, usually having high levels of manifest anxiety, realize that their behavior is irrational but cannot seem to control it. The DSM-IV diagnosis requires that this involuntary behavior causes marked distress to an individual, consume excessive time, or interfere with occupational or social functioning.

In post-traumatic stress disorder (PTSD), a person experiences a trauma that is out of the ordinary realm of human experience, such as the following: an actual or threatened death or serious injury, witnessing an event that involves death or an injury, or a threat to one's

physical integrity. The stressor is unusually severe and is psychologically traumatic. The traumatic event is persistently re-experienced by the individual accompanied by intense fear, helplessness, or horror. The individual persistently avoids stimuli associated with the trauma. The DSM-IV diagnosis requires that this behavior be present for more than one month, and the disturbance causes significant impairment in social or occupational functioning.

Generalized anxiety disorder is characterized by chronic excessive anxiety and worry that persists for at least six months and is confined to a single life circumstance. Individuals suffering from generalized anxiety disorder live in a constant state of tension, worry, and diffuse uneasiness. They are oversensitive in interpersonal relationship and frequently feel inadequate and depressed. Usually they have difficulty concentrating and making decisions. No matter how well things seem to be going, these individuals are always apprehensive and anxious.

Personality Disorders

Personality Disorders are also characterized as a mental illness. There are certain individuals who, although not necessarily displaying obvious symptoms of

disorder, nevertheless seem ill equipped to become fully functioning members of society. These people might be diagnosed as suffering from personality disorders.

Personality disorders typically result from the development of immature and distorted personality patterns, which result in persistently maladaptive ways of perceiving, thinking about, and relating to the world. These maladaptive approaches usually significantly impair functioning.

In the DSM-IV, the personality disorders are coded on a separate Axis II because they are regarded as being different from the standard psychiatric syndromes, which are coded on Axis I. Axis II represents long-standing personality traits that are inflexible and maladaptive and that cause social or occupational problems or personal distress. These traits are extremely resistant to modification, and are the most complex and challenging for treatment.

Personality disorders have a number of features that are predominant within all personality disorders. These include:

1. A pattern of disrupted personal relationships;
2. Long-standing behaviors that are considered troublesome by others;
3. A repetition of the same maladaptive behavior;

4. Often associated with negative life outcomes, such as addictive disorders and criminal or illegal behaviors; and
5. High resistant to change (Butcher, 1992, p. 266).

There are nine specific types of personality disorders that are classified according to the particular characteristics that are most prominent. These specific personality disorders include:

1. Paranoid personality disorder. A pattern of distrust and suspiciousness such that others' motives are interpreted as malevolent;
2. Schizoid personality disorder. A pattern of detachment from social relationships and a restricted range of emotional expression;
3. Schizotypal personality disorder. A pattern of acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior;
4. Antisocial personality disorder. A pattern of disregard for, and violation of, the rights of others;
5. Borderline personality disorder. A pattern of instability in interpersonal relationships, self-image, and affects, and marked impulsivity;

6. Histrionic personality disorder. A pattern of excessive emotionality and attention seeking;
7. Narcissistic personality disorder. A pattern of grandiosity, need for admiration, and a lack of empathy;
8. Avoidant personality disorder. A pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation; and
9. Dependent personality disorder. A pattern of submissive and clinging behavior related to an excessive need to be taken care of (DSM-IV, 1994, p. 629).

Substance-Related Disorders

Additionally, substance related disorders are referred to in the DSM-IV. Substance related disorders are characterized by the "taking of a drug of abuse (including alcohol), to the side effects of a medication, and to toxin exposure" (DSM-IV, 1994, p. 175). These substances are classified into eleven classes: (1) alcohol, (2) amphetamine or similarly acting sympathomimetics, (3) caffeine, (4) cannabis, (5) cocaine, (6) hallucinogens, (7) inhalants, (8) nicotine, (9) opioids, (10) phencyclidine (PCP) or similarly acting arylcyclohexylamines, and (11) sedatives, hypnotics, or anxiolytics.

A substance use disorder can be classified into two categories: substance abuse or substance dependence. Substance abuse involves a pathological use of a substance resulting in potentially harmful behavior, or in continued use despite maladaptive circumstances in a person's social, occupational, or psychological functioning. Substance dependence differs from substance abuse in that it involves a physiological need for a substance. An individual will show either an increased tolerance for a substance or withdrawal symptoms when the substance is unavailable, such as sweating, tremors, nausea, vomiting, and/or diarrhea. The necessary attribute of substance dependence is a "cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues use of the substance despite significant substance related problems" (DSM-IV, 1994, p. 176).

Treatment for Mental Illness

There are two approaches in providing treatment for psychiatric disorders; psychotropic medication and psychotherapy/counseling. Additionally, self-help programs, such as Alcoholics Anonymous, Narcotics Anonymous, and Cocaine Anonymous, can be helpful.

Family doctors and psychiatrists can provide medication that reduce or eliminate symptoms of mental

illness. For example, Thorazine and its pharmacological relatives tend to reduce many of the major symptoms of schizophrenia. Other Selective Seratonin Reuptake Inhibitors, such as Prozac, Paxil, and Welbutrin, can assist in reducing symptoms of depression.

Psychological therapy/counseling represents another treatment alternative. Usually treatment includes individual, group, family, and couple therapy, and is provided by trained and credentialed counselors, social workers, and psychologists. The primary goals of psychological therapy/counseling are changing thinking, feeling, or behavior to a higher level of functioning.

Self-help groups, such as Alcoholics Anonymous, Narcotics Anonymous, and Cocaine Anonymous, can also be very useful. These self-help groups are based on a twelve-step recovery process, which teach positive tools to live without alcohol or drugs. The primary purpose is to maintain abstinence and to carry the message to the addict who still suffers.

Mercer County Problem Description

This study was conducted at the Mercer County Jail, which is located in Mercer County, Pennsylvania. Mercer County is a county located in Northwest Pennsylvania along the corridors of Interstate Routes 79 and 80. It covers

672 square miles and is designated a mixed urban/rural county with a population of 122,254. The densest urban area is the Shenango Valley, which is a cluster of the small cities of Farrell, Sharon, Hermitage, and the boroughs of Sharpsville, Wheatland, and West Middlesex. Thirty-nine percent of the total county population and 82 percent of the total county minority population live in the Shenango Valley. The urban Youngstown-Warren, Ohio area is within 20 miles of the Shenango Valley.

The two contiguous cities of Sharon and Farrell have been described by recognized experts in the field of urban social problems as a microcosm of inner city Philadelphia (Frankenburg, 1997). This area is characterized by a similarly high concentration of violence, drug trafficking, drug abuse, and drug related criminal activity. Additionally, the proximity of Youngstown and the dissection of the county by two major interstate highways have increased the number of transient individuals with mental illness who have arrived at the doorstep of the County MH/MR Program (Frankenburg, 1997).

A Community Health Needs Assessment of Mercer County conducted by Tripp-Umbach and Associates in 1995 revealed significant data on community attitudes and behaviors related to mental health and substance abuse problems (Frankenburg, 1997). In the community survey, drugs and

alcohol were ranked third as the major health care problem in the community, ahead of cancer, heart disease, care for the aging population, and the cost of health insurance.

With regard to mental health and depression, 14 percent of households reported having someone who had been treated for depression or a mental health problem within the past five years, and 12 percent of households reported having someone currently suffering from depression. In households where someone was suffering from depression, other significant risk behaviors existed. For example, 16 percent responded that a member of that household had been the victim of violence, and 25 percent reported that a member of the household had a drug and/or alcohol problem.

The complex social and psychological dynamics of mental health and substance abuse problems presented by this community profile is intensified within the Mercer County Jail population. According to the Mercer County Intermediate Punishment Plan (IPP), the Judges, District Justices, District Attorney, Warden, and other leading figures in the local criminal justice system estimate that more than 80 percent of the offender population are involved in the legal system, either directly or indirectly, as a result of substance abuse. Additionally, the percentage of criminal cases being filed before the Court in recent years that charge drug or alcohol abuse as

the primary offense has consistently averaged more than 50 percent. When mental illness is factored in, the Warden estimates that nearly 90 percent of all jail inmates have a mental health and/or substance abuse problem.

Overview of Thesis

As the need for alternatives to incarceration for mentally ill persons has grown, the concept of case management has developed as a viable option. Since a large number of incarcerated individuals are diagnosed as suffering from a mental illness or a dual-diagnosis, that is a psychiatric diagnosis in combination with a substance abuse diagnosis, it is necessary to assess the need for forensic case management for these individuals.

A literature review is presented in the next chapter, which addresses the need for case management in the mentally ill population. In chapter Three, the design of the study, which specifies the sample and the methodology, is discussed. Chapter Four provides the analysis and findings of this study. Chapter Five presents conclusions, limitations of the study, and recommendations for future research.

CHAPTER II

LITERATURE REVIEW

An estimated 3.5 million Americans today suffer from the severest forms of brain disorders, schizophrenia and bipolar disorder (Regier, Narrow, Rae, Manderscheid, Locke, & Goodwin, 1993). According to the National Advisory Mental Health Council in 1998, an estimated 40 percent of these individuals, or 1.4 million people, are not receiving treatment. The consequences of non-treatment include homelessness, violence, and incarceration.

Economic factors and deinstitutionalization are the two leading causes of today's crisis situation. As a result of these factors, individuals with serious psychiatric disorders are sometimes released from psychiatric hospitals and end up in the streets or jails.

The Corrections System Serve as Surrogate Hospitals

In the mental health literature, the dual problems of mental illness and chemical abuse or dependency, hereafter referred to as dual diagnoses, have been reported in the range of 20 to 50 percent of the criminal justice population (Zimberg, 1993). The occurrence of dual diagnoses in the drug treatment literature ranges from 50

to 90 percent among drug and alcohol abusers admitted to outpatient treatment (Ross, Glaser, & Germanson, 1988), inpatient hospital programs (McLellan, Woody, Luborsky, O'Brien, & Druley, 1983), and residential therapeutic communities (Jainchill, 1994).

The concern for co-occurring mental health and addictive disorders among individuals within the criminal justice system has been increasing. The National Comorbidity Survey (Kessler, 1995) reported widespread prevalence of co-occurring mental illness and substance abuse in society. They estimated that 7.6 to 9.9 million Americans suffer from a dual-diagnosis within any given year (Kessler, 1995).

For over a decade, reports of criminal offenders showing evidence of mental illness in addition to alcohol and/or other substance abuse appears to be increasing (Ditton, 1999). The Justice Department's Bureau of Justice Statistics reported that an estimated 283,800 mentally ill offenders were incarcerated in the state and federal prisons and jails at midyear 1998, an additional 547,800 mentally ill people were on probation in the community (Ditton, 1999).

Ditton (1999) suggested that mental illness rates within the United State's correctional population, among people ages 15 through 54 years old, varied by type of

psychiatric condition, age, gender, and other demographic characteristics. Ditton's research concluded that an estimated 0.6 percent of males and 0.8 percent of females suffer at some point in their lives from schizophrenia or other psychoses, and 14.7 percent of males and 23.9 percent of females from an affective disorder, such as major depression and mania. The study also concluded that the rate of mental illness among incarcerated offenders to be at least double the comparable rates in the general population.

When compared with other inmates and probationers, the mentally ill inmates and probationers reported higher rates of prior physical and sexual abuse and higher rates of alcohol and drug abuse by a parent or guardian. Nearly a third of men and three-quarters of women reported that they had been physically or sexually abused in the past, and more than 40 percent of the mentally ill inmates said their parents had abused alcohol or drugs (Beck, 1998, p. 89).

Forty percent of mentally ill inmates reported that they were unemployed before their arrest, and 25 percent of mentally ill state inmates and 20 percent of mentally ill jail inmates stated that their primary source of income is a result of illegal activities (Ditton, 1999).

Inmates diagnosed with a mental illness were more likely than other inmates to have been under the influence

of alcohol or drugs at the time of their present offense (59 percent vs. 51 percent) and twice as likely to have been homeless in the 12 months prior to their incarceration (20 percent vs. 9 percent), (Ditton, 1999).

There are prominent levels of drug and alcohol dependence among the nation's jail inmates, according to a survey conducted by Wolf (1996). More than half of all convicted jail inmates reported having used drugs in the month before their offense, compared to 44 percent in 1989. Sixty-three percent of the convicted males used alcohol regularly, as did 50 percent of the females. Sixty percent were using drugs or alcohol or both at the time of the offense for which they were jailed.

Wolf (1996) also reported that there were prevalent factors among jail inmates which included: a substantial number of jail inmates were unemployed, grew up in single-parent homes, were children of substance-abusing parents of guardians or were sexually or physically abused themselves. Almost half of all inmates grew up in single-family homes and about 12 percent had lived in childhood homes without either parents. Almost a third said their parents or guardians had abused alcohol or drugs. Nearly half said a family member had been in jail or prison. Forty-eight percent of female jail inmates and 13 percent of male jail inmates report having been sexually or physically abused at

least once in their lives. 27 percent of the women and three percent of the men said they had been rape victims.

Homelessness is a common factor among mentally ill individuals. According to Burt and Cohen (1993), the number of homeless people in the United States on any week in 1993 was estimated to be between 601,000 and 687,000. Many of these people suffer from mental illness and substance abuse. Surveys of the homeless population have reported co-occurring mental illness and substance abuse disorders for one-third of the individuals (Fischer & Breakey, 1991). Rahav (1995) conducted a survey and concluded that over 80 percent of homeless men who had been recruited for placement in a community-based residential program were mentally ill and over 90 percent were substance abusers. The characteristics of this sample included: 81 percent non-White; 78 percent never married; mean age of 32; mean education of 11 years; 57 percent have attempted suicide; and 43 percent have been physically abused.

Persons with Dual Disorders

Many individuals are at a high risk of becoming addicted to alcohol and drugs, thus creating a dual diagnosis of mental illness and substance abuse. They

often do not have a support system of family and friends, and many of these individuals become homeless and involved in the criminal justice system. Dually diagnosed, homeless persons are very often severely dysfunctional and difficult to retain in treatment; thus they require a social network case management approach, which includes intensive case management (ICM).

Intensive case management is the procedure of assisting an individual in coordinating and arranging services within the community (Drake, Bebout, & Roach, 1993). It differs from the traditional role of case management in that it provides a network with ties within the community, clinical services, and contacts in time of emergencies (Drake, et al., 1993). Specific applications of the Intensive Case Manager are to provide a variety of network contacts designed to increase psychiatric and residential stability and to maintain abstinence from drugs and alcohol abuse. This may include assisting the individual in establishing relationships with support groups, such as Alcoholics Anonymous and Narcotics Anonymous, beginning psychiatric treatment and mental health counseling, and establishing a safe and secure place of residence.

Consequences of Non-Treatment

Suicide

Suicide is the number one cause of premature death among people with schizophrenia, with an estimated 10 percent to 13 percent killing themselves. Suicide is even more pervasive in individuals with bipolar disorder, with 15 percent to 17 percent taking their own lives (Swartz, Swanson, Hiday, Borum, Burns, & Wagner, 1998, p. 201). The extreme depression and psychoses that can result due to a lack of treatment are the usual causes of death in these cases. These suicide rates can be compared to the general population, which is approximately one percent (Regier et al., 1998).

Violence Issue for Untreated Psychiatric Disorders

Violent episodes by individuals with untreated schizophrenia and bipolar disorder have risen dramatically, now accounting for approximately 1,000 homicides committed annually in the United States. According to a 1994 Department of Justice, Bureau of Justice Statistics Report, 4.3 percent of homicides committed in 1993 were by people with a history of untreated mental illness. Recent studies have confirmed that the association between violence and untreated psychiatric disorders continues to be widespread. A 1992 study by Steadman found that 27 percent of patients

discharged from psychiatric hospitals had at least one violent act within four months of discharge. A 1998 MacArthur Foundation study found that people with psychiatric disorders committed twice as many acts of violence in the period immediately prior to their hospitalization, when they were not taking medication, compared with the post-hospitalization period when they were receiving assisted treatment. The study also showed a 50 percent reduction in rate of violence among those treated for their illness.

Homeless Mentally Ill

The homeless mentally ill have aroused concern both in the popular press and in the professional literature. Current estimates indicate that the mentally ill comprise approximately one third of the homeless population in general and some suggest the number is much higher (Torrey, 1988). If the conservative estimate of homeless people nationwide is 600,000, then the number of homeless mentally ill is about 200,000.

Active drug or alcohol use among dual diagnosed adults may create problems with violence and acting out. Many of these individuals have spent time being incarcerated, and there is a greater potential for aggressiveness, theft, impulsive acting out, and violence than with the chronic

mentally ill population in general (Kline, 1993). With strong links to parole/probation officers, judges, and other personnel within the criminal justice system, intensive case management will allow case managers to work with this group of the dually diagnosed. Stringent consequences for acting out, such as incarceration or hospitalization, when supported by the courts, can assist case managers in carrying out a plan of treatment.

Long-term substance use among the dually diagnosed negatively impacts on their capacity to accept and benefit from treatment. "Continued substance abuse can result in cognitive, verbal and perceptual deficits that disorganize dual diagnosis patients and impair their cognitive processing functions" (Kline, 1993, p. 250). Dually diagnosed adults, when first approached about treatment, may have difficulty understanding the treatment process and may require slow transition to treatment.

Dual diagnosed patients also may not consider abstinence an option that will produce rewards. "It is difficult to convince dual diagnosis patients of the benefits of abstinence when they continue to experience relief from negative symptoms of mental illness by taking drugs or drinking alcohol" (Kline, 1993, p. 251). Drug and alcohol use may also provide these individuals with their only opportunity for socialization.

Kline (1993) identifies a number of adaptations that case managers can make to best serve their dually diagnosed patients, which will increase the likelihood that these patients will successfully participate in treatment services:

1. Focus of dual diagnosis treatment must be long-term;
2. Tolerance of continued substance use and relapse;
3. Provision of on-going relapse prevention support;
4. Emphasis on clinical relationship; and
5. Network interventions (p. 192).

Case Management for the Mentally Ill

Under optimal conditions, all people are capable of change, even people who suffer from serious mental illness. With patient, supportive, skillful interventions, people with severe mental illness can make basic internal changes that result in improved interpersonal relations with others (Harris & Bergman, 1987), increased self sufficiency and mastery (Neligh & Kinzie, 1983), higher satisfaction with their lives (Lehman, Ward, & Linn, 1982), and greater stability in the community (Harris, 1989). To make significant changes in their lives, however, people with mental illnesses require special conditions and highly

specialized therapeutic interventions. From the perspective of the case management approach, "significant internal change in the structure of the personality can only occur within the context of a therapeutic relationship, and when the individual is stable and confident that survival needs will be met" (Harris & Bergman, 1993, p. 17).

The case management program is a service that provides direct and indirect services for individuals who suffer from a mental illness, substance dependence, or mental retardation. Direct services include accompanying an individual in the community and assisting with activities of daily living. Major responsibilities include independent assessment, monitoring, advocacy and follow-up for each individual.

Case management in the United States began in 1978 with the establishment of the Community Support Program (CSP), which developed as a result of the deinstitutionalization movement in the late fifties. Between the years of 1955 to 1980, the population of people in state mental hospitals was reduced from 558,992 to 175,000 (Division of Biometry, 1979). Unfortunately, as people were discharged from mental hospitals, they often faced despair as they returned to urban ghettos without the access to adequate housing and community services. In many

respects, these people faced a diminished quality of life from what they had known in the mental hospitals. The solution to this problem was the creation of the case management approach, whereby case managers assessed, planned, and linked individuals to mental health and substance abuse services.

The prominent objective of the case manager is to assist the patient attain stability at his or her best level of functioning in the community. Case managers help to provide good judgement for those patients who demonstrate poor judgement, e.g. making sure the patient pays the rent rather than buy a new wardrobe. The case manager must also limit the patient's self-damaging actions when the patient is unable to control his or her impulses, for example, working to limit violence, substance abuse, or unsafe sexual practices (Roach, 1993).

The case manager also assists in promoting the growth and development of the patient. According to Kanter (1988), this is accomplished in a three-fold process:

1. Creating an interpersonal and physical context that meets the patient's appropriate needs and protects him or her from excessive stress, chaos, and uncertainty;
2. The case manager teaches the patient, either directly or by providing opportunities for

learning such as psychosocial, day treatment, or educational programs; and

3. The case manager serves as a primary model for the patient who learns through imitation and identification (p. 364).

Strengths Model of Case Management

The purpose of case management in the "strengths model" is "to assist consumers in identifying, securing, and sustaining the range of resources-both environment and personal-needed to live, play, and work in a normally interdependent way in the community" (Rapp, 1993, p. 145). Case management is individually tailored to the unique needs of each person who is in need of services.

The "strengths model" is based on two basic assumptions about human behavior. First, people are successful in everyday life when they are capable of using and developing their own potential and when they have the access to resources they need to do this. The second assumption is that human behavior is largely a function of the resources available to the individual (Davidson & Rapp, 1976). Patients need the same resources as everyone else: employment, housing, education, health care, recreation, and supports. Thus, the case manager assists the dually

diagnosed individuals to gain access to those needed resources.

Six Principles of the "Strengths Perspective Model"

The strengths perspective of case management is based upon six principles (Rapp, 1993):

1. The focus is on individual strengths rather than pathology;
2. The case manager-client relationship is primary and essential;
3. Interventions are based on client self-determinations;
4. The community is viewed as an oasis of resources, not as an obstacle;
5. Aggressive outreach is the preferred mode of intervention; and
6. People suffering from severe mental illness can continue to learn, grow and change (p. 649).

Principle one states that the focus on individual strengths rather than pathology. This principle is based upon the assumption that people tend to develop and grow based on their individual interests, strengths, and goals. People tend to spend time doing what they enjoy and do well and avoid that which they do poorly. Based upon this assumption, the focus of case management should not be on

the symptomology, psychosis, problems or weaknesses. The work should focus on the accomplishments of the patients, the resources that are available to them, and the aspirations of the patient. The focus upon their individual strengths should also enhance one's motivation. The typical assessment process of focusing upon problems and weaknesses can damage or destroy a person's motivation. However, focusing upon the strengths and goals will have the opposite effect (Rapp, 1993).

Principle two emphasizes that the case manager-client relationship is primary and essential. The relationship between the case manager and the patient is fundamental, not only during the times of crisis or when a patient becomes depressed, anxious, or stressed, but during times when no problems are occurring. This ongoing relationship decreases the stress and helps to prevent the exacerbation of symptoms.

The third principle asserts interventions are based on client self-determination. The basis of the strengths perspective is that it is a patient's right to determine the direction of the case manager's help. Even a person with a serious mental illness is capable of self-determination. This principle supports the belief that a case manager should not do anything without the patient's

approval. The patient should be involved in all decisions, no matter how trivial.

Principle four of the strengths perspective is that the community is viewed as a resource and not an obstacle. In utilizing community resources, a case manager should emphasize the natural and normal resources and not just the resources available to people suffering from a mental illness. Case managers should only utilize specific mental health based services when natural community resources can not be utilized on behalf of the patient.

The fifth principle states that the aggressive outreach is the preferred mode of intervention. Case managers need to emphasize natural community service and can not do so in an office setting. They need to have an outreach approach, which occurs in community agencies, restaurants, businesses, etc., as well as in the patient's home. This offers opportunities for assessment and intervention in a natural setting.

People suffering from major mental illness can continue to learn, grow, and change is the focus of principle six. The primary belief of the strengths model is that individuals suffering from a mental illness have as many positive attributes that counterbalance the effects of their illness. In many instances, the mental health system has institutionalized low expectations of the mentally ill.

In contrast to this belief, a twenty-year follow-up study in Vermont has discovered that people suffering from mental illness can become productive citizens of the community. They can hold jobs, having families, friends, and own homes (Harding, Zubin, & Strauss, 1987). The belief is that any individual is able to better their life, with a little help.

Methods of the Strengths Model

The six principles of the strengths model have been the basis for the development of the specific methods that are utilized in case management. These six methods are as follows (Rapp, 1993):

1. Engagement: The first steps in the helping journey.

The focus of this stage is on relationship building. Engagement is viewed as a separate function in and of itself. It establishes the initial stage of relationship building that is so vital to any helping effort. According to Rapp (1993), the case manager's primary goals are: (a) to re-educate the patient regarding the case management process; (b) to describe how case management is helpful in realizing their own wants and needs; and (c) to create an atmosphere in which the patient and the case manager get to know each other as people and not just as workers.

2. The Strengths Assessment: Re-discovering personal and environmental potentials.

The goal of the strengths assessment is to produce a holistic depiction of the patient. Information regarding the patient is gathered concerning their residential, financial, vocational, health, leisure time, and social supports in order to obtain short- term goals. Assessment is always an ongoing process. Information regarding a person's life is gathered regularly. Because people are always changing and growing, assessment is never completed, rather it is dynamic and ongoing.

3. Personal Planning and Implementation: Accompanying clients on their journey.

Case management involves an active role in assisting a patient in accomplishing their goals. This may entail going to the welfare office, social security office, or to a doctor's appointment with the patient. These shared activities can provide an opportunity for teaching and counseling in the natural environment. "The case management objective is to provide each client with a sense of mastery and personal empowerment from which future independent behaviors may emerge" (Rapp, 1993, p. 155).

4. Sustaining Client Gains: Implementing the Three C's

The monitoring function of a case manager is an intensive process. This function is broken down into the

three C's: "collective, continuous, and collaborative" (Rapp, p. 156). In order to assist patients in sustaining gains, a collective of supports needs to be developed. Family members, friends, employers, AA and NA sponsors, therapists and others with whom the patient has contact can become a substantial supporting force for a person. The efforts of this support system must be continuous. Collaboration is the third part of the monitoring function. The case manager, patient, and the support system work together as collaborators, each recognizing the value of one another, as well as the benefits of helping the patient achieve his or her goals.

Advantages of the Strengths Model

There are several advantages of the strengths model of case management, according to Rapp (1993):

1. The model promotes a working partnership between patient and case manager;
2. It helps counteract the demoralization that case managers often feel. Case managers feel like partners with patients rather than adversaries;
3. It appears to work. Consistent positive findings indicate that the model reduces the incidence and length of hospitalization and increased

individual goal attainment, patient satisfaction, and quality of life; and

4. It appears to work across diagnosis, severity of illness, sex, race, and age (p. 967).

Disadvantages of the Strengths Model

Despite the advantages, the strengths model has been difficult. The traditional approach to case management, which focuses upon negative imagery, is still prevalent. Given this mind set, it is often difficult to implement the strengths model. Another disadvantage is that this model focuses upon individualization, treating patients and their environment as unique entities, thus, training for this model is more difficult, demanding constant assessment and creativity (Rapp, 1993).

Case Management upon Leaving Jails

Over the past decade there has been a significant increase in the number of mentally ill or dually diagnosed individuals who have been caught up in the criminal justice system (Whitmer, 1980). Research indicates that the move to community mental health instead of inpatient mental institutions has lead to the incarceration of mentally ill citizens (Abramson, 1972). Jails, particularly, have a

notable concentration of mentally ill individuals as inmates. This is because jails, as differentiated from prisons that house sentenced offenders, function also as processing centers. There is an indication in the literature that arresting and incarcerating individuals who suffer from a mental illness may be used as a control mechanism for their symptomatic behavior (Gibbs, 1982). For example, one study concluded that approximately 90 percent of new admissions to an urban county jail had a history of psychiatric hospitalization (Lamb & Grant, 1982).

Although there is much attention given to the treatment of mentally ill persons within the jail, limited work has been completed on the transition of jail detainees back into society (Griffen, 1990). Service needs for mentally ill inmates leaving jail include initiating psychiatric treatment, initiating mental health and/or substance abuse counseling, locating housing, looking for clothing and seeking sources of income. The characteristics of homelessness, mental illness, substance abuse, and jail tenure present obstacles in accomplishing these tasks (Bilder, Lipshutz-Broch, Reiter, Mayerhoff, & Liebermann, 1992).

Case management has been recommended as a service coordination strategy for people suffering from a mental

illness who are vulnerable to homelessness and who lack the knowledge and skills to utilize community service. It provides a single point of planning, monitoring, and accountability for services for seriously mentally ill or dually diagnosed individuals, and is thought to be beneficial for people leaving jail who are facing complex service needs (Chamberlain & Rapp, 1991).

Incarceration and Related Costs

Individuals who are untreated for their illness cost money by being incarcerated. For example, the Department of Justice Source Book on Criminal Justice Statistics (1996) estimates the total annual cost to be $8.5 billion (p. 304) for these illnesses in jails. This figure is based upon an estimated cost of $50,000 per mentally ill inmate per year, and 170,000 individuals with serious psychiatric disorders being incarcerated. Adding to this expense are court costs, police costs, social service costs, and emergency room costs. A study of schizophrenia in England concluded that "treatments which reduce the dependence and disability of those most severely affected by schizophrenia are likely to have a large effect on the total cost of the disease to society and may, therefore, be

cost-effective, even though they appear expensive initially" (Davies & Drummond, 1994, p. 19).

Summary of the Literature Review

There is a trend to use jails as a control mechanism for symptomatic behavior for mentally ill or dually diagnosed individuals (Teplin, 1991). The solution is to treat mentally ill inmates and to assist correctional systems to provide forensic case management services to this population upon release from incarceration. Specific steps can be taken at federal, state, local, and operational levels to facilitate the formal linking of case management with mentally ill or dually diagnosed offenders. The need is immediate and urgent, because the number of mentally ill individuals who are being incarcerated is expanding, and they are becoming a substantial group to be served.

CHAPTER III

METHODS AND DESIGN

This chapter provides an explanation of the research methodology used in the study to explore the need for forensic case management for psychiatrically diagnosed offenders being released from jail. This exploratory study is a modest attempt to show a relationship between the use of the "case management approach" and the reduction of re-incarceration rates of mentally ill inmates. The high recidivism and re-incarceration rates tax the resources of both human services and the criminal justice system. This is an expensive population to maintain, with a less-than-desirable expectation of outcome. An explanation of the design, sample, measurement tool, and the statistical methods used are presented in this chapter.

Sample and Setting

The study subjects were selected inmates, either pre-trial detainees or sentenced individuals, who were diagnosed as suffering from a mental illness. The mental illness was determined by the combination of information provided by the individual, by a psychiatrist, and the structured mental health exam performed by the jail mental health therapist. Those individuals with a psychiatric

diagnosis of depression, bipolar disorder, schizophrenia, psychosis not otherwise specified, or other diagnoses were included in this study. The study consisted of both men and women, having committed either felonies and/or misdemeanors.

After arrest, all people are assessed for physical and mental illness during the booking process. They are referred for a mental health evaluation if their behavior is considered bizarre, if they report being on psychotropic medication, or if they report suicidal or homicidal ideation. Mental health staff reviews relevant paperwork and interviews the detainees using a structured mental health exam.

This study was conducted at the Mercer County Jail (138 S. Diamond Street Mercer, Pa 16137). The capacity of this facility is 152 male and female inmates, which exceeds the optimum capacity of 114 individuals. The remainder of incarcerated individuals are housed in other county jails in the area. The Mercer County Jail serves as a criminal justice detention center for all of Mercer County.

Measures

A review of inmate files was conducted to obtain needed information. The sample was selected by examining the records of all psychiatrically diagnosed individuals

who have been incarcerated in the Mercer County Jail, Pennsylvania between April 1998 through April 1999. The total number of incarcerated inmates in this time period was 2,139 individuals. Of these 2,139 individuals, 140 (6.54%) persons were diagnosed by a psychiatrist or a psychologist as suffering from a mental illness or a dual diagnosis. Information was gathered from psychiatric evaluations, psychological evaluations, mental health assessments, drug and alcohol evaluations, jail commitment forms, and Pre-Sentence Investigation Reports.

The Warden of the Mercer County Jail and the President Judge of the Mercer County Courts were contacted to obtain written consent to review both jail records and court records. See Appendix A.

Data collection forms were developed for this study. Major areas of data collection were demographic information, such as information concerning the arrest and re-arrest, psychiatric information, and previous criminal history. The data came from two sources: the criminal record of the individual and the medical record kept by jail personnel. Appendix A presents the value and label for all variables collected in this study.

Variables

The methodology for this study involves identifying variables through analysis of the mentally ill individuals who were incarcerated in the county jail. Statistical tests were conducted to determine if there were significant relationships between such key variables as gender, marital status, employment, abuse history, alcohol and drug use, psychiatric diagnoses, mental health treatment, substance abuse treatment, criminal history, and the assistance of a support system.

Analysis

Evaluative research methods were used to assess the need for forensic case management for psychiatrically diagnosed inmates upon leaving jail, based upon descriptive statistics. These procedures are justified because the sample can be divided according to attributes. Data analysis sought to examine the interrelationships between two or more characteristics to determine, not merely whether a statistical relationship exists, but also to assess what the strength of that relationship was.

Chi-square analysis was determined to be the appropriate test, because this study is examining differences in nominal data. Chi-square analysis can determine if there is a relationship between two or among

more than two nominal level variables. According to Champion (1993), three assumptions can be made regarding the proper application of the chi-square test: (1) randomness, (2) the nominal level of measurement, and (3) a sample size equal to 25 or larger (p. 445). In fact, the best sample size for this statistical test has been determined to be from 25 to 250. The present study meets these parameters.

The chi-square analysis determines if relationships between the dependent variable, the assistance of a support system, and the dependent variables are statistically significant at the .05 probability level or greater.

Predicting significant relationships between key variables such as gender, marital status, employment, abuse history, alcohol and drug use, psychiatric diagnoses, mental health treatment, and substance abuse treatment were tested for statistical significance. All data was analyzed using the Statistical Package for the Social Sciences (SPSS).

Once significance levels were identified and calculated it was the aim of this study to arrive at variables that explain similarities and differences that could provide answers as to why there is a need for forensic case management for psychiatrically diagnosed

individuals upon leaving jail. Chapter 4 reports the findings by applying the above-described methodologies.

Summary

In this chapter, research methodologies were used to illustrate the need for forensic case management for psychiatrically diagnosed offenders upon leaving jail. If the "case management approach" is utilized for these individuals, the recidivism rate can be predicted to decline.

Chapter Four provides the statistical analysis and relevant findings of the collected data. The significance of these findings are reported and discussed. The last chapter presents the conclusion and implications of the study. Recommendations for future research are proposed.

CHAPTER IV

ANALYSIS AND FINDINGS

The primary purpose of this study was to submit a method to facilitate decisions regarding the need for forensic case management for psychiatrically diagnosed criminal offenders upon leaving jail. With few exceptions, the variables that emerged as predictors are consistent with those reported in the literature.

To facilitate the examination of the data, the findings are organized and reviewed categorically. First, a descriptive analysis of the sample is presented. These descriptive statistics supply information such as the number of cases that fall into each category of the variables.

Second, the results are analyzed using chi-square statistics. The chi-square analysis provides basic distributional characteristics that examine relationships between the variables. Also, statistical significance to establish the importance of the difference or association is provided. These categorical divisions provide a meaningful way of examining the data.

Descriptive Analysis of the Sample

The study includes 113 males (81%) and 27 females (19%). See Table 1. The mean educational level was seventh grade, pre-high school. Fifty-three percent did not graduate from high school, 34 percent were high school graduates, 10 percent had a GED diploma, and three percent were college graduates.

The ethnic composition of this sample was 72 percent Caucasian (n = 101) and 28 percent were African American (n = 39). In regard to marital status, 8.6 percent were married, 62.1 percent had never been married, 27.1 percent were divorced or separated, and 2.1 percent were widowed. Thirty-one percent of the sample lived alone, while 69 percent resided with another person. Of the individuals that lived alone, 19 percent of the total sample population stated that they were homeless. Thirty-six percent of the subject population did not have a support system, leaving 64 percent who had a support system of one or more persons.

Self-report indicated that alcohol was a problem in 23% of the sample, 19 percent have a drug problem, and 54 percent have both an alcohol and drug problem. Forty-five percent of the sample has suffered from emotional,

physical, and/or sexual abuse in their lives. Only twenty-eight percent were employed, leaving 72 percent unemployed.

Table 1
Descriptive Statistics of Individuals in Study

Variable	Percent
Gender	
Male	81%
Female	19%
Race	
Caucasian	72%
African American	28%
Religion	
Christian	90%
Other	10%
Marital Status	
Yes	9%
No	91%
Reside with Someone	
Yes	69%
No	31%
Chronic Medical Problems	
Yes	28%
No	72%
Obtained High School Diploma or GED	
Yes	47%
No	53%
Number of people in support system	
One or more	64%
None	36%
Victim of Emotional/Verbal/Sexual Abuse	
Yes	55%
No	45%
Currently Employed	
Yes	28%
No	72%
Currently Homeless	
Yes	19%
No	81%
Family History	
Alcohol and/or Drug abuse	51%
Mental Illness	.8%
Dual Diagnoses	14%

The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) is the most used classification scheme for mental disorders in the United States. The DSM-IV evaluates an individual's behavior according to five dimensions, or axes. The first axis, Axis I, diagnoses a person's particular maladaptive symptoms, or clinical psychiatric syndromes, such as schizophrenia.

In regards to Axis I psychiatric diagnosis, 39 percent of the sample are diagnosed as suffering from depression, 20 percent are diagnosed as suffering from bipolar disorder, and nine percent are diagnosed as suffering from schizophrenia. Additionally, nine percent were diagnosed as having a diagnosis of psychosis not otherwise specified, and 19 percent were diagnosed as suffering from other Axis I diagnoses, such as Post-Traumatic Stress Syndrome.

Axis II diagnoses were also considered in this study. In the Diagnostic and Statistical Manual IV, the personality disorders are coded on a separate Axis II, because they are regarded as being different enough from the standard psychiatric syndromes, which are coded on Axis I, to warrant separate classification. Axis II represents long-standing personality traits that are inflexible and

maladaptive and that cause social or occupational adjustment problems or personal distress. Personality disorders are chiefly, although not exclusively, characterized by problems in which individuals typically cause at least as much difficulty in the lives of others as in their own lives. The disorders to be examined here stem largely from the development of immature and distorted personality patterns, which result in persistently maladaptive ways of perceiving, thinking about, and relating to the world (Butcher, 1992).

Forty-six percent of the subject population were diagnosed as suffering from antisocial personality disorder, 17 percent are diagnosed with intermittent explosive disorder, and five percent are diagnosed as suffering from borderline personality disorder. Furthermore, one percent of the sample population had a psychiatric diagnosis of paranoid personality disorder, four percent were suffering from attention deficit disorder, and two percent were determined to be mentally retarded. Another 13 percent of the sample were determined to be suffering from a personality disorder not otherwise specified.

Despite the psychiatric diagnoses, only 9.3% (N = 13) were currently involved in mental health counseling prior to their incarceration.

Table 2
Descriptive Statistics of Individuals in Study

Variable	Percent
Axis I Diagnoses	
Depression	39%
Bipolar	20%
Schizophrenia	9%
Psychosis NOS	9%
Adjustment Disorder	9%
Other	11%
None	2%
Axis II Diagnoses	
Antisocial Personality Disorder	48%
Intermittent Explosive Personality	17%
Paranoid Personality Disorder	1%
Personality Disorder NOS	13%
Borderline Personality Disorder	5%
Other	1%
None	13%
Substance Related Diagnosis	
Yes	82%
No	18%
Past Suicide Attempts	
Yes	60%
No	40%
Mental Health Treatment prior to Jail	
Yes	9%
No	91%
Substance Abuse Treatment prior to Jail	
Yes	1%
No	99%

Comparative Analysis

Examination of the results indicated that seven of the variables were statistically significant at the .05 level when evaluating the need for a forensic case manager. Each of the seven variables was dummy coded and a chi-square analysis was performed in order to examine the relationship between the variables. The independent variable, who the individual resides with, was found to be significantly related with the presence of a support system and the number of people in the support system.

The variable, whether there was the existence of a support system of at least one person, was found to be significantly related with the following: a family history of substance abuse and/or mental illness, whether the individual was a victim of emotional, physical, and/or sexual abuse, and homelessness. Also, the presence of a support system was found to be significantly related to past inpatient substance abuse treatment, and the future need for inpatient mental health treatment and outpatient psychiatric treatment.

Past family problems was significantly related to homelessness, under the influence of a substance during the commission of his/her crime, choice of substance abuse,

whether an individual is diagnosed as suffering from a substance abuse diagnoses, and the availability of a support system for the individual.

The attainment of a high school diploma or GED was found to relate significantly with the number of people in the support system and an individual's marital status.

Correlating with having a psychiatric Axis I diagnoses was the following: who the individual resides with, homelessness, whether an individual has had past inpatient mental health treatment, whether an individual is in need of inpatient mental health treatment, if the person is in need of outpatient psychiatric treatment, past suicide attempts, prescribed psychotropic medication, having a substance abuse diagnosis, and one's employment status.

Past inpatient/outpatient mental health treatment related significantly with the following: gender, chronic medical problems, psychotropic medication, having an Axis I diagnosis, past suicide attempts, whether an individual is currently involved with mental health treatment, the need for inpatient and/or outpatient mental health treatment, past inpatient substance abuse treatment, past outpatient substance abuse treatment, and employment status.

A significant relationship was discovered to exist with the independent variable of past inpatient/outpatient substance abuse treatment in relationship to whether an individual had past inpatient an/or outpatient mental health treatment, psychotropic medication, homelessness, arrested under the influence, and a person using alcohol and/or drugs continually in past one year.

Reside With Whom

Individuals who report that they reside either alone (N = 31, 70.5%) or with their children only (N = 6, 50.0%) report that they do not have a support system. If they resided with anyone other than their children (parents, other family members, significant other, or significant other and children) they reported that they do have a support system ($\chi^2 = 47.19$, $p \leq .005$). See Table 3.

Female inmates primarily reported that they reside either with their parent(s) or with their children. However, males state that they reside with either family members other than their parent(s), with their significant other, with their significant other and children, or alone. See Table 4.

Table 3
Significant Difference Between Who a Person Resides With and the Presence of a Support System

HAS SUPPORT SYSTEM	WHO THEY RESIDE WITH						
	Parent(s) (N = 32)	Other Family Members (N = 11)	Signifi-Cant Other (N = 23)	Children (N = 12)	Signifi-cant Other & Children (N = 18)	Alone (N = 44)	Total (N = 140)
NO	18.8% (N = 6)	9.1% (N = 1)	26.1% (N = 6)	50.0% (N = 6)	5.6% (N = 1)	70.5% (N = 31)	36.4% (N = 51)
YES	81.2% (N = 26)	90.9% (N = 10)	73.9% (N = 17)	50.0% (N = 6)	94.4% (N = 17)	29.5% (N = 13)	63.6% (N = 89)
$\chi^2 = 47.195\ p \leq .005$							

Table 4
Significant Difference Between Who a Person Resides With and Gender

GENDER	WHO THEY RESIDE WITH						
	Parent (s) (N = 32)	Other Family Member (N = 11)	Significant Other (N = 23)	Children Only (N = 12)	Significant Other & Children (N = 18)	Alone (N = 44)	Total (N = 140)
MALE	78.1% (N = 25)	100.0% (N = 11)	82.6% (N = 19)	25.0% (N = 3)	83.3% (N = 15)	90.9% (N = 40)	80.7% (N = 113)
FEMALE	21.9% (N = 7)	0.0% (N = 0)	17.4% (N = 4)	75.0% (N = 9)	16.7% (N = 3)	9.1% (N = 4)	19.3% (N = 27)
$\chi^2 = 51.061,\ p \leq .005$							

Another statistic that is significantly related with who one resides with is whether an individual is currently employed ($\chi^2 = 21.218$, $p \leq .047$). Individuals who reside either alone, alone with their children, or with other family members tend to be unemployed. Those individuals who reside with their parent(s), significant other, or with one's significant other and children are more likely to be employed. See Table 5.

Table 5
Significant Difference Between Who a Person Resides With and Whether an individual is Currently Employed

EMPLOYMENT STATUS AT TIME OF ARREST	WHO THEY RESIDE WITH						
	Parent (s) (N = 32)	Other Family Members (N = 11)	Significant Other (N = 23)	Children Only (N = 12)	Significant Other & Children (N = 18)	Alone (N = 44)	Total (N= 140)
YES	31.3% (N = 10)	27.3% (N = 3)	39.1% (N = 9)	25.0% (N = 3)	50.0% (N = 9)	11.4% (N = 5)	27.9% (N = 39)
NO	68.7% (N = 22)	72.7% (N = 8)	60.9% (N = 14)	75.0% (N = 9)	50.0% (N = 9)	88.6 (N = 39)	72.1% (N = 101)
$\chi^2 = 21.218$, $p \leq .047$							

Existence of a Support System

This variable was categorized as either having a support system of at least one person or not having a

support system at all. A family history of substance abuse or mental illness/dual diagnosis significantly related with the existence of a support system. The individuals who reported that there was a family history of alcohol and/or drug abuse were more likely to not have a support system. In contrast, those inmates who reported that there was a mental illness/dual diagnosis within their family were more likely to have a support system of at least one person. In conclusion, families with a family history of mental illness/dual diagnosis were more likely to be supportive than a family with a history of substance abuse (χ^2 = 16.547, $p \leq .005$). See Table 6.

Table 6
Significant Difference Between Presence of a Support System of at least One Person and Family History

FAMILY HISTORY OF	PRESENCE OF A SUPPORT SYSTEM OF AT LEAST ONE PERSON		
	No Support System (N = 45)	Has a Support System (N = 81)	Total (N = 126)
ALCOHOL AND/OR DRUG ABUSE	73.3% (N = 33)	38.3% (N = 31)	50.8% (N = 64)
MENTAL ILLNESS/DUAL DIAGNOSIS	11.1% (N = 5)	16.0% (N = 13)	14.3% (N = 18)
NONE	15.6% (N = 7)	45.7% (N = 37)	34.9% (N = 44)
$\chi^2 = 16.547, p \leq .005$			

Abuse issues are frequently reported by inmates. Emotional, physical, or a combination of emotional, physical, and sexual abuse occurs more often to individuals who do not have a support system (N = 26, 53.1%). However, those who admitted that they were a victim of sexual abuse alone or no abuse at all reported a support system of at least one person (N = 54, 62.3%). See Table 7.

Table 7

Significant Difference Between Presence of a Support System of at least One Person and Type of Abuse

TYPE OF ABUSE	PRESENCE OF A SUPPORT SYSTEM OF AT LEASE ONE PERSON		
	No Support System (N = 49)	Has a Support System (N = 85)	Total (N = 134)
EMOTIONAL	8.2% (N = 4)	2.4% (N = 2)	4.5% (N = 6)
PHYSICAL	10.2% (N = 5)	20.0% (N = 17)	16.4% (N = 22)
SEXUAL	0.0% (N = 0)	3.5% (N = 4)	3.0% (N = 4)
ALL THREE	34.7% (N = 17)	14.1% (N = 12)	24.6% (N = 29)
NONE	46.9% (N = 23)	58.8% (N = 50)	54.5% (N = 73)
$\chi^2 = 14.920, p \leq .021$			

The presence of a support system was found to relate significantly with past inpatient substance abuse treatment. Inmates who have had past inpatient substance

abuse treatment (N = 24, 47.1%) were more likely to report that they did not have a support system. In contrast, those individuals who reported that they had a support system of at least one person never had past inpatient substance abuse treatment (N = 64, 71.9%). Thus, if a person does not have a support system they are more likely to have had past inpatient substance abuse treatment (χ^2 = 5.128, $p \leq .019$).

In addition to past inpatient substance abuse treatment, it was discovered that individuals who do not have a support system are more likely to also need inpatient mental health treatment (N = 31, 60.8%) compared to those with a support system who do not need inpatient mental health treatment (N = 61, 68.5%). Therefore, people with a support system are less likely to need inpatient mental health treatment (χ^2 = 11.434, $p \leq .001$). Additionally, psychiatric treatment is also needed for the individuals who do not have a support system (N = 49,96.1%), as compared to those who have a support system of at least one person who do not need psychiatric treatment (N = 14, 15.7%) (χ^2 = 4.466, $p \leq .028$).

Past Family Problems

There are many family problems reported by the inmate population as they were growing up. In an effort to determine these past problems or current behaviors/problems, chi-square tests were conducted. One problem that was found to relate was homelessness. Inmates who reported being homeless had a family history problem of substance abuse (N = 17, 27%). Mental illness in the home did not indicate current homelessness. See Table 7. These results were found to be statistically significant (χ^2 = 9.463, $p \leq .05$). When inmates reported past homelessness, the same pattern emerged (χ^2 = 14.004, $p \leq .003$). See Table 8.

Table 8
Significant Difference Between Past Family Problems and Currently Homelessness

CURRENTLY HOMELESS	FAMILY HISTORY OF SUBSTANCE ABUSE AND/OR MENTAL ILLNESS			
	Substance Abuse (N=63)	Mental Illness/ Dual Diagnosis (N=18)	None (N=44)	Total (N=125)
YES	27.0% (N=17)	5.6% (N=1)	6.8% (N=3)	16.8% (N=21)
NO	73.0% (N=46)	94.4% (N=17)	93.2% (N=41)	83.2% (N=104)
$\chi^2 = 9.463$, $p \leq .05$				

Inmates whose parents were more likely to be married deny any family history of substance abuse or mental

illness/dual diagnosis (N = 29, 65.9%). Table 9 depicts that when inmates reported any family problems then the parents were more likely to be divorced or separated. Inmates who reported substance abuse were more likely to report being raised by a single parent. In cases where the child was raised outside of the home (children and youth services or foster care), there was a report of mental illness/dual diagnosis in the family (χ^2 = 32.632, p $\leq$ .001).

Table 9
Significant Difference Between Past Family Problems and Family Background

FAMILY BACKGROUND	FAMILY HISTORY OF SUBSTANCE ABUSE AND/OR MENTAL ILLNESS			
	Substance Abuse (N=64)	Mental Illness/ Dual Diagnosis (N=18)	None (N=44)	Total (N=126)
PARENTS MARRIED	21.9% (N=14)	22.2% (N=4)	65.9% (N=29)	37.3% (N=47)
PARENTS DIVORCED/ SEPARATED	34.4% (N=22)	38.9% (N=7)	18.2% (N=8)	29.4% (N=37)
RAISED SINGLE PARENT	28.1% (N=18)	11.1% (N=2)	13.6% (N=6)	20.6% (N=26)
RAISED OTHER THAN PARENT	3.1% (N=2)	5.6% (N=1)	2.3% (N=1)	3.2% (N=4)
C.Y.S./FOSTER CARE	12.5% (N=8)	22.2% (N=4)	0.0%	9.5% (N=12)
χ^2 = 32.632, p $\leq$ .001				

When an inmate was arrested while under the influence of a substance during his/her crime, they reported a family

history of drugs or dual diagnosis. If they were not under the influence then they reported no past family problems (χ^2 = 9.389, p $\leq$ .009). See Table 10.

Table 10
Significant Difference Between Past Family Problems and Under the Influence of a Substance During Crime

UNDER THE INFLUENCE OF A SUBSTANCE DURING CRIME	FAMILY HISTORY OF SUBSTANCE ABUSE AND/OR MENTAL ILLNESS			
	Substance Abuse (N=20)	Mental Illness/ Dual Diagnosis (N=9)	None (N=19)	Total (N=31)
YES	7.0% (N=14)	100.0% (N=9)	42.1% (N=8)	64.6% (N=31)
NO	30.0% (N=6)	0.0%	57.9% (N=11)	35.4% (N=17)
$\chi^2 = 9.389,\ p \leq .009$				

Abused substance of choice was also related with past family problems (χ^2 = 40.151, p $\leq$ .002). As shown in Table 11, the majority of inmates who abuse alcohol reported no past problem of substance abuse or mental illness in their family's history. Marijuana and cocaine abusers reported mental illness/dual diagnosis problems in their family. Those who abused both alcohol and drugs reported multiple family problems.

If the inmate reports that they suffer from a substance abuse diagnosis, then they report multiple family problems. If they reported no substance abuse in their

life, then the inmate reports no past history of family substance abuse and/or mental illness (χ^2 = 17.62, $p \leq .001$). See Table 12.

Table 11
Significant Difference Between Past Family Problems and Primary Drug of Choice

PRIMARY SUBSTANCE OF CHOICE	FAMILY HISTORY OF SUBSTANCE ABUSE AND/OR MENTAL ILLNESS			
	Substance Abuse (N=64)	Mental Illness/ Dual Diagnosis (N=18)	None (N=44)	Total (N=126)
ALCOHOL	15.6% (N=10)	0.0% (N = 0)	40.9% (N=18)	22.2% (N=28)
MARIJUANA	3.1% (N=2)	16.7% (N=3)	0.0% (N = 0)	4.0% (N=5)
COCAINE	7.8% (N=5)	16.7% (N=3)	6.8% (N=3)	8.7% (N=11)
AlCOHOL AND DRUGS	64.1% (N=41)	61.1% (N=11)	36.4% (N=16)	54.0% (N=68)
$\chi^2 = 40.151$, $p \leq .002$				

Table 12
Significant Difference Between Past Family Problems and Substance Abuse Diagnosis

SUBSTANCE ABUSE DIAGNOSIS	FAMILY HISTORY OF SUBSTANCE ABUSE AND/OR MENTAL ILLNESS			
	Substance Abuse (N=64)	Mental Illness/ Dual Diagnosis (N=18)	None (N=44)	Total (N=126)
YES	90.6% (N=58)	100.0% (N=18)	63.6% (N=28)	82.5% (N=104)
NO	9.4% (N=6)	0.0% (N = 0)	36.4% (N=16)	17.5% (N=22)
$\chi^2 = 17.621$, $p < .001$				

Educational Attainment of High School Diploma or GED

The education variable was divided into whether an individual attained their high school diploma or GED and those who did not. Table 13 depicts the following: 52.9 percent did not graduate from high school while 47.1 percent did have a high school degree GED equivalent (those individuals who had some college or a college degree were included with the individuals groped together as having their high school diploma or GED.

Those persons who obtained their high school diploma or GED equivalent had a support system. Therefore, those who did not attain their high school diploma or GED equivalent did not have a support system at all. Table 13 illustrates that those inmates had a support system of at least two people were more likely to have their high school diploma (χ^2 = 10.112, $p \leq .018$).

If inmates had never been married, they were more likely to have not obtained their high school diploma (N = 55, 74.3%), compared to those that were either married, widowed, or separated/divorced (N = 66, 47.1%). See Table 14.

Table 13

Significant Difference Between Attainment of High School Diploma or GED and Number of People in Support System

NUMBER OF PEOPLE IN THEIR SUPPORT SYSTEM	ATTAINMENT OF HIGH SCHOOL DIPLOMA OR GED BY INMATE		
	Yes (N = 66)	NO (N = 74)	Total (N = 140)
ONE	40.9% (N = 27)	44.6% (N = 33)	42.9% (N = 60)
TWO	24.2% (N = 16)	6.8% (N = 5)	15.0% (N = 21)
THREE	6.1% (N = 4)	5.4% (N = 4)	5.7% (N = 8)
NONE	28.8% (N = 19)	43.2% (N = 32)	36.4% (N = 51)
$\chi^2 = 9.249$, $p \leq .026$			

Table 14

Significant Difference Between Attainment of High School Diploma or GED and Marital Status

MARITAL STATUS	ATTAINMENT OF HIGH SCHOOL DIPLOMA OR GED		
	Yes (N = 66)	NO (N = 74)	Total (N = 140)
MARRIED/ COHABITATING	10.6% (N = 7)	6.8% (N = 5)	8.6% (N = 12)
SEPARATED/ DIVORCED	37.9% (N = 25)	17.6% (N = 13)	27.1% (N = 38)
WIDOWED	3.0% (N = 2)	1.4% (N = 1)	2.1% (N = 3)
NEVER BEEN MARRIED	48.5% (N = 32)	74.3% (N = 55)	62.1% (N = 87)
$\chi^2 = 10.112$, $p \leq .018$			

Axis I Psychiatric Diagnoses

Inmates who are diagnosed as suffering from bipolar disorder(N = 11, 39.3%), or schizophrenia (N = 8, 61.5%), tend to live alone. Those who are diagnosed as suffering from depression (N = 3970.9%), psychosis not otherwise specified (N = 11, 84.6%), or other axis I diagnoses (N = 24,85.7%) are more likely to live with someone (χ^2 = 15.661, $p \leq .005$). Furthermore, those persons who are diagnosed as suffering from either depression (N = 20, 47.6%), bipolar disorder (N = 11, 50.0%), or schizophrenia (N = 9, 75.0%) report that they have been homeless at some time in their lives (χ^2 = 13.304, $p \leq .038$).

Persons diagnosed as suffering from depression, bipolar disorder, or schizophrenia were more likely to have had past inpatient mental health treatment than those individuals suffering from psychosis not otherwise specified, other axis I diagnoses, or no Axis I diagnoses (χ^2 = 37.920, $p \leq .005$). They are also more likely to need inpatient mental health treatment once released from incarceration (χ^2 = 28.811, $p \leq .000$). All individuals who are diagnosed with an Axis I diagnoses of depression, bipolar disorder, schizophrenia, or psychosis not otherwise

specified are in need of outpatient psychiatric treatment (χ^2 = 59.976, p $\leq$ .005).

Those individuals who suffer from depression, bipolar disorder, or schizophrenia have a higher rate of suicide attempts than individuals suffering from psychosis not otherwise specified, other axis I diagnoses, or no Axis I diagnoses (χ^2 = 34.434, p $\leq$ .005).

Individuals who are diagnosed with depression, bipolar disorder, or schizophrenia disorders are on psychotropic medication in order to treat their mental illness. See Table 15.

Table 15
Significant Difference Between Axis I Diagnosis And Current Psychotropic Medication

CURRENT PSYCH MEDS	AXIS I PSYCHIATRIC DIAGNOSES					
	Depression (N = 55)	Bipolar Disorder (N = 28)	Schizo-phrenia (N = 13)	Psychosis NOS (N = 13)	Other (N = 31)	Total (N = 140)
YES	74.5% (N = 41)	92.9% (N = 26)	84.6% (N = 11)	69.2% (N = 9)	45.2% (N = 14)	72.1% (N = 101)
NO	25.5% (N = 14)	7.1% (N = 2)	15.4% (N = 2)	30.8% (N = 4)	54.8% (N = 17)	27.9% (N = 39)
χ^2 = 28.743, p $\leq$ .005						

The inmates who reported that they had a substance abuse diagnosis were more likely to also have an Axis I diagnoses of depression, bipolar disorder, psychosis not otherwise specified, or no Axis I diagnoses at all (χ^2 = 16.413, p $\leq$ .012). See Table 16.

Table 16
Significant Difference Between Axis I Diagnosis And Substance Abuse Diagnosis

SUBSTANCE ABUSE DIAGNOSIS	AXIS I PSYCHIATRIC DIAGNOSES						
	Depression (N = 55)	Bipolar Disorder (N = 28)	Schizo-phrenia (N = 13)	Psychosis NOS (N = 13)	Other (N = 28)	None (N = 3)	Total (N = 140)
YES	89.1% (N = 49)	85.7% (N = 24)	76.9% (N = 10)	84.6% (N = 11)	64.3% (N = 18)	100.0% (N = 3)	82.1% (N = 115)
NO	10.9% (N = 6)	14.3% (N = 4)	23.1% (N = 3)	15.4% (N = 2)	35.7% (N = 10)	0.0%	17.9% (N = 25)
$\chi 2$ = 16.413, p $\leq$ .012							

Individuals who are diagnosed as suffering from depression, bipolar disorder, or schizophrenia are less likely to be employed (χ^2 = 15.992, p $\leq$ .014), compared to those persons diagnosed as suffering from psychosis not otherwise specified or some other form of psychosis. See Table 17.

Table 17
Significant Difference Between Axis I Diagnosis And Current Employment

EM-PLOYED	AXIS I PSYCHIATRIC DIAGNOSES						
	Depression (N = 55)	Bipolar Disorder (N = 28)	Schizo-phrenia (N = 13)	Psychosis NOS (N = 13)	Other (N = 28)	None (N = 3)	Total (N = 140)
YES	21.8% (N = 12)	25.0% (N = 7)	0.0%	30.8% (N = 4)	50.0% (N = 14)	66.7% (N = 2)	27.9% (N = 39)
NO	78.2% (N = 43)	75.0% (N = 21)	100.0% (N = 13)	69.2% (N = 9)	50.0% (N = 14)	33.3% (N = 1)	72.1% (N = 101)
$\chi^2 = 15.992, p \leq .014$							

Persons suffering from depression are more likely to either have a part-time job (N = 12, 21.8%) or be unemployed (N = 23, 41.9%). Persons suffering from bipolar disorder are more likely to be either employed full-time (N = 6, 21.4%), incarcerated (N = 2, 7.1%), or to sell drugs (N = 7, 25.0%). Those individuals diagnosed with schizophrenia are either unemployed (N = 9, 69.2%) or sell drugs (N = 4, 30.8%). Persons with a psychosis not otherwise specified diagnosis report that they are employed part-time (N = 2, 15.4%) or they sell drugs (N = 4, 30.8%). People suffering from other Axis I diagnoses are more likely to be employed full time (N = 13, 46.4%). Persons

that do not have a psychiatric diagnosis are either employed full time (N = 2, 66.7%) or incarcerated (N = 1, 33.3%). See Table 18.

Table 18
Significant Difference Between Axis I Diagnosis And Employment Pattern

EMPLOYMENT PATTERN	AXIS I PSYCHIATRIC DIAGNOSES						
	Depression (N = 55)	Bipolar Disorder (N = 28)	Schizo-phrenia (N = 13)	Psychosis NOS (N = 13)	Other (N = 28)	None (N = 3)	Total (N = 140)
FULL-TIME	10.9% (N=6)	21.4% (N=6)	0.0%	15.4% (N=2)	46.4% (N=13)	66.7% (N=2)	20.7% (N=29)
PART-TIME	21.8% (N=12)	10.7% (N=3)	0.0%	15.4% (N=2)	3.6% (N=1)	0.0%	12.9% (N=18)
UNEMPLOYED	41.9% (N=23)	35.8% (N=10)	69.2% (N=9)	38.4% (N=5)	32.1% (N=9)	0.0%	39.9% (N=56)
INCARERATED	3.6% (N=2)	7.1% (N=2)	0.0%	0.0%	0.0%	33.3% (N=1)	3.6% (N=5)
SELLS DRUGS	21.8% (N=12)	25.0% (N=7)	30.8% (N=4)	30.8% (N=4)	17.9% (N=5)	0.0%	22.9% (N=32)
$\chi^2 = 15.992$, $p \leq .014$							

Past Inpatient or Outpatient Mental Health Treatment

Individuals who report past inpatient or outpatient mental health treatment are more likely to be female (N = 24, 25.5%) than male ($\chi^2 = 7.170$, $p \leq .005$). Individuals

who have chronic medical problems (N = 32 34.0%) are more likely to have had past inpatient or outpatient mental health treatment ($\chi^2 = 5.446$, $p \leq .014$).

Individuals who report past inpatient or outpatient mental health treatment (N = 78, 83.0%) are more likely to report that they are currently on psychotropic medication ($\chi^2 = 16.715$, $p \leq .005$).

Table 19 illustrates that those inmates who are diagnosed as suffering from depression, bipolar disorder, or schizophrenia report that they have had past inpatient or outpatient mental health treatment. Those individuals who suffer from psychosis not otherwise specified, other, or no Axis I diagnosis deny any past inpatient or outpatient mental health treatment ($\chi^2 = 46.483$, $p \leq .005$).

Those inmates who reported past suicide attempts (N = 76, 80.9%) were more likely to have had past inpatient or outpatient mental health treatment ($\chi^2 = 53.933$, $p \leq .005$). Individuals who state that they are currently participating in mental health treatment also report past mental health treatment ($\chi^2 = 4.114$, $p \leq .035$).

Table 19
Significant Difference Between Past Inpatient/Outpatient Mental Health Treatment and Axis I Diagnoses

INDIVIDUALS'S AXIS I DIAGNOSES	WHETHER INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT MENTAL HEALTH TREATMENT		
	Had Past Inpatient or Outpatient Mental Health Treatment (N = 94)	No Past Inpatient or Outpatient Mental Health Treatment (N = 46)	Total (N = 140)
DEPRESSION	45.7% (N = 43)	26.1% (N = 12)	39.3% (N = 55)
BIPOLAR DISORDER	26.6% (N = 25)	6.5% (N = 3)	20.0% (N = 28)
SCHIZOPHRENIA	12.8% (N = 12)	2.2% (N = 1)	9.3% (N = 13)
PSYCHOSIS NOS	7.4% (N = 7)	13.0% (N = 6)	9.3% (N = 13)
OTHER	6.4% (N = 6)	47.9% (N = 22)	20.0% (N = 28)
NONE	1.1% (N = 1)	4.3% (N = 2)	2.1% (N = 3)
$\chi^2 = 46.483$, $p \leq .005$			

It was concluded that past inpatient or outpatient mental health was an indicator that an individual needed future inpatient (N = 54, 57.4%) ($\chi^2 = 27.480$, $p \leq .005$) or outpatient (N = 93, 98.9%) mental health treatment ($\chi^2 = 5.224$, $p \leq .040$), as well as outpatient psychiatric treatment (N = 94, 100.0%) ($\chi^2 = 36.914$, $p \leq .005$).

Another issue that proved to be significantly related with past inpatient or outpatient mental health treatment was past inpatient substance abuse treatment. See Table 20. Also, inmates who report past inpatient or outpatient mental health treatment also report past outpatient substance abuse treatment (N = 45, 47.9%) ($\chi^2 = 4.895$, $p \leq .02$). See Table 21.

Table 20
Significant Difference Between Past Inpatient/Outpatient Mental Health Treatment and Past Inpatient Substance Abuse Treatment

PAST INPATIENT SUBSTANCE ABUSE TREATMENT	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT MENTAL HEALTH TREAMENT		
	Has Had Past Inpatient or Outpatient Mental Health Treatment (N = 94)	No Past Inpatient or Outpatient Mental Health Treatment (N = 46)	Total (N = 140)
YES	42.6% (N = 40)	19.6% (N = 9)	35.0% (N = 49)
NO	57.4% (N = 54)	80.4% (N = 37)	65.0% (N = 91)
$\chi^2 = 7.174$, $p \leq .005$			

Table 21
Significant Difference Between Past Inpatient/Outpatient Mental Health Treatment and Past Outpatient Substance Abuse Treatment

PAST OUTPATIENT SUBSTANCE ABUSE TREATMENT	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT MENTAL HEALTH TREAMENT		
	Has Had Past Inpatient or Outpatient Mental Health Treatment (N = 94)	No Past Inpatient or Outpatient Mental Health Treatment (N = 46)	Total (N = 140)
YES	21.3% (N = 20)	41.3% (N = 19)	27.9% (N = 39)
NO	78.7% (N = 74)	58.7% (N = 27)	72.1% (N = 101)
$\chi^2 = 6.164, p \leq .012$			

Employment status was found to be significantly related with past mental health treatment. Those who were employed prior to their incarceration are more likely to report that they have never had past mental health treatment. Their employment pattern in the past year demonstrated that persons with no past inpatient or outpatient mental health treatment were the only ones that were employed full time in that one year (N = 17, 37.0%). See Table 22.

Table 22
Significant Difference Between Past Inpatient/Outpatient Mental Health Treatment and Employment Pattern in Past Year

EMPLOYMENT PATTERN IN PAST YEAR	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT MENTAL HEALTH TREAMENT		
	Has Had Past Inpatient or Outpatient Mental Health Treatment (N = 94)	No Past Inpatient or Outpatient Mental Health Treatment (N = 46)	Total (N = 140)
FULL-TIME	12.8% (N = 12)	37.0% (N = 17)	20.7% (N = 29)
PART-TIME	13.8% (N = 13)	10.9% (N = 5)	12.9% (N = 18)
UNEMPLOYED	29.8% (N = 28)	21.7% (N = 10)	27.1% (N = 38)
INCARCERATED	5.3% (N = 5)	0.0% (N = 0)	3.6% (N = 5)
DISABLED	14.9% (N = 14)	8.7% (N = 4)	12.9% (N = 18)
SELLS DRUGS	23.4% (N = 22)	21.7% (N = 10)	22.9% (N = 32)
$\chi^2 = 13.080$, $p \leq .023$			

Past inpatient/outpatient substance abuse treatment

The variable for past inpatient or outpatient substance abuse treatment was coded as either the individual did have past substance abuse treatment or they did not have past treatment.

There are many mental health problems and substance abuse problems (both alcohol and drugs) reported by the inmate population. Those inmates who reported past inpatient and/or outpatient substance abuse treatment were also more likely to report past inpatient and/or outpatient mental health treatment (N = 50, $\chi^2 = 4.200$, $p \leq .03$). See Table 23.

Table 23
Significant Difference Between Past Inpatient or Outpatient Substance Abuse Treatment and Past Mental Health Treatment

HAS INDIVIDUAL HAD PAST MENTAL HEALTH TREATMENT	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT SUBSTANCE ABUSE TREATMENT		
	No Past Substance Abuse Treatment (N = 74)	Yes Past Substance Abuse Treatment (N = 66)	Total (N = 140)
YES	59.5% (N = 44)	75.8% (N = 50)	67.1% (N = 94)
NO	40.5% (N = 30)	24.2% (N = 16)	32.9% (N = 46)
$\chi^2 = 4.200$, $p \leq .03$			

Those same individuals who report having had past substance abuse treatment also reported that they are currently on medication for a mental illness (N = 53, 80.3%). Due to being on psychotropic medication, these

persons need to continue with psychiatric treatment in order to regulate their medication ($\chi^2 = 4.137$, $p \leq .032$).

Another problem that was found to relate with an individual's substance abuse treatment history was homelessness. Inmates who reported being homeless at some point in their lives had a history of substance abuse treatment. See Table 24.

Table 24
Significant Difference Between Past Inpatient or Outpatient Substance Abuse Treatment and Ever Been Homeless

EVER BEEN HOMELESS	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT SUBSTANCE ABUSE TREATMENT		
	No Past Substance Abuse Treatment (N = 60)	Yes Past Substance Abuse Treatment (N = 52)	Total (N = 112)
YES	35.0% (N = 21)	57.7% (N = 30)	45.5% (N = 51)
NO	65.0% (N = 39)	42.3% (N = 22)	54.5% (N = 112)
$\chi^2 = 5.784$, $p \leq .013$			

When an inmate was arrested under the influence of a substance during his/her crime, then they will have admitted that they have had past substance abuse treatment (N = 17, 81.0%). See Table 25. It was also discovered that those same individuals also reported using alcohol

and/or drugs continuously in the past one year (N = 64, 97.0%). See Table 26.

Table 25
Significant Difference Between Past Inpatient or Outpatient Substance Abuse Treatment and Under the Influence of Alcohol or Drugs During Crime

UNDER THE INFLUENCE OF SUBSTANCE DURING CRIME	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT SUBSTANCE ABUSE TREATMENT		
	No Past Treatment (N = 31)	Yes Past Treatment (N = 21)	Total (N = 52)
YES	51.6% (N = 16)	81.0% (N = 17)	63.5% (N = 33)
NO	48.4% (N = 15)	19.0% (N = 4)	36.5% (N = 19)
$\chi^2 = 4.648, p \leq .030$			

Table 26
Significant Difference Between Past Inpatient or Outpatient Substance Abuse Treatment and Substance Use in Past Year

SUBSTANCE USE IN PAST YEAR	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT SUBSTANCE ABUSE TREATMENT		
	No Past Treatment (N = 60)	Yes Past Treatment (N = 52)	Total (N = 112)
YES	86.5% (N = 64)	97.0% (N = 64)	91.4% (N = 128)
NO	13.5% (N = 10)	3.0% (N = 2)	8.6% (N = 12)
$\chi^2 = 4.892, p \leq .025$			

The abused substance of choice was related with past substance abuse treatment ($\chi^2 = 22.152$, $p \leq .001$). As displayed in Table 27, those persons who reported their drug of choice being cocaine, heroine, or a combination of alcohol and drugs, were more likely to have had past treatment.

Table 27
Significant Difference Between Past Inpatient or Outpatient Substance Abuse Treatment and Primary Drug of Lifetime

PRIMARY DRUG OF LIFETIME	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT SUBSTANCE ABUSE TREATMENT		
	No Past Substance Abuse Treatment (N = 74)	Yes Past Substance Abuse Treatment (N = 66)	Total (N = 140)
ALCOHOL	33.8% (N = 25)	10.6% (N = 7)	22.9& (N = 32)
MARIJUANA	4.1% (N = 3)	3.0% (N = 2)	3.6% (N = 5)
COCAINE	6.8% (N = 5)	12.1% (N = 8)	9.3% (N = 13)
HEROINE	1.4% (N = 1)	1.5% (N = 1)	1.4% (N = 2)
POLYSUBSTANCE	5.4% (N = 4)	3.0% (N = 2)	4.3% (N = 6)
ALCOHOL AND DRUGS	39.2% (N = 29)	69.7% (N = 46)	53.6% (N = 75)
NONE	9.5% (N = 7)	0.0% (N = 0)	5.0% (N = 7)
$\chi^2 = 22.152$, $p \leq .001$			

Not surprisingly, multiple drug offenses were also related with past substance abuse. Persons who had past substance abuse treatment were more likely to be charged with multiple drug offenses (χ^2 = 28.070, p $\leq$ .005). See Table 28. The same individuals also were found to still be in need of inpatient (χ^2 = 7.770, p $\leq$ .004) or outpatient (χ^2 = 17.258, p $\leq$ .005) substance abuse treatment.

Table 28
Significant Difference Between Past Inpatient or Outpatient Substance Abuse Treatment and Number of Charges for a Drug Offense

NUMBER OF CHARGES FOR A DRUG OFFENSE	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT SUBSTANCE ABUSE TREATMENT		
	No Past Treatment (N = 74)	Yes Past Treatment (N = 66)	Total (N = 140)
ONE	16.2% (N = 12)	6.1% (N = 4)	11.4% (N = 16)
TWO	13.5% (N = 10)	19.7% (N = 13)	16.4% (N = 23)
THREE	5.4% (N = 4)	12.1% (N = 8)	8.6% (N = 12)
FOUR	4.1% (N = 3)	9.1% (N = 6)	6.4% (N = 9)
FIVE	0.0%	13.6% (N = 9)	6.4% (N = 9)
SIX OR MORE	10.8% (N = 8)	19.7% (N = 13)	15.0% (N = 21)
NONE	50.0% (N = 37)	19.7% (N = 13)	35.7% (N = 50)
χ^2 = 28.070, p $\leq$ .005			

Individuals with a family history of problems such as substance abuse, mental illness, or dual diagnosis, were more likely to have had past substance abuse treatment (χ^2 = 8.281, p $\leq$ .041) as well. See Table 29.

Table 29
Significant Difference Between Past Inpatient or Outpatient Substance Abuse Treatment and New Family History of Problems

FAMILY HISTORY OF PROBLEMS	HAS INDIVIDUAL HAD PAST INPATIENT/OUTPATIENT SUBSTANCE ABUSE TREATMENT		
	No Past Substance Abuse Treatment (N = 65)	Yes Past Substance Abuse Treatment (N = 61)	Total (N = 126)
SUBSTANCE ABUSE	47.7% (N = 31)	54.1% (N = 33)	50.8% (N = 64)
MENTAL ILLNESS	0.0%	1.6% (N = 1)	0.8% (N = 1)
DUAL DIANGOSIS	7.7% (N = 5)	19.7% (N = 12)	13.5% (N = 17)
NONE	44.6% (N = 29)	24.6% (N = 15)	34.9% (N = 44)
χ^2 = 8.281, p $\leq$ .041			

Summary

The research indicates that living alone, not having a support system of at least one person, having a family history of substance abuse and/or mental illness, and

having a Axis I psychiatric diagnosis appeared to have a very negative impact upon an individual. Those individuals who reported that they lived alone were more likely to report that they did not have a support system and to be unemployed.

The persons who reported that they did not have a support system at all also reported having the following problems: they did not obtain their high school diploma or GED equivalent, they had a history of homelessness, there was a family of substance abuse and/or mental illness, they were often a victim of emotional, physical, and/or sexual abuse, they had a history of past inpatient substance abuse treatment, and they were in need of inpatient mental health and psychiatric treatment.

Other conclusions that were a result of this study focused upon individuals who suffer from an Axis I psychiatric diagnosis. Those persons who are diagnosed as suffering from bipolar disorder or schizophrenia often reside alone, while those who suffer from depression often live with somebody. The individuals who are diagnosed as suffering from bipolar disorder, schizophrenia, or depression report a history of homelessness, have a higher rate of suicide, are often unemployed, and are currently on

psychotropic medication in order to regulate their mental illness. These individuals are also in need of future inpatient mental health and psychiatric treatment.

Overall, the data indicates that individuals who suffer from a psychiatric diagnosis are in need of mental health, psychiatric, and/or substance abuse treatment. Additionally, these persons lack a support system to aid them in coordinating treatment programs, in conjunction with a place to live, financial assistance, and medical services, if needed. This study determines that a forensic case manager is needed to assist these psychiatrically diagnosed individuals with coordination of services.

In the next chapter, the conclusions, limitations of the study, and recommendations for future research are presented.

CHAPTER V

DISCUSSION

The purpose of this study was to investigate the need for forensic case management for mentally ill offenders upon leaving jail. One hundred and forty psychiatrically diagnosed cases were analyzed. This study supports the need for psychiatrically diagnosed inmates to have a case manager to assist them in integrating aftercare treatment, such as mental health, psychiatric, and substance abuse treatment. These individuals tend to lack a support system of at least one person to assist them in doing so.

The research indicates that living alone, not having a support system of at least one person, having a family history of substance abuse and/or mental illness, and having an Axis I psychiatric diagnosis appeared to have a key influence upon coordinating needed, and often court mandated, aftercare arrangements.

The individuals who reported that they resided alone also reported that they did not have a support system at all, and they also tended to be unemployed. Those persons who reported that they did not have a support system of at least one person additionally testified that they never

obtained their high school diploma or GED equivalent, were victims of homelessness, and of emotional, physical, and/or sexual abuse. There was a history of substance abuse and/or mental illness within their family. These individuals had a history of past inpatient substance abuse treatment, and it was discovered that they were in need of inpatient mental health and psychiatric treatment.

Other results of this study concentrated upon those individuals who are diagnosed with an Axis I psychiatric diagnosis. These persons often reside alone, report a history of homelessness, have a higher rate of suicide attempts, and are currently on psychotropic medication in order to regulate their mental illness. They are also determined to be in need for future inpatient mental health and psychiatric treatment.

Each of the variables associated with recidivism for psychiatrically diagnosed individuals appears to be indicators of a lack of support system. Individuals who are capable of coordinating aftercare treatment once they are released from jail have stability in terms of home life. This can best be explained by reasoning that psychiatrically diagnosed individuals with tangible reasons to avoid incarceration are more likely to succeed in

remaining out of jail. A single study cannot provide definitive answers, but it establishes a foundation for future study. However, the analysis can clarify certain factors associated with the recidivism of these individuals.

Limitations of the Study

Since all research is impeded by limitations, most of the limitations encountered in this study are common to other studies. According to Price and Baunach (1980) common obstacles to research include "measurement problems and the associated difficulties of operationalizing variables and outcome measures, and the condition of the information itself and gaining access to it" (p. 104).

The findings of this study were limited by several factors. A major limitation was the level of analysis undertaken by this researcher. This limitation was due to the data available. Another limitation of this study involved researcher bias. Researcher bias always presents limitations in the interpretation of results. A second researcher could use the same data and may report different findings and interpretation of the results due to

dissimilar variable groupings. An additional limitation is that this study is dependent on the subject's self-report, and further research could possibly confirm these self-reports.

The above described methodological shortcomings and researcher bias regarding the criteria established for the outcome measures could be cause for deliberation of the accuracy of the findings. Therefore, all interpretation of the findings should be made accordingly.

Implications

The number of psychiatrically diagnosed individuals will probably continue to grow within the jail setting as state mental hospitals continue to become overcrowded and close operations. The need to assist these individuals in coordinating aftercare treatment, such as mental health, psychiatric, and/or substance abuse counseling, will assist in reducing recidivism rates.

Findings that establish a need for forensic case management for psychiatrically diagnosed offenders upon leaving jail certainly have implications for the correctional professionals. These findings could be useful

sustaining this population in a treatment setting and community based setting.

Further, while incarceration may be suited for some mentally ill offenders, those individuals who would benefit more from treatment, in lieu of incarceration, should be not be incarcerated. Judges need to be informed of risk factors and prediction indicators in order to base their decisions regarding granting an individual treatment instead of incarceration. Studies that provide analysis of which characteristics are predictive of success and failure can aid this process.

The most important implication for staying out of jail entails treatment. In the present study many of those identified as needing treatment did not receive it. Consequently, most of those who were not involved in the appropriate treatment programs were rearrested and returned to jail. It is possible that many mentally ill persons might succeed and remain out of incarceration if they received effective treatment. The issue of adequate mental health and substance abuse treatment can not be ignored. To assure this treatment, the offender needs a support system. If one is not available then a forensic case manager is needed to fill the void.

Recommendations for Future Research

A replication of this study with stricter criteria could further clarify the generalizations of these findings. Reserved for future review is the issues surrounding the limitations of this study. However, the findings of this study should help refine the focus of future research. Future research may also take a look at recidivism rates in relation to these findings.

A major issue for future research is determining an effective means of assisting psychiatrically diagnosed individuals in coordinating treatment programs. There is an urgent need for more extensive research exploring the use of case management as an alternative to incarcerating these individuals.

In light of the above recommendations that reflect what the literature regards as important to future data, it is important to note that even though it is possible to establish a relationship between variables and outcome, causal relationships are difficult to establish due to the possible existence of other mediating factors not identified.

Conclusions

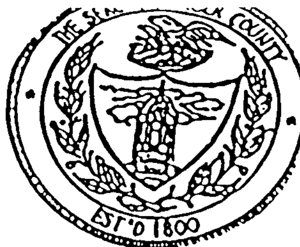
Over the past 50 years psychiatrically diagnosed offenders have become a major issue in the field of corrections, gaining the attention of researchers. The aim of this research was to assess the need for forensic case management for psychiatrically diagnosed individuals upon leaving jail. The results suggested that a strong support system and stability were the best indicators of reducing recidivism. These findings should be interpreted carefully and improved upon. Hopefully, the number of studies assessing the need for forensic case management will continue to increase over the next few years.

APPENDIX A

LETTERS OF PERMISSION

MERCER COUNTY PRISON BOARD

Cloyd E. Brenneman, President
Dennis M. Songer, Vice President
Olivia M. Lazor, Secretary
Francis J. Fornelli
Richard R. Stevenson
James P. Epstein
William H. Romine



COUNTY OF MERCER

MERCER COUNTY PRISON

138 South Diamond Street
Mercer, Pennsylvania 16137
Telephone (724) 662-3800 or
(724) 662-2700
Fax (724) 662-1047

Jeffrey P. Gill, Warden

The Honorable Francis J. Fornelli
President Judge
Mercer County Courts

September 30, 1999

RE: MELANIE VARRO'S THESIS

To Whom It May Concern:

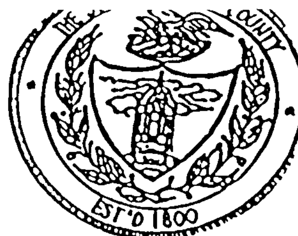
Ms. Varro has my permission to utilize the Mercer County Courthouse's records, including Pre-Sentence Investigation and Arrest History, in order to collect data in regards to her thesis. All identifiable data on the subjects, including names, date of birth, and social security numbers, will be held confidential and not be disclosed to anyone.

Respectfully,

The Honorable Francis J. Fornelli
President Judge

MERCER COUNTY PRISON BOARD

Cloyd E. Brenneman, President
Dennis M. Songer, Vice President
Olivia M. Lazor, Secretary
Francis J. Fornelli
Richard R. Stevenson
James P. Epstein
William H. Romine



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Jeffrey P. Gill, Warden

Mercer County Jail
138 S. Diamond Street
Mercer, Pa 16137

September 30, 1999

RE: MELANIE VARRO'S THESIS

To Whom It May Concern:

Ms. Varro has my permission to utilize the Mercer County Jail's records, in order to collect data in regards to her thesis. All identifiable data on the subjects, including names, date of birth, and social security numbers, will be held confidential and not be disclosed to anyone.

Respectfully,

Warden Jeff Gill
Mercer County Jail

APPENDIX B

HUMAN SUBJECTS LETTER

Youngstown State University / One University Plaza / Youngstown, Ohio 44555-0001

March 9, 2000

Professor C. Allen Pierce
Department of Criminal Justice
Youngstown State University
1094 Cushwa Hall
CAMPUS

RE: Human Subjects Research Committee (HSRC) Protocol (Unnumbered - Melanie Varro)

Dear Professor Pierce:

At the request of Dr. Tammy King, Chairperson, Department of Criminal Justice, we are writing to provide you with a determination letter based on our review of the above referenced protocol. To this end, we have determined that the research described in it reflects activity that normally would be considered as exempt from full-committee review under a U.S. Department of Health and Human Services (DHHS) Category 4 exemption.

Please note that because the research described in this protocol was conducted prior to, and without benefit of, institutional review board review and approval, this letter does not reflect a formal action on the part of the YSU Human Subjects Research Committee, which does not have the legal authority to sanction *post facto* human subjects-based research. It does reflect our professional opinion that such research, had it been considered through the normal HSRC process, would have qualified for this exemption, and likely would have received either full or conditional approval.

We strongly encourage faculty having advisory responsibility for graduate student research to notify their students well in advance, and preferably at the thesis/dissertation proposal stage, that (1) human subject research activity must be reviewed and approved by the HSRC prior to the initiation of the research in order to benefit from the full legal protections afforded by the institutional review board process, and (2) that human subjects-based research conducted outside of the process is not legally sanctioned by the University. Further, YSU dissertation/thesis advisors should be aware that their graduate faculty status automatically confers joint principal investigator status, including overarching responsibility for student-based research.

We trust that you will regard this information as instructive and not punitive, and, of course, we will be pleased to discuss any of the above considerations, or any other aspect of human subjects-related research with you, should you feel the need.

Sincerely,

JoLynn Carney, Ph.D.
Program Co-chair
Human Subjects Research Committee

Eric C. Lewandowski, CRA
Administrative Co-chair
Human Subjects Research Committee

cc: T. King
P. Kasvinsky
S. Denman

EL/JLC

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