THE CRIMINALIZATION OF THE MENTALLY ILL: AN EXAMINATION OF THE HYPOTHESIS

by

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The criminalization of the mentally ill:

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Abstract

The criminalization of the mentally ill: An examination of the hypothesis

This study explores the presence of the mentally ill in, and the consequences to them from their involvement with, the criminal justice system. These issues fall under the rubric of the "criminalization of the mentally ill". The process and consequences of deinstitutionalization of the mentally ill, the relationship between mental illness and criminal behaviour, epidemiological research on mental illness in criminal justice system sites, and the methodological problems in this research were reviewed to provide a context for the present study.

The subjects were men remanded to jail to await trial. Study 1 involved 317 consecutive admissions to the jail. Study 2 involved 107 inmates in a stratified random sample of the jail population. Descriptive information included mental health and criminal histories and the Brief Psychiatric Rating Scale. Epidemiological information came from using the Diagnostic Interview Schedule on a selected group in Study 1 and all of Study 2. Outcome information included medical, institutional progress, and criminal outcomes.

The hypotheses for both studies were the mentally ill: (1) are more prevalent in jail than in the general population, (2) have more extensive criminal histories especially for less serious offences, (3) entered on less serious charges, (4) serve more remand time, (5) receive more severe criminal outcomes, (6) use up more staff resources, and (7) receive more disciplinary infractions.

Epidemiological results from Study 1 indicate that approximately 8% were schizophrenic and 15% had an affective disorder. Study 2 indicated that 13% were

schizophrenic and 43% had an affective disorder. There was a large number of multiple disorders. A large proportion of the affective disordered group had an alcohol/drug disorder and/or an antisocial personality disorder. For the most part, the hypotheses were bourne out in Study 1 and not in Study 2.

Discussion focussed on a model of criminalization which was used to explain the differences in results between the two studies.

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CHAPTER I

CRIMINALIZATION OF THE MENTALLY ILL

Introduction

> There has been a great deal of speculation that the mentally-ill persons who would previously have been treated within mental hospitals are now being processed through the criminal justice system and constitute an ever-increasing proportion of the jail population.(Teplin, 1983, p. 54)

Genesis

The beginning of this study is found in two events. First, the experience of the psychologists at a local jail, the site of this study, who found a large number of mentally-ill prisoners entering the jail for seemingly less serious crimes than those of the general prison population. I wanted to explore this phenomenon. Second, while reviewing the research on the mentally-ill in the criminal justice system, Linda Teplin's article (1984a), which reviewed the issues in this area, outlined the methodological problems in this research and proposed an outline for future research in this area, appeared in the American Psychologist . This study was a result of applying Teplin's guidelines to this specific site.

The present study, which is part of a broader research endeavor, examined the presence of the mentally-ill in the criminal justice system. It also examined the consequences, to the mentally ill, of their involvement with the criminal justice system. These issues fall under the rubric of the "criminalization of the mentally ill hypothesis" which attempts to explain the increasing number of the mentally ill in the criminal justice system.

Background

The issue is not a new one. Since Daniel M'Naughten tried to assassinate the British Prime Minister, Sir Robert Peel, in 1843 we have been aware of the difficulties the criminal justice system has in dealing with the mentally ill. The involvement of the mentally ill in criminal courts has led to the development of specific legal principles, such as the verdicts of not guilty by reason of insanity (NGRI) and guilty but insane, the defenses of irresistable impulse and of diminished capacity, and the legal tests of insanity found in the M'Naughten rules, the New Hampshire test, the Durham test and the Model Penal Code. However, the strict requirements of these tests makes these dispositions relatively rare events (Stone, 1975).

In contrast, as Teplin (1983) has suggested, involved professionals believe that the number of mentally ill persons entering the criminal justice system has increased. For the most part these persons do not commit notorious offences such as McNaughten. In fact, psychotic inmates may commit less serious offences than other inmates (Valdiserri, Carroll & Hartl, 1986). Because the test for insanity is restrictive and the consequences are often dire, the insanity defence is seldom invoked (and is less frequently successful) except in very serious or very infamous offences. Thus, the presence of the mentally ill in the criminal justice system is not readily apparent, and constitutes something of a hidden problem.

The involvement of the mentally ill in the criminal justice system creates difficulties in decision making and disposition. These difficulties are reduced when the population of mentally ill persons in the community is small, when the proportion of them who commit offences is small, when they are readily identifiable, and when society has a straightforward policy for disposition of mentally ill criminals. There are also few difficulties for the criminal justice system if the mentally ill are detained within mental

health system institutions, and therefore they can not be socially disruptive nor commit crimes in the community. Problems arise for the criminal justice system if these premises do not hold.

There seems to be a limit to society's tolerance of socially disruptive behaviour (Abramson, 1972; Aviram & Segal, 1973; Rachlin, Pam & Milton, 1975). Those who are disruptive are withdrawn from the community by the most expeditious method (Bonovitz & Guy, 1979). As Lamb (1984b) has suggested, the public wants these persons "out of sight out of mind" (p. 901). Therefore there is societal pressure to remove the disruptive mentally ill to less conspicuous places that will control their behaviour.

The placement of the mentally ill, both historically and currently, has been in one of four sites: the home, the community (whether in care or not), the asylums and the jails. These locations form an interdependent system: the mentally ill move from one site to another (Bachrach, 1978; Stone, 1975). Social policy, which determines the location of the mentally ill, is based on the evaluation of the costs and benefits of each site. As society has formalized the treatment of the mentally ill and assumed responsibility for them, the mentally ill have moved from the home and community into society's institutions: the asylum and jail. The asylum and jail can also control the socially disruptive behaviour of the mentally ill while the community and home can not. Some exponents of the criminalization of the mentally ill hypothesis believe that recent changes in social policy (e.g., deinstitutionalization) have resulted in the mentally ill not being confined nor under active care. This policy has resulted in them entering the criminal justice system: this pathway leads to jail door.

Outline

The task of this research was to examine the number of mentally-ill persons arriving at the jail door and what happens to them when they enter. Specifically, this research focused on: (1) the nature and extent of mental illness found in remanded prisoners, and (2) whether mentally-ill prisoners are different than non-mentally-ill prisoners in either their criminal histories or current criminal charges, in their behaviour while incarcerated, and in their criminal outcomes.

To provide a context for this study, this chapter reviews the factors (e.g., deinstitutionalization, criminalization) that have been posited to account for the number of mentally ill in jails. An analysis of the policy of deinstitutionalization that determines where the mentally ill are to be located and the consequences of this policy is provided. Criminalization of the mentally ill is defined. Chapter two reviews the relationship of mental illness to criminal behaviour and provides an analysis of the process (e.g., decisons, settings) by which the mentally ill enter the criminal justice system. Chapter three reviews the prevalence of mental illness in criminal justice system settings. The relation of severity of mental illness to criminal characteristics and criminal outcomes that address the criminalization issue are discussed. Chapter four discusses broad methodological issues in this research area. This introductory section closes with Chapter five, which outlines the method, questions, and hypotheses of the present study.

Deinstitutionalization

History

> Bedlam beggars, who, with roaring voices,
> Strike in their numb'd and mortified bare arms...
> Sometime with lunatic bans, sometime with prayers,
> Enforce their charity.
> (Shakespeare, King Lear, ActII Scene 3)

The care and location of persons who are strange or incomprehensible, whose behaviour labels them as different or deviant, has been a dilemma for centuries. This is a problem of response and responsibility: What do we do to, for, and with those identified as mentally ill?

Historically, changes in the treatment of the mentally ill have been motivated by two competing factors. First, change results from new and more humane social philosophies of treatment. This creates a cycle: there is a revolution of new humane treatment, this becomes formalized and institutionalized, and, in turn, is revolutionized. Care of the chronically mentally ill has been described as comprising three revolutions: one of asylum care and moral punishment, one of psychopathic hospitals and the mental hygiene movement, and one of the community mental health movement (Greenblatt, 1977a; Morrissey and Goldman, 1984). These changes bring their own problems. As Durham (1989) points out: "In fact, the history of the treatment of the mentally ill has a clearly cyclical appearance which has not been informed by the mistakes of the past." (p. 117). In summary, treatment of the mentally ill is based on humane philosophies that are tempered by a desire to act in their best interest -- whatever that may be.

In contrast to this liberalizing and humanitarian force is the limit to society's tolerance of the treatment and location of the mentally ill in the community

(Abramson, 1972; Aviram & Segel, 1973; Rachlin et al., 1975). Community treatment is tolerated until the mentally ill's actions brings them into public scrutiny, whereupon they are transferred to less public places. As Lamb (1984b) pointed out, institutions "fulfilled the function for society of keeping the mentally ill out of sight and thus out of mind" (p. 901). Under the aegis of society's formalized institutions the tension between humane versus confining treatment philosophies had found resolution in institutional care of the mentally ill.

Even a cursory analysis of history suggests that the treatment of the mentally ill is at least as much a function of socio-political considerations as it is a result of rational thought and clinical knowledge (Greenblatt, 1977a, 1977b; Borus, 1981). Durham (1989) has suggested that policymakers respond to public pressure in deciding "what to do with the mentally ill" (page 117). Whatever initiates changes in treatment of the mentally ill, treatment has traditionally led to the exclusion of the mentally ill from the rest of society (Aviram & Segal, 1973; Feive, 1977; Kirk & Therrien, 1975). This policy has operated under the assumptions that society needed to be protected from the mentally ill (Bonovitz & Bonovitz, 1981; Nunnally, 1961) and that the mentally ill were best cared for in mental hospitals (Lamb & Peele, 1984). It is the recent questioning of these assumptions that provided the philosophical basis for the deinstitutionalization movement.

Deinstitutionalization

> The era of deinstitutionalization is the sequel to the century of the state mental hospital. In that earlier age compassion for mentally ill persons pointed... to the construction and improvement of state mental institutions as a refuge from the demands and dangers of society... now the community becomes their hospital. (Pepper & Ryglewicz 1982, pp. 388-389).

Deinstitutionalization is the policy of treating the mentally ill in the community. Deinstitutionalization of the mentally ill has been described as a philosophy, a process, and a fact (Bachrach, 1978). As a philosophy, deinstitutionalization expressed a civil-libertarian approach to mental patients rights, and a social-behavioural orientation to mental health treatment. Policy makers and mental health professionals saw deinstitutionalization as a revolutionary new social policy in the treatment of the mentally ill (Morrissey & Goldman, 1984). It represented the hopes and beliefs (Kirk & Therrien, 1975) that the chronically mentally ill could be successfully treated and become integrated and productive members of the community. As a process, deinstitutionalization referred to the movement of patients from cloistered mental health facilities to the community. As a fact, deinstitutionalization referred to the reduction of the number of mentally ill residing in institutional facilities through: returning mentally ill persons from institutions to the community, restricting new admissions, and treating new admissions to the mental health system on an outpatient or short-term inpatient basis.

Deinstitutionalization involved two components: (1) an avoidance or shunning of institutional treatment, especially in state hospitals, of the mentally ill and (2) the expansion of community-based treatment of the mentally ill (Bachrach, 1977a). This policy was based on several assumptions: the mentally ill were best cared for in the community (Bachrach, 1977a; Smith & Hart, 1975), the mentally ill were not more dangerous than the rest of the population (Scull, 1985; Shah, 1975; Nunnally, 1961; Zitrin, Hardesty, Burdock & Drossman, 1976), and hospitals were no longer necessary to control their behavioural symptoms (Lamb, 1984b; Smith & Hart, 1975).

In summary, deinstitutionalization is characterized by the policy of returning mentally-ill persons from institutions to community care by reducing residential placement and restricting inpatient care.

This policy was not just a North American phenomenon. A World Health Organization report stated that, in industrialized countries, there was a fundamental change in the treatment of the mentally ill between 1955 and 1977: a movement from treatment in institutions to treatment in the community (Curran & Harding, 1978). Curran and Harding (1978) implicated four factors in the growth of deinstitutionalization: (1) an increased interest in national rights increased the interest in civil rights including those of the mentally ill, (2) an improvement in the techniques of treatment of the mentally ill (e.g., drug therapy, behaviour therapy, more pragmatic approaches to therapy), (3) the reorganization of the mental health systems in most countries, and (4) changes in mental health laws. As a result, institutional care "has been supplemented and to some extent replaced by a range of other services" (Curran & Harding, 1978, p. 16).

A review of the literature (cf. Durham, 1989; Morrisey & Goldman, 1984; Roesch & Golding, 1985; Talbott, 1979) suggests that the policy of deinstitutionalization was directed by four basic forces: (1) the development of psychotropic medication that controlled the symptoms of mental illness, (2) the promotion of the legal rights of the mentally ill, (3) the costs of institutional care were enormous and community-care was found to be more cost-effective and politically advantageous, and (4) the highest level of functioning for the mentally ill was brought about through the least restrictive care compatible with their safety needs (Pepper & Ryglewicz, 1982). Through this it was thought that the best interests of the mentally ill

were vigorously promoted: they would be given the greatest amount of personal freedom. But the cost of this freedom was perhaps unanticipated.

The Consequences of Deinstitutionalization

> ...those patients, formerly eligible for mental-hospital treatment, who had been discharged to the 'decentralised back wards' outside the medical system: the rooming-houses, back-street hotels, welfare hostels, Salvation Army shelters, proprietary 'nursing' or 'foster' homes, the jails, the streets themselves. (Sedgwick, 1982, p. 188)

> When lay people or psychiatric professionals refer to the mess or disaster created by deinstitutionalization, they are usually referring to several events. Most striking was the dramatic appearance of large numbers of obviously mentally ill people on city streets, people who were dirty, who wore torn or inappropriate clothing, who hallucinated and talked to themselves or shouted to others, and who in general acted in a strange or bizarre way, In many places, huge ghettos of discharged patients were created in areas of low-cost housing, proprietary homes, or deteriorating neighbourhoods. Talbott, 1979, p. 622).

Deinstitutionalization resulted in the discharge of large numbers of mentally ill patients into the community over a relatively short time (Bachrach, 1978; Lamb, 1984b; Pepper & Ryglewicz, 1982; Sadoff, 1978; Talbott, 1979). As expected, the mental hospital population dramatically decreased between the 1950s and the 1970s (Becker & Schulberg, 1976) and the 1980's (Scull, 1985). The figures most often quoted are a 75% decline between 1955 (560,000), which saw the largest number of hospitalized mental patients in the history of the United States, to the 1980s (120,000) (Scull, 1985). The decline in the number of hospitalized mental patients was matched in the rest of the industrialized countries (Curran & Harding, 1978, p. 16).

Also, during this time there was an increase in the number of hospital admissions, a decrease in the length of hospital stay, and a dramatic increase in the number of readmissions of the mentally ill (Aviram & Segal, 1973). The latter phenomenon led to what some call the "revolving door policy" (Bachrach, 1978;

Carpenter, Mulligan, Bader & Menzer, 1985; Geller, 1985; Talbott, 1974). Although the resident mental patient population decreased over this period, the incidence of mental illness did not decrease. This was apparant in the work of Redlich and Keller (1978) who followed-up Hollingshead and Redlich's (1958) classic study on the mentally ill population. They found that, in 1975, the resident mental institution population was one-third the 1950 population. Also, they found that the characteristics of the institution population changed. For example, 45% of the hospital population was schizophrenic in 1950 and 20% schizophrenic in 1975, while the proportion of patients with alcohol problems increased in the exact same proportion: that is, those beds previously filled by schizophrenics were now filled by alcoholics. Thus, not only had the numbers of people hospitalized been reduced, but also the proportion of those hospitalized that were severely and chronically mentally ill was even further reduced: in 1975 the hospitalized schizophrenic population was 15% of that seen in 1950. In summary, Redlich and Keller (1978) found new evidence for Aviram and Segal's statements. Outpatient admissions had increased 1000%, the length of hospital stay had reduced from an average of 20 years to just 9 months, and the readmission rate had increased 600%. Truly a revolving door.

At first glance, deinstitutionalization was seen as a great step forward in the treatment of the mentally ill. A second, and crucial, observation of the events between the 1950s and the 1970s indicates that, by reducing the state hospital population, many patients have "largely been lost to the service delivery system" (Bachrach, 1978, p. 575) and were not accounted for (Sedgewick, 1982). This has been referred to as "falling between the cracks" of mental health service delivery systems (Bachrach, 1978; Talbott, 1979). This suggests that the mentally ill were simply not being cared for. Deinstitutionalization led to large numbers of the mentally ill not being in care or in partial care in the community. This discharge to the community was done without

adequate social and treatment planning (Pepper & Ryyglewicz, 1982), thus, the services available were inadequate for meeting their needs. What was the impact of this policy on the mentally ill?

In summary, the consequences of this policy were as follows: Following deinstitutionalization it became clear that, although the intention was for treatment of the mentally ill in the community, the deinstitutionalized mentally ill were not in care or they were "in and out" of mental health centers or hospitals (Ball & Havassy, 1984; Lamb & Peele, 1984; Talbott, 1979). Thus, their psychological disturbance was exacerbated when the mentally ill were not in care (Ball & Havassy 1984; Becker & Schulberg 1976) and they became more noticeably bizarre (Talbott, 1979). It became apparent that the mentally ill were generally feared, avoided, and rejected (Sarbin, 1969): so much so that society excluded the mentally ill from regular communities (Aviram & Segal, 1978; Reich, 1973). In addition, besides the mentally ill who were ghettoized but stabley located, there arose a new subclass of mentally-ill persons: the homeless or drifters (Bachrach, 1984; Ball & Havassy, 1984; Lamb, 1982, 1984b; Pepper & Ryglewicz, 1982) who had a higher rates of alcohol and drug abuse and criminal involvement (Gelberg, Linn & Leake, 1988). This group of mentally-ill persons experienced a high degree of physical illness (Bachrach, 1984) and also "die[d] of neglect or social abuse" (Sadoff, 1978, p. 430) including a one hundred fold higher incidence rate of suicide (Zitrin et al., 1976). They became victims of crime (Becker & Schulber, 1976; Miller, 1982), even if they were under nursing home care (Lehman & Linn, 1984). Finally, there is evidence that this group of the mentally ill were not only victimized but were also criminalized: they were sent to jail.

Conclusion

In summary, the problems of deinstitutionalization resulted in serious consequences for the mentally ill. This result carries a high cost for some of the mentally ill. Some experienced an increase in psychological disturbance and a revolving door utilization of the mental health system (Bachrach, 1984). This is in part due to the basic survival pressures of the street, their lack of psychosocial and financial resources, and the stress they experience (Ball & Havassey, 1984). The increase in the homeless mentally ill is a result of inadequate social services (Bachrach, 1984). Furthermore, there is a lack of services to meet the needs of a new, unidentified, uninstitutionalized subgroup of young chronically mentally-ill adults (Bachrach, 1982) who create problems for service delivery systems. Finally, as Miller (1982) pointed out "such deinstitutionalized patients tend to end up in psychiatric ghettos where they are constant victims of crime and exploitation...or in prisons or jails..." (p. 49). This has consequent effects for both the mental health and criminal justice systems.

Criminalization of the mentally-ill

Introduction

> [T]here is a growing trend to transfer both direct and indirect mental health service delivery from civil mental hospitals to prison facilities ... deinstitutionalization and a community-based delivery system appear to have contributed to the trend. (Stelovich, 1979, p. 618)

Many believe the promise of deinstitutionalization has gone unfulfilled (e.g., Abramson, 1972; Lamb & Grant, 1982; Teplin, 1983; Whitmer, 1980) and the consequences of deinstitutionalization have been far more serious and costly for mentally-ill persons than the original institutionalization. One such cost is the criminalization of the mentally-ill (Abramson, 1972; Lamb, 1984a, 1984b; Stelovich, 1979; Teplin, 1983; Whitmer, 1980).

There are persons who are mentally ill and commit criminal acts. The criminal acts may, or may not, be a direct result of their mental disorder, but since these persons can be included in both social systems they may suffer double consequences. Some viewers may see this result as receiving double benefits rather than costs. For the most part, writers perceive these results as costs directly stemming from being able to be included in both social systems. As Beran and Hotz (1984) state: "with one foot in the criminal justice system and the other in the mental health system, mentally-ill criminal offenders have been conceptualized as doubly stigmatized by some and doubly afflicted by others" (p. 585). It may be that being able to meet the inclusionary criteria for either system makes one unsuitable (and unwanted) for either system. The mental health system does not want "criminals" in its hospitals and the criminal justice system does not want "crazies"in its jails.

Definition of Criminalization

> Preoccupation with the need to protect the mentally ill from the excesses of the mental health system may have inadvertently led to the use of the criminal justice system as a means of controlling socially unacceptable behaviour. (Bonovitz & Bonovitz, 1981, p. 973)

> Indeed, several studies describe a criminalization of mentally disordered behaviour--that is, a shunting of mentally ill persons in need of treatment into the criminal justice system instead of the mental health system...Rather than hospitalization and psychiatric treatment, the mentally ill often tend to be subject to inappropriate arrest and incarceration. (Lamb, 1984b, p. 903)

Criminalization of the mentally ill involves three interrelated components. Criminalization is the "shunting of mentally ill persons in need of treatment into the criminal justice system instead of the mental health system" (Lamb, 1984, p. 905). There is an increasing pressure for the criminal justice system to reinstitutionalize the mentally ill (Abramson, 1972). Second, criminalization is the use of the criminal justice

system to control socially unacceptable behaviour which occurs as a result of a mental disorder (Bonovitz & Bonovitz, 1981; Bonovitz & Guy, 1979). If the disruptive mentally ill cannot enter into one system then they will be put into another (Abramson, 1972). Finally, criminalization of the mentally ill suggests that the criminal justice system treats the mentally-ill offender differently than other offenders, for example, when judges act paternalistically in giving the mentally ill longer or more onerous sentences (Beck, Borenstein & Dreyfus, 1984). It has also been shown that the police are more likely to use arrest as a method of resolving situations when the mentally ill come into conflict with the law (Teplin, 1983, 1984b, 1985).

The criminalization hypothesis is not solely concerned with evidence indicating that a large number of mentally ill persons are being held in the criminal justice system, but strives to understand the causes and consequences of their presence in the criminal justice system. It does not propose that criminal acts by mentally-ill and non-mentally-ill persons should necessarily have different criminal consequences, but there are the implicit beliefs that the criminal justice system is an inappropriate treatment resource, that incarceration is unjustifiable treatment method for the mentally ill, and that the mentally ill should be under active care that would minimize the risk of criminal activity due to their mental illness.

There is also a concern that, for the same act, the mentally ill are more criminalized, that is, have more criminal justice system intervention than do the non-mentally-ill person. More intervention may involve both greater frequency and greater severity (e.g., more onerous) of criminal justice system intervention.

There may be good reasons for a differentiated intervention. For example, it may be that the mentally ill are less likely to show up for future court dates due to effects of their mental illness. Thus, those charged who are mentally-ill are more likely

to be remanded to jail to await trial than the non-mentally-ill accused. Mentally-ill prisoners may be less likely to be granted parole than non-mentally-ill prisoners because the formers' behaviours are less predictable (or so it seems) than the latters' behaviours. The police may be more likely to lock up mentally-ill persons than non-mentally-ill persons because the former are less responsive to informal dispositions in an incident (e.g., will not listen to reason or conduct themselves in an orderly fashion after police intervention) than the latter. In order to determine whether the differentiated intervention - criminalization - of the mentally ill is warranted, the phenomenon must be more fully explored.

In summary, the criminalization of the mentally ill hypothesis would be supported if an increase in proportional representation of the mentally ill in the criminal justice system can be demonstrated and if there is evidence of differences in criminal justice system decisions and responses to the mentally ill when compared to the non-mentally ill.

The causes of criminalization

A number of authors (e.g., Abramson, 1972; Stelovich, 1979; Teplin, 1983, 1984b; Whitmer, 1980) have suggested components contributing to the process by which the mentally ill are criminalized. First, criminalization results from sociopolitical factors that determine policies regarding the treatment of the mentally ill. Foremost is the policy of deinstitutionalization which restricts the length of stay in hospital, has decreased hospital services, and promotes community treatment. Together, these factors result in an increase in patients in the community who formerly would have been hospitalized. Fiscal restraint and subsequent lack of services result in an increase in the number of mentally ill not receiving care (Miller, 1982).

Some believe criminalization results most directly from changes in the civil commitment laws. There are more rigorous and legal restrictions on the treatment of the mentally ill (Abramson, 1972; Lamb, 1984b; Stelovich, 1979). The changes in state mental health laws changed civil commitment from a medical to a legal procedure that narrowly defined procedures and criteria for civil commitment. These developments also legislated the right for community treatment and the right to refuse treatment. The result was that involuntary treatment was difficult to obtain for the mentally ill and, when obtained, secure custody and treatment was limited in length. This created, and continues to create, difficulties for social agencies who care for the mentally ill -- primarily a problem comprising a cycle of public disturbance, apprehension, brief involuntary treatment, release and, again, public disturbance. Thus, the mentally ill can be repeatedly returned to the community from the hospital in a similar state to that which originally brought them to the attention of public authorities.

This cycle can occur even if the criminal justice system is trying to act in concert with the mental health system. Swank and Winer (1976) noted that, even when severely psychotic persons are sent from jail to the mental health system for treatment, they return shortly to the jail: "[s]ome individuals returned to jail 4 or 5 times ... in spite of being released to a hospital on each occasion" (p. 1333).

There is a limit to public tolerance of publically disturbing and disruptive behaviour (Abramson, 1972; Aviram & Segal, 1973). This, in part, reflects a desire to find a closeted, safe, and secure place for the mentally ill. As Lamb (1984b) suggested, this is the pressure to place the mentally ill "out of sight" and thus "out of mind. Community, medical, and hospital groups will go to great lengths "to rid" themselves of the troublesome mentally ill (Rachlin et al., 1975). Patients with histories of numerous hospitalizations are unwanted by the mental health system (Chu & Trotter, 1974; Kirk

& Therrien, 1975). This position has two results: this group of the mentally ill may not receive treatment and thus continue to exhibit problems, and it eliminates or restricts agencies that deal with this problem. Once the mentally ill have been shunted through the criminal justice system, then the mental health system is no longer willing to treat them. There is an increasing number of mentally ill persons who are seen as inappropriate referrals to the mental health system. The mentally ill with criminal records are seen by the mental health system as "problem cases" (e.g., disruptive and disturbed) and are rejected by them. Thus, by default, the criminal justice system has inherited responsibility for the mentally ill (Swank & Winer, 1976).

The commission of criminal acts and socially-disruptive acts of the mentally ill requires a resolution of events and control of the person. In these cases the police are called to resolve the problem. As Bittner (1969) pointed out, the police have some creative alternatives in dealing with the mentally ill. However, in the last 20 years jailing mentally-ill persons has been the easiest and safest way of resolving the situation, especially since involuntary commitment of the mentally ill is difficult (Whitmer, 1980). This is true for both the mentally ill who are publically disruptive as well as for those who are a problem for their families. For example, Bonovitz and Guy (1979) stated that "faced with the difficulties encountered in obtaining involuntary commitment, families, probation officers, and police would resort to the more expeditious procedure of having mentally ill people arrested or jailed" (p. 1045). Teplin (1984b) found "for similiar offenses, mentally disordered citizens had a significantly greater chance of being arrested than non-mentally disordered persons" (p. 794). The mentally ill who engage in nuisance and criminal acts are controlled by being jailed (Bonovitz & Bonovitz, 1981).

In summary, the mentally ill, especially if not under active care, do engage in socially disruptive and disturbed behaviour, minor criminal activities, and acts of

violence. These behaviours usually require a disposition: a resolution of the problem through removal of the person from the community or the quick return to acceptable or normal behaviour through mental health intervention. Since the latter is difficult to accomplish and treatment may be refused, the former occurs. There are few dispositions open: the mentally ill can be located in the family, nursing homes, on their own, hospitals or jails. Since the first three locations cannot guarantee control of their behaviour and the hospitals do not want them, the only location left is the criminal justice system.

Summary

The criminalization hypothesis suggests that the mentally-ill are jailed for behaviour that could have been controlled if they had been hospitalized or under active care. This behaviour ranges from socially disruptive and bizarre actions to violence to self and others. However, for the most part, the mentally ill may be being jailed for minor criminal acts (Valdiserri et al., 1986). This becomes a serious social problem when social policy results in an increase in the number of mentally ill in the community which then leads to the mentally ill becoming an increasing presence in the criminal justice system.

In brief, the criminalization hypothesis is concerned with: (1) are the mentally ill being put into the criminal justice system? and (2) do the mentally ill receive criminal consequences that are different from other offenders?

While these views may be widely held, little direct evidence to test the criminalization hypothesis has been gathered (Teplin, 1983). There have been two major lines of enquiry on the criminalization issue: one has examined the incidence of mental illness in jails and the other has examined the arrest rates of mental hospital

patients. This research focused on the former and not on the latter. It involved the sorting out of the relation between mental illness and criminal behaviour. A relationship, as Leuchter (1981) has pointed out, that has never been clear.

CHAPTER II

MENTAL ILLNESS AND CRIMINAL BEHAVIOUR

Background

> Society has been interested in [mentally disordered offenders] and in understanding the relationship between their mental disabilities and their crimes for two major reasons: to establish criminal responsibility and to classify offenders in order to make better dispositions of them. (Beran & Toomey, 1979, p. 5)

The problem of the treatment and location of the mentally ill is highlighted when the mentally ill commit criminal offences. Mentally-ill offenders pose a special problem for the criminal justice system. Are they to be treated as offenders or patients? The focus of this study was on the number of mentally ill entering the criminal justice system, and how the criminal justice system deals with them. Historically, this phenomenon has been crystalized in two dilemmas: do we hold mentally-ill persons responsible for their actions, and where and how do we treat mentally-ill offenders? The former is reflected in trial issues such as "fitness to stand trial" and "not guilty by reason of insanity" determinations. The latter is found in dispositional issues, for example, determining the location, treatment, and length of confinement of mentally-ill offenders.

In law, everyone is presumed sane until proven otherwise. This recognizes that there are some people who are not responsible for their criminal actions due to an unsound or insane mind. This caveat is also related to the principle that only those who are culpable and responsible for their actions are punished. Those who are obviously mentally distrubed and commit crimes, and are readily identified, are not considered responsible for their actions and are not punished. They also become a fulcrum for

changes in criminal law. Those persons for whom the issue of insanity has been raised have been important in defining the basis of criminal behaviour and responsibility (Beran & Toomey, 1979).

In criminal justice proceedings the issue of mental illness can arise at any stage. Historically, three stages in these proceedings have been important in defining the relationship of mental illness to criminal behaviour. These are: (1) at the time of the offence - the insanity issue, (2) at the time of trial - the fitness to stand trial issue, and (3) at the time of sentencing. These procedures also serve to identify some of the mentally-ill offenders entering the criminal justice system.

Criminal responsibility

The first identified issue was the determination of insanity at the time of the offence, which influenced the understanding of criminal intent and responsibility. Both Roman law (Deutsch, 1945) and early English common law (Gleuk, 1925), which are the foundation of modern law, excused criminal intent and responsibility for those who are insane (Beran & Toomey, 1979). The definition of insanity is the key to this determination. The relevant definition in the Canadian Criminal Code is:

> 16(2) For the purposes of this section a person is insane when the person is in a state of natural imbecility or has disease of the mind to an extent that renders the person incapable of appreciating the nature and quality of an act or omission or of knowing that an act or omission is wrong.
>
> 16(3) A person who has specific delusions, but is in other respects sane, shall not be acquitted on the ground of insanity unless the delusions caused that person to believe in the existence of a state of things that, if it existed, would have justified or excused his act or omission.

The focus, at this stage in criminal proceedings, is on how insanity, that is, as a disease of the mind, is related to the types and effects of mental illness. This determination and definition is a legal issue not a psychiatric one (Schiffer, 1978).

The importance of the criminal responsiblity issue for this study is that it specifies how mentally-ill offenders can be identified at this point in the criminal justice system. In terms of this issue, mental illness is a factor in criminal proceedings only when the mental illness is specifically related to the commission of the criminal act. In practical terms, for a person to be insane he must be chronically and severely mentally ill at the time of the offence (e.g., schizophrenic). The insanity determination identifies a specific subclass of mentally-ill offenders who can be found in specific sites in the criminal justice system.

However, a person can be mentally-ill at the time of the criminal act but not legally insane. As well, the offender's mental illness may be in remission at the time of the act. Also, an offender can be mentally ill but the issue of insanity may not be raised. In all of these examples, these mentally-ill offenders are not identified through the judicial procedure to determine insanity. There are mentally-ill offenders for whom this issue is not raised.

Competency to stand trial

A trial is an adversarial procedure: justice is predicated on the fact that the accused has the mental capacity to defend himself against prosecution. In order to be found guilty of an offence, criminal law assumes that the accused can make an informed and adequate defence or instruct someone else to do so. The inability to do so, whether due to emotional or mental disabilities, interferes with the defendant's right to a fair trial (Grisso, 1986) and invalidates criminal proceedings against him (Matthews, 1970). This issue refers to the defendant's competency to stand trial: his competence to either waive his defence (i.e., plead guilty), to construct his own defence, or to instruct his counsel.

Canadian law spells out the requirement of law to examine the fitness of the accused, the discretion of the judge in trying the issue, the test of fitness, the onus of proof, and the disposition of the unfit defendent (Schiffer, 1978). The relevant passage from the Criminal Code of Canada states:

> 615(1) A court, judge, or provincial court judge may, at any time before verdict, where it appears that there is sufficient reason to doubt that the accused is, on account of insanity, capable of conducting his defence, direct that an issue be tried whether the accused is then, on account of insanity, unfit to stand his trial.

At arraignment or preliminary enquirey, the judge's opinion needs to be supported by medical evidence of mental illness (cf. CCC 537(1)). Lindsay (1977) described the interpretation of these statutes in Canadian common law and case law as:

> 1. does the accused understand the nature and object of proceedings...2. does the accused understand what his relationship is to the proceedings...3. is the accused able to assist in his defence. (pp. 145-146)

The focus in the Canadian Criminal Code is on insanity as identified when an accused is mentally-ill. This mental illness must interfere with the accused's capacity to understand the court proceedings and assist in his defence. In the Canadian context, as well as in the U.S., it is unclear how traditional psychiatric assessments that identify mental illness are able to assess the fitness issue (Roesch, Eaves, Sollmer, et al., 1981). This can result in a lack of systematic identification of mentally-ill offenders.

In terms of this issue, the defendent's mental illness influences criminal law proceedings when the mental illness significantly interferes with the defendant's ability to direct his defence. Usually this only occurs in very acute and severe forms of psychoses. Defendants who are mentally ill can still be capable of directing their defence. Also, a defendant may be mentally healthy at the time of the offence or his illness may be in remission at that time, but the jail experience triggers an underlying

disorder or manifests a predisposition for a mental disorder which renders him unfit to stand trial. In any case, the issue of fitness to stand trial applies to very few defendants and this subclass represents a small proportion of mentally-ill offenders (Stone, 1975).

As with the insanity issue, the fitness to stand trial issue serves to define the relation between mental illness and criminal law and criminal behaviour. Again, a specific subclass of mentally-ill offenders are identified. This group can be found at traditional sites that determine this issue: forensic hospitals and clinics.

Sentenced mentally-ill offenders

Unlike the previous two categories which attempt to specifically define the relation of mental illness to criminal behaviour and criminal proceedings and, therefore, serve to identify mentally-ill offenders, the identification of mentally-ill offenders at sentencing is less clear. The Criminal Code of Canada has a specific section which obligates the trial judge to order a psychiatric assessment prior to sentencing if there is any sign of mental illness (Schiffer, 1978). However, Canadian law does not have a specific or special sentence for mentally-ill offenders. Similiar to the United States with its psychopath and sexual psychopath statutes, Canadian law has dangerous offender legislation. These statutes serve to induce special sentences for designated offenders. It is unclear, however, how these categorizations relate to identifying mentally ill offenders, other than that it is for the identification of psychopathic characteristics and that psychiatric assessment is entailed in these judical determinations. The main focus of these statutes is on severe personality disorders (i.e., psychopathic) rather than on severe chronic mental illness (e.g., psychoses).

In Canada, specific sites in federal prisons (Regional Psychiatric Centers) have been developed to treat mentally-ill offenders who are identified at sentencing and have

not been excluded from the criminal justice system through fitness or insanity criteria. Also, they serve to treat those offenders who become mentally ill after sentencing. However, these sites also treat other offenders (e.g., offenders with temper control problems, sexual offenders) and therefore do not represent a distinct subclass of mentally-ill offenders. In short, sentencing procedures and the manifestation of mental illness during sentence lead to the identification of mentally-ill offenders, but do little to delineate the relation of mental illness to criminal behaviour.

Conclusion

In summary, the relation between mental illness and the criminal justice system has, historically, entailed the development of specific legal tests that attempt to solve the dispositional problems of the criminal justice system with mentally-ill defendents and offenders. This has evolved into special categories of offenders. These procedures have had three results. First, they are a means to identifying specific classes of mentally-ill offenders. Second, they result in special treatment of mentally-ill offenders. Specific criminal justice and mental health system sites (e.g., forensic hospitals) have been developed to locate offenders while evidence is gathered for the judicial determination of these issues. Third, mentally-ill offenders are not always identified by these procedures because identification is based on meeting legal criteria rather than meeting psychiatric criteria.

While these developments were instrumental in defining the relationships among mental illness, criminal behaviour, and criminal proceedings they have also led to restricted view of these relationships. Trial proceedings have led to a narrow and rigorous definition of the relation between mental illness and criminal behaviour, and between mental illness and criminal proceedings. The legal definitions only allow for limited identification and recognition of mentally-ill offenders. It only describes a small

proportion of those in the total population who fall into the intersection of the mental health system and the criminal justice system. Thus, the relationship may be more pervasive than found in specific legal issues and, therefore, the number of mentally-ill offenders may be more than the number who are identified through these specific legal issues.

Mental illness and criminal behaviour

> Important problems arise in trying to establish a causal relationship between mental disorders and criminality, since the term "mental disorder" can refer to a broad range of disabilities and can encompass highly divergent behaviours...Similiar definitional problems arise in respect to criminality. At its simplist [sic], crime is merely that form of behaviour defined as illegal by the criminal law. At various times in history, acts judged as criminal have been re-defined or even removed from the statute book (for example, homosexuality and suicide). (Prins, 1980, p. 421)
>
> Other studies are consistent with the view that these are in large measure alternative methods of dealing with two, if not identical, then largely overlapping groups. (Stone, 1975, pp. 6-7)

Introduction

The relation between mental illness and criminal behaviour entails a number of problems. As noted in the previous section, a person's mental state has a tremendous impact on criminal justice decision making and disposition. General criteria have defined how a person's mental status influences judicial decisions. These criteria also serve to identify mentally-ill offenders at specific points in the criminal justice system. However, there are still problems in the determination of mental status that are specifically relevant to the legal issue (e.g., specific methods for determining insanity). There are also problems in delineating general theoretical and practical aspects of the relation between mental illness and criminal behaviour. Furthermore, these procedures may only identify a specific subclass of mentally-ill offenders and there may be

mentally-ill offenders in the criminal justice system that are not identified through these procedures (Uhlig, 1976).

One reason for these problems is that mental illness and criminal behaviour are representative of two distinct classification systems of human behaviour that intersect but do not share a common language, method, or goals (Ciccone & Barry, 1976). For example, insanity is a legal concept that does not have a strict psychiatric counterpart. Also, "psychosis" does not equal "insanity". However, examination of the relation between mental illness and criminal behaviour is necessary because of three issues.

First, as discussed above, there is the issue of the mental state of the accused or offender and how this status influences criminal justice decision-making and dispositions. The second issue focuses on the attempts to find the causes of criminal behaviour. Since theories of mental illness are used to explain psychological and social deviance, it has been thought that these theories could be used to explain criminal behaviour (cf. Guze, 1976; Whitlock, 1963). The last issue involves the occurrence of the mentally ill in the criminal justice system, and finding an explanation for this occurrence.

This study was primarily concerned with the last issue: how many mentally-ill persons are there in the criminal justice system? The issue regarding psychosocial explanations of criminal behaviour was not addressed. The first issue is only addressed in that criminal justice decision-making influences the number of mentally-ill inmates located in jails, and some criminal justice system locations are specifically developed for the determination of legal and mental status and therefore identify a number of mentally-ill offenders.

Definitions

As noted above, there are specific occasions where a person is identified as a mentally-ill offender. In general, "mentally ill" and "offender" are labels applied to people who meet certain psychiatric and legal criteria, respectively. The obvious overlap between these two concepts and classification systems occurs when a behaviour meets both criteria: both mad and bad (Guy, Platt, Zwerling, et al., 1985; Stone, 1975).

Psychopathology is the study of abnormal, maladaptive, disordered, or deviant cognitions, affects or behaviours. It is the study of persons who engage in behaviour that is a source of undue stress, detriment, or threat to themselves, their family, or society. The term "mental illness", in its broadest sense, serves to identify and label a specific set of these affects, behaviours, and cognitions that have negative consequences to oneself or others. In North America, diagnostic systems (e.g., American Psychiatric Association's Diagnostic & Statistical Manual (1980)) provide criteria for specific sets of conditions that are labelled mental illnesses.

Criminal behaviour consists of that behaviour, voluntary or involuntary, through acts of commission or omission, that violate the codified laws of a society. As Prins (1980) suggested, criminal behaviour is that behaviour that is defined (i.e., codified) as illegal.

Historically, the relation between psychopathology and criminal behaviour has focused on two types of mental illness: (1) psychosis and criminal behaviour, and (2) psychopathic personality and criminal behaviour. The main thrust of research has been in the latter area. For example, Pinel described mania without delirum to account for strange violent behaviour. Pritchard (1837) described some prisoners who had a special type of insanity: a form of mental derangement observed in feelings, temper, or habit where moral principles were depraved; they had lost the ability to govern themselves

but were shrewd and voluble. Cleckly (1964) described psychopaths as having no sense of shame or regret, and having a lack of affective relations that limit antisocial behaviour. All in all, psychological explanations look at either the importance of predisposing individual differences, learned behaviours, or the interactions of personal characteristics with situational factors, in order to account for criminal behaviour (cf. Feldman, 1977).

The focus of this study was on the first group: those with severe and chronic mental disorders and their criminal behaviours. The relation of these two characteristics is complex. Although research in areas such as the plight of the chronically mentally ill and how they enter the criminal justice system (e.g., Teplin 1984a) and hospital studies on the patients with major mental illness, alcohol and drug disorders and criminal proclivity (as represented by an antisocial personality disorder) (e.g., Reich, 1985) help to understand this relation between major mental illness and criminal behaviour, it has been difficult to delineate this relationship.

The intersection of mental illness and criminal behaviour

Problems arise in sorting out the theoretical and practical relations between mental illness and criminality because there is a set of behaviours (e.g., bizarre or publically disturbing actions) that represent mental illness as well as being defined as illegal behaviour. These are two classification systems (sets) that intersect for a certain class of behaviours: the problem lies in the union of these two sets (Figure 2.1). [1] Stone (1975) proposed a similiar Venn diagram to describe the intersection of "mad, bad and normal" behaviour (p. 6).

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[1] Figures and tables are labelled in the following way: The first number, for example, 2 in Figure 2.1 refers to the chapter the figure or table is in, the second number, for example, 1 in Figure 2.1 refers to the figure or table number within that chapter. For example, Table 7.26 refers to the 26th table in chapter 7.

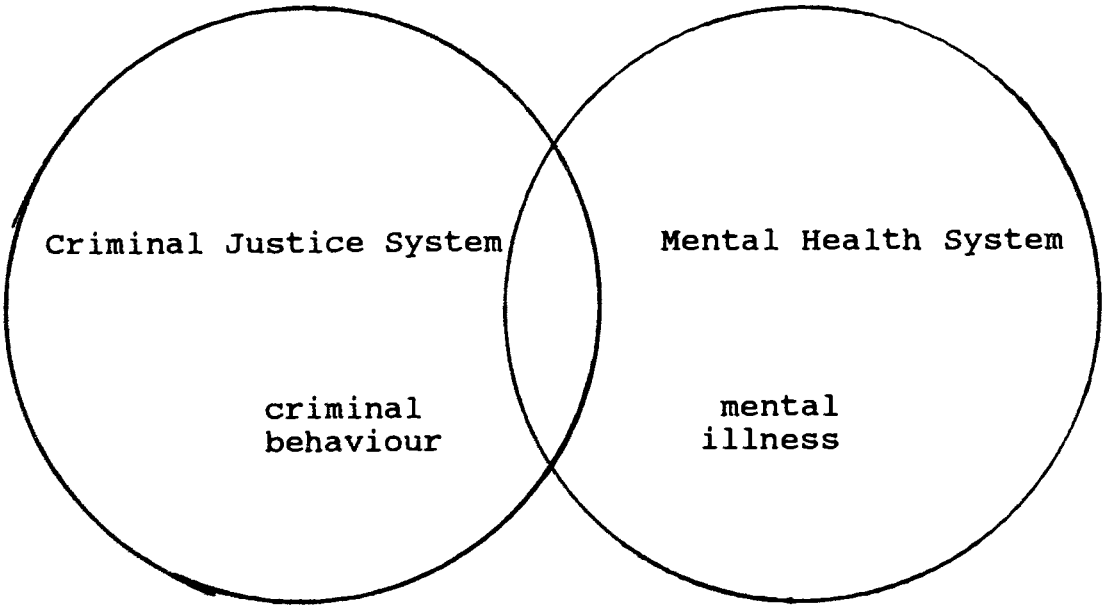

Figure 2.1: The intersection of two classification systems.

In general, these two sets can refer to (and be defined by) two different classificatory systems for behaviours or persons. The intersection can refer to behaviour that is indicative of both criminal behaviour and mentally-ill behaviour, the criminal and psychiatric status of persons, and criminal and psychiatric explanations of the behaviour.

To illustrate: when an individual willfully damages property he is charged with Mischief (CCC 387(1)). However, when examined, the individual states that he was obeying a voice that instructed him to break the window. Thus, he implies that an auditory hallucination was the reason for his behaviour. Auditory hallucinations fall within the domain of mental disorders, and he might be diagnosed as mentally ill (e.g., schizophrenic). However, the same behaviour violates the criminal code and may lead to his being found guilty of Mischief. Thus, the same behaviour falls within the intersection of the criminal and psychiatric domains.

Theoretically, the intersection identifies those persons meeting both legal and psychopathological criteria. Practically, the persons in the intersection have usually been identified through specific legal events. There are three important considerations

regarding the identification of those in this intersection. First, this intersection may not represent a a single homogeneous group. Subclasses of this group are identified through formal criminal justice system procedures: as seen in the previous section, insanity, fitness, and sentencing issues may classify subgroups of mentally-ill offenders. There may also be diagnostic subgroups within this group that differ greatly in their legal and criminal status. As will be seen later, the referral procedure and the purpose of the assessment influence the prevalence rates of mental illness at particular criminal justice system sites.

Second, despite formal procedures, methods, and stages to identify the mentally ill in the criminal justice system, there are many mentally-ill offenders that are unidentified (James & Gregory, 1980; James, Gregory, Jones, et al., 1980; Leuchter, 1981). These methods and criteria may even fail to identify offenders with severe psychotic disorders (James, Gregory, Jones, et al., 1980). As Uhlig (1976) and Leuchter (1981) have suggested this is either due to the fact that their crimes are not important enough to warrant examination for mental illness, their mental illness is not visible enough, or their mental illness does not meet the stringent criteria for exclusion through legal tests. Therefore, there are an unknown number of persons contained within the intersection of the criminal and mental health systems. This group consists of both mentally-ill offenders identified through formal legal processes and those who slip unnoticed through the jail door.

Third, the relation between the two systems is not static. The intersecting lines are constantly shifting, and thus the size of the groups change as definitions and public policy change. As Beigel (1973) pointed out: "because of the vague and shifting definition of deviancy sometimes only a fine line separates individuals referred to the mental health system from those referred to the law enforcement and judicial systems"

(p. 605). Beran and Hotz (1984a) have observed that "a pool of deviants exists, and that whether particular deviants are labelled mentally-ill or criminal depends less on their intrinsic natures or behaviours than on larger systemic pressures" (p. 588).

In summary, there may be a variety of mentally-ill offenders in the criminal justice system. The actual number is unknown. There is the perception that this number is growing due to changes in public policy that either deliver more mentally-ill persons into the intersection or have changed the crossing points of the intersection to include more "mad and bad" behaviour. A great deal of controversy has arisen in explaining the increase in the number of people who are both "mad and bad". Two different views (i.e., criminalization vs. psychiatrization) have attempted to explain this apparent increase in mentally-ill offenders.

Criminalization versus psychiatrization

There is controversery about whether criminal behaviour is being psychiatrized (Monohan, 1973; Sadoff, 1978; Stone, 1975) or medicalized (Ehrenreich & Ehrenreich, 1974; Melick, Steadman & Cocozza, 1979). Controversy has arisen because both the criminal and psychiatric systems explain the same behaviour. Also, problems arise because both the criminal justice system and the mental health system lay claim to jurisdiction over this behaviour. As Monohan (1973) pointed out, each system attempts to assert its authority in the intervention and treatment of this behaviour. [2] Thus, there are adherents to each position who propose hypotheses to explain this increase in mentally-ill offenders. These hypotheses and studies in turn provide support for each system's jurisdiction over the phenomenon. As reviewed the previous chapter, the criminalization hypothesis is one viewpoint regarding the problem of the mentally-ill in

[2] Or perhaps, in this day of shrinking resources and budgets, to divest their authority and responsibility for these people and their problematic behaviour.

jail. The other viewpoint is the psychiatrization (Monohan, 1973) or medicalization (Melick et al., 1979) of criminal behaviour.

In review, the criminalization hypothesis states that, because more psychiatric patients are being released (deinstitutionalized) and are not being properly cared for in the community, there are a greater number of people in the community who exhibit criminal or publically disruptive behaviour as a result of their mental illness. They then enter the criminal justice system rather than being hospitalized. The criminalization argument states that the problem behaviour (e.g., criminal actions) is a result of an underlying illness and, therefore, it is unfair that the person is punished for behaviour that is out of his control. Furthermore, some mentally ill may be criminalized by being arrested and remanded in situations and for crimes that others would be arrested and remanded for. Therefore, there is a biased intervention. The result is that the mentally ill will not receive the treatment they require through a criminal disposition.

In contrast, Ehrenreich and Ehrenreich (1974) stated that the jurisdiction of medicine has expanded. The psychiatrization hypothesis claims that the definition of mental illness has expanded so that more and more criminal behaviour is seen as being a result of psychiatric problems. More importantly, behaviour that was previously defined as being simply criminal is now also being identified as mental illness (e.g., drug usage, antisocial personality). Thus, persons who were previously identified as criminal are now also being diagnosed as being mentally ill. Therefore, more people that have criminal records are ending up in mental hospitals (Melick et al., 1979; Steadman, Cocozza, & Melick, 1978). Furthermore, the psychiatrization argument implies that the behaviour is a criminal act and should be dealt with in the criminal courts, and that psychiatric intervention is inappropriate.

Guy et al. (1985) noted there has been a decriminalization of some offences, for example, "public drunkeness" and "drunk and disorderly". These events were previously seen as offences and the person would have been sent to jail to "sleep it off" or would have had a thirty day sentence to "dry out". But there is now more pressure to see these offences as behavioural manifestations of a mental health problem with a concomitant view to treat this as an illness and to enter the person into the mental health system instead of into a jail.

It may be that both views are valid. More mentally-ill persons are in the community and are at risk for committing offences: due either to the pressures of the environment they are in or to the characteristics of their disorder. Also, definitions of mental illness have changed. Now more behaviours that previously were considered simply criminal (e.g., theft) are considered indicative of mental illness (e.g., the antisocial personality disorder). Mental health problems (e.g., drug usage) are now, in and of themselves, illegal. The occurence of a drug problem, such as heroin addiction, necessarily creates a criminal act (e.g., possession of a narcotic). It is important to note that this controversy may have arisen because each view is focusing on a different aspect of this intersection: looking at different subgroups of the mentally-ill criminal. The criminalization hypothesis is primarily concerned with the fate of the chronically and severely mentally ill. The psychiatrization view is more concerned with the designation of non-psychotic mental illness (e.g., personality disorders or substance abuse) and the impact of these labels on criminal justice system processes. Disregarding the nosological problems, this research is simply concerned with the fact that some people, as a part of, or as a result of, their mental illness, come into conflict with the law. It is necessary to first determine the extent and nature of the intersection of the two domains. This study attempted to address this issue at a particular site in the criminal justice system.

Conclusion

The major issue is how large is this intersection: how many persons are represented in the union of the two sets, especially in criminal populations that have not been formally identified as mentally-ill? As noted previously, there is the concern that this number is growing due to the criminalization of the mentally ill.

The intersection of these two sets and the number of people it defines is of more than theoretical interest. There are practical consequences from this intersection and the number of people who are represented by it.

A number of practical issues arise: There are human issues--who are these people and what sorts of problems do they have? There are clinical issues--what sorts of treatment do we need to provide for them, and are there problems in providing this treatment resulting from their membership in both groups (i.e., the mental health system and the criminal justice system)? There are management issues--do these people create special problems for staff who are in charge of them? For example, do prison staff have unique problems with chronic mentally-ill prisoners, or do hospital staff have special problems with antisocial mental patients. Finally, there are practical social policy issues--who is responsible for them and do we need to provide special programmes for this population (cf. Corrado, Doherty & Glackman, 1989)? All in all, this intersection represents a group of people who may need specialized services or programmes. Furthermore, their presence may result in problems for either social service system.

In order to get an estimate of the extent of this problem and to determine whether or not mentally-ill persons have been criminalized, research has focused on examining the involvement of persons in both systems. This has led to research, in a

number of sites, on the presence of those who have both a mental illness and a criminal history.

Identification of mentally-ill offenders

> Mentally disordered offenders...describe a number of people who have been differentially identified in both the mental health and criminal justice system. These individuals share two common characteristics: All have come before the courts accused of some violation of the criminal law and all have had their mental health status questioned at some time during the process. They differ in the type and severity of mental disability as well as in their status before the courts. The individual may be mentally retarded, psychotic, or diagnosed as having a personality disorder. He or she may be at pretrial, at trial, a convicted offender-presentence, or a convicted offender serving time. (Beran & Toomey, 1977, p. 5)

The mentally ill entering the criminal justice system are those who meet both criminal and mental health criteria. They can be identified through formal legal procedures or may remain unidentified at any stage or site in the criminal justice system. Two basic areas of enquiry have been used to examine the change in the prevalence of mentally ill offenders.

One area examines the prevalence of those in the mental health system who have criminal histories: both prior to admission and after discharge from the mental health system. Essentially, researchers in this area have examined the movement of persons between the criminal justice system, the mental health system, and the community. For example, research on the changes in the arrest rates of mental patients or the mental hospitalization rates of offenders (see Steadman and associates (1978, 1981, 1984) research) has examined this issue. The second area of research is primarily epidemiological: determining the prevalence of mental illness within inmate populations at different points in the criminal justice system. While both provide evidence with respect to the criminalization issue, the present study focused on the

latter area of enquiry: the prevalence of mentally-ill offenders in the criminal justice system.

Outline

The major difficulty in reviewing the research on the prevalence of mental illness in the criminal justice system is that previous reviews have collapsed the results from various sites in the criminal justice system (cf., Coid, 1984; Guze, 1976; Orr, 1978; Prins, 1980; Teplin, 1983). Epidemiological studies measured mental illness at different points in the criminal justice system, but the importance of this distinction has not always been noted when discussing the meaning of differences in results. In order to simplify the research, and to make comparisons of research results more meaningful, Figure 2.2 outlines a flow chart that follows the path of offenders once they have entered the criminal justice system: from arrest to trial to sentence to release.

Figure 2.2 identifies specific decision-making points (e.g., arrest, arraignment, remand for fitness to stand trial) in criminal proceedings. It also represents specific sites where an offender can be located in the criminal justice system (e.g, city jail, forensic hospital, penitentiary). The outline was important in the present research because it identifies both the sites and the decision-making points in the criminal justice system. These can be used to identify mentally-ill offenders. Also, these steps identify decision making points that operate to criminalize mentally-ill offenders.

Entry into the criminal justice system necessarily involves police action. The initial step occurs when a possibly criminal action occurs in the community (step 1) and the police are called to investigate that possibly criminal action (step 2). At this junction, the police have a number of dispositional options open to them. They

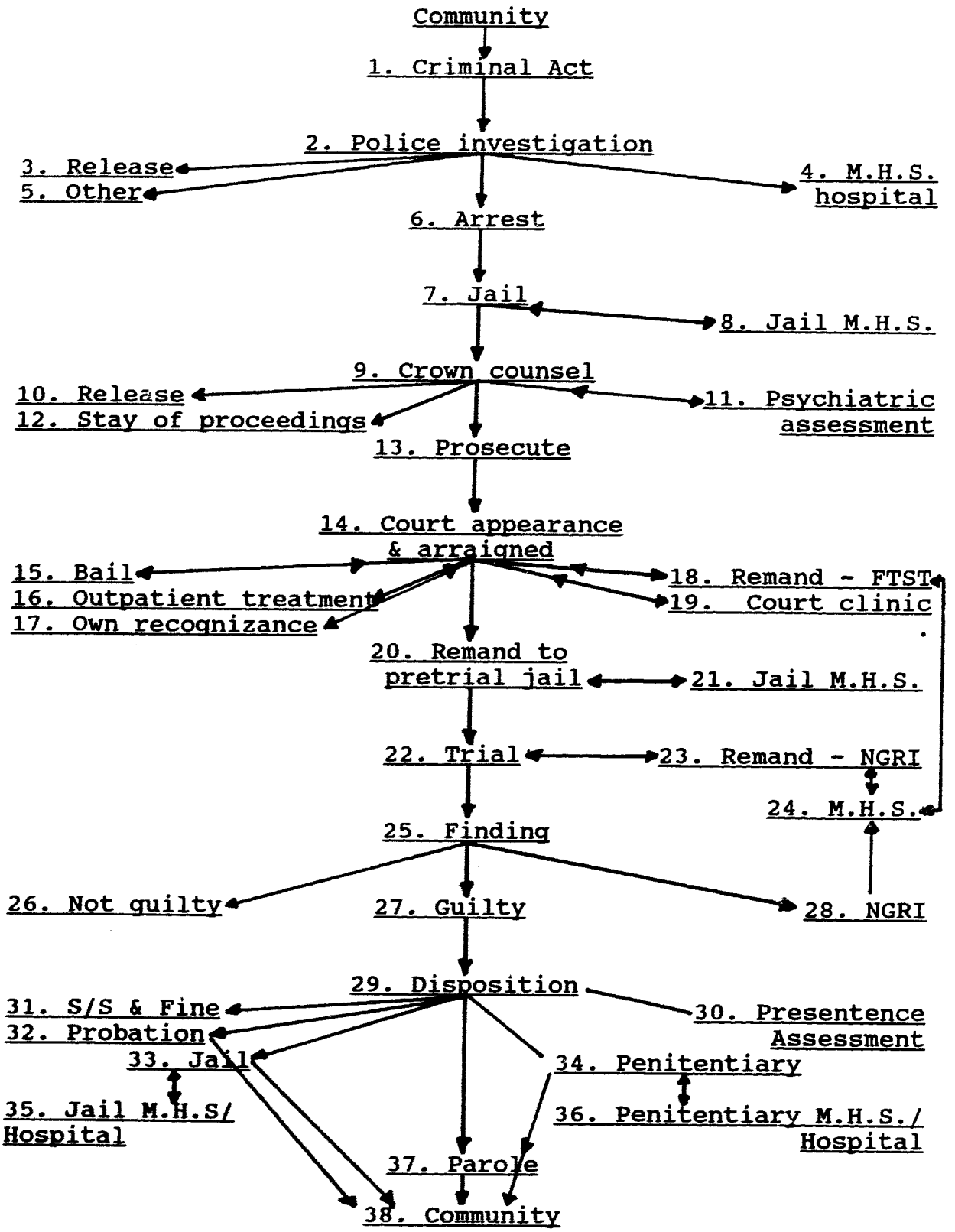

Figure 2.2 : Criminal justice system flowchart

may decide to do nothing (i.e., release the suspect) (step 3) or to use an informal disposition (e.g., return the suspect to his nursing home) (step 5). They may take, refer, or send the suspect to the mental health system, usually by way of a psychiatric emergency ward at a local hospital (step 4), for psychiatric assessment to lead to civil commitment. Alternatively, the police may decide to arrest the suspect (step 6) and bring him to jail (step 7). Up to this stage these steps have outlined some of the movements of the mentally ill among the community, the mental health system, and the criminal justice system. With incarceration, the mentally ill have entered the criminal justice system.

A suspect is "booked" at a city or local jail (step 7) until formal charges are laid at court. Psychological or psychiatric assessment can take place for all, or for referred, inmates through jail mental health services (step 8). This assessment can serve to divert mentally ill offenders from the criminal justice system to the mental health system by civil commitment into a hospital. This diversion is done in conjunction with the police and crown counsel (step 9).

Crown counsel or, in the United States, the state prosecutor, have a decision to make regarding what to do with the information laid by the police to their office. They have a number of options before them. They may decide, if there is evidence and need to prosecute the suspect, to proceed with the charges (step 13). Crown counsel may also ask for a pretrial general psychiatric assessment (step 11) to consider issues such as diversion through civil commitment, and to preview legal issues such as fitness to stand trial and insanity. At this point, alternative options include: to release the suspect (step 10), to stay the charges and proceedings against the suspect (step 12), or to proceed with the charges (step 13).

At step 14 the accused appears in court for arraignment: to hear the charges against him, to enter a plea, and to have a trial date set. Depending on the charge(s), and if a plea is entered, criminal proceedings can move to trial (step 22) and finding of the facts (step 25). Usually a date is set for the accused to appear in court and the arraigning judge has a number of options before him or her. She may set bail (step 15), send the accused to outpatient psychiatric treatment as a condition of bail (step 16) (e.g., at a forensic clinic), or release the accused on his own recognizance (step 17). The last alternative is to not set bail or release the accused (or bail is not met) but, instead, to remand the accused to await trial in jail (step 20) (e.g., in the Vancouver Pretrial Services Centre). It is at this point that legal issue regarding the accused's fitness to stand trial (FTST) can first be raised. If the judge questions the accused's fitness to stand trial, he can order a remand for assessment of this issue (step 18), usually at a forensic hospital. The length of time for this remand varies within jurisdictions but it is usually for thirty days.

A remand to determine fitness to stand trial can take place at any time after this stage. This issue can be raised while the accused is at jail (step 20) and any time during the trial (step 22). If, during the trial, the accused is deemed unfit to stand trial, he is then sent to a mental health facility until he becomes fit to stand trial.

An interesting historical development has been the court clinic (step 19) which is a mental health service attached to the court. This provides the arraigning judge with psychological or psychiatric information regarding the accused. Originally, this was done for all accused appearing in court. For example, this information may be used in deciding custody or release alternatives for awaiting trial (steps 15, 16, 17, 18, or 20). However, court clinics have nearly all been replaced with forensic clinics which also

address a number of other issues (e.g., treatment while on bail, pre-sentence reports) although the former still exists in some jurisdictions.

Jail mental health services are usually located within the jail (step 21) and primarily focus on treating referred inmates.

The defendent's trial of the fact occurs at step 22. It is at this stage that the formal legal issue regarding criminal responsibility (i.e., insanity) can be raised. The trial judge can remand the defendent to determine whether the person was insane at the time of the commision of the act and thus not guilty be reason of insanity (NGRI) (step 23). This remand is usually to a forensic hospital, but this assessment can take place at the remand jail (step 20). After the assessment the defendent is returned to court.

The trial by jury or judge leads to a finding of fact (step 25) which results in different dispositional alternatives: a verdict of not guilty and the defendent is released (step 26), a finding of guilty (step 27) and he is returned to the criminal justice system, or a finding of not guilty by reason of insanity (NGRI) (step 28). Those NGRI defendents are then usually located at a forensic hospital (step 24) under orders of a special act or as part of the criminal code (e.g., under warrant of the Lieutenant Governor of the Province).

A finding of guilty leads the court to a judicial disposition (step 29). A pre-sentence psychological or psychiatric assessment can be asked for at this time (step 30), usually through a forensic clinic (e.g., outpatient clinic) or at the remand jail. In addition, a remand to determine the offender's fitness to receive sentencing can take place at the dispositional stage. In Canada and the United States, the forensic hospital has been the traditional site for these assessments. In Canada, some dispositions

include: a suspended sentence or fine (step 31), probation (step 32) with or without psychiatric treatment, a provincial jail term (step 33) (i.e., a sentence less than 2 years), or a federal penitentiary term (step 34) (i.e., a sentence of 2 years or more).

Step 35 identifies provincial jail mental health services and step 36 indicates federal penitentiary mental health services and penitentiary psychiatric hospitals (e.g., the Regional Psychiatric Centre) that serve to treat mentally-ill offenders under sentencing directions or those offenders who become mentally-ill while incarcerated.

Step 37 refers to offenders released on parole through mandatory supervision (in Canada after 2/3 of sentence length) for both provincial and federal parole, or through granting of full parole by the parole board. At this stage, the offender is moved back into the community and will stay there unless is parole is revoked. However, decisions regarding parole conditions such as need for treatment, residence, etc., and the movement to less and less supervision occur at step 37. Eventually, all criminal dispositions come to conclusion and the offender becomes independent of criminal justice system intervention (step 39).

Identification of criminalization in the criminal justice system

This flow-chart can serve to identify points in the criminal justice system where criminalization of the mentally ill may take place. As mentioned above, evidence of criminalization may take two forms: (1) an increased number of mentally-ill offenders in the criminal justice system, and (2) differences between mentally-ill and non-mentally-ill offenders in criminal justice system decisions and consequences.

At step 1 of the flowchart, we could determine if mentally-ill persons do commit more criminal acts. This information would provide a base rate for other comparisons in the criminal justice system. For example, it may be that mentally-ill persons simply

engage in more criminal activities than do non-mentally-ill persons and their increased rates in the criminal justice system is due to this initial difference. At step 2, evidence of criminalization would be found in the police arresting a disproportionate number of mentally-ill suspects in comparison to non-mentally-ill suspects.

In the initial jail (e.g., police cells) (step 7), we could look for the prevalence rates of mental illness in "booked" suspects. At step 9, Crown counsel faces a decision regarding whether to proceed with charges and prosecute or to resolve the issue through other alternatives (steps 10 & 12). Evidence of criminalization would be found in Crown counsel's differential decision based on the mental status of the suspect. For example, do a disproportionate number of mentally-ill suspects have charges proceeded with in comparison to non-mentally-ill suspects?

The first appearance for arraignment (step 14) and the decisions arising from this appearance before Court identify critical issues in the possible criminalization of the mentally ill. One of the most important decisions is for the judge to determine whether the accused is to be remanded to jail to await trial (step 20) or be given a conditional or unconditional release to then appear before Court on a specified date. Does the mental status of the accused, whether based on information provided by Crown or on the accused's presentation in court, affect the judge's decision for release or remand? Given all things being equal (e.g., types of charges and criminal histories), if a disproportionally higher number of mentally-ill accused are remanded to jail to await trial than non-mentally-ill accused this may be evidence for criminalization. As noted previously, this is not to say that the judge does not have good reason to remand the mentally ill to jail to await trial (e.g., the judge may believe the mentally ill are less likely to appear at a future trial date if released), but that the criminal justice system has a differential response, at this decision point, to the mentally ill.

Evidence for a disporportionate number of mentally ill in the criminal justice system could be found in prevalence rates in the pre-trial jail (step 20). Differential responses to the mentally-ill inmates while in this jail could also provide evidence pertinent to this issue. For example, do mentally-ill inmates serve more remand time than non-mentally-ill inmates? Does the corrections system (e.g., correctional officers) have a differential response to their behaviour while serving remand time (e.g., informal punishments)?

The sites for the determinations of fitness to stand trial (step 18) and insanity (NGRI) (step 23)--forensic clinics and hospitals (step 24)--have been traditional places where this issue has been examined. Prevalence rates of mental illness, characteristics of mentally-ill inmates, and characteristics of those remanded for these assessments (e.g., Roesch et al., 1989) have all been examined in attempts to shed light on this issue.

The trial process (step 22) and the finding of fact (25) with the results (steps 26-28) are other important decision points in the criminal justice system. The criminalization issue at these points is whether or not the mentally ill are treated any differently during the trial process of the finding of fact or in the decision that is made. Obviously, an accused's mental status at the time of the offence may determine the decision reached: that is, to be found not guilty by reason of insanity. However, as noted previously, this issue is rarely raised. More importantly, does the fact that someone is mentally-ill influence this process and result? For example, are a disproportionately higher number of mentally-ill accuseds found guilty than their non-mentally-ill counterparts? Are these results for trials by judge and juries different from the results for trials by judges alone?

Another major decision is found at disposition where the judge sentences the offender (step 29). Since this is an area for the judge to exercise discretion (as the

police did in step 2) because of the sentencing options available, there is a great deal of room for the mental health status of the offender to influence this decision. For example, do mentally-ill offenders receive longer sentences?

Jail sites (step 33) and penitentiary sites (step 34) offer populations where we can determine the prevalence of mental illness and compare it to the general population. As mentioned above, within these sites there is the opportunity for correctional system decisions to take place. In these sites we could examine evidence for criminalization by looking both at prevalence rates and at differential responses by corrections personnel to the mentally-ill inmate.

Historically, jail and penitentiary mental health services and psychiatric hospitals (steps 35 & 36) have been other important sites where the relation between criminal behaviour and mental illness has been examined.

The final decisions about offenders, and the sites where one can find them, occurs in probation and parole settings. The criminalization issue would examine evidence of a difference in these decisions (e.g., whether or not to grant parole) based on, or influenced by, whether the offender is mentally-ill or not. For example, are mentally-ill offenders turned down for parole more frequently? Are they more likely to receive more onerous parole conditions (e.g., in reporting requirements)? Finally, what are the prevalence rates of mental illness in parolee or probationary populations?

This section serves as a guide for examining the evidence for criminalization. The questions outlined above are only representative, and are a small number, of those that can be raised. What they do illustrate, however, is that these issues have to be identified at either specific sites or at specific decision points. As mentioned above, one of the problems of previous research and reviews is that they have compared results

from different sites and at different decision points together. These must be kept separate. Criminalization at one point can be different from that defined at another point. For example, more onerous criminal justice system involvement found in the decision to prosecute may be evidence for criminalization, but more onerous criminal justice system involvement found in a remand for fitness to stand trial may be evidence against criminalization: the former involves the mentally-ill accused more in the criminal justice system while the latter may take the mentally-ill accused out of the criminal justice system. This example serves to note that evidence of criminalization calls for careful examination of both the decision being made and the results of that decision.

Summary

This chapter reviewed basic issues in the relation of mental illness to criminal behaviour. It focused on the nature of the mentally-ill criminal. Specific tests and legal procedures can serve to identify mentally-ill offenders, but, for the most part, they are not so identified. We know there are the mentally-ill individuals in the criminal justice system, but do not know how many

More importantly, there is the hypothesis that the mentally ill are being criminalized. That is, there is a bias in the criminal justice system such that the mentally ill are more likely to enter the criminal justice system. Whether or not this bias is necessary is not the issue. The simple issue is do the mentally ill receive more onerous criminal consequences for their criminal actions than do non-mentally-ill persons?

One way to sort out these issues is to look for two types of data at different sites in the criminal justice system: the prevalence of mentally-ill offenders in criminal justice system sites, and the differences between the mentally-ill offenders and non-mentally-ill offenders with respect to criminal justice decisions and consequences. The following

chapter examines the previous research on these issues at specific criminal justice system sites: police investigation (step 2), court cohorts (steps 14, 19, 22, 29), forensic clinics and hospitals (steps 18, 23,24), jails and prisons (steps 20, 33,34), jail and prison mental health services and psychiatric hospitals (steps 26, 35,26), and probation and parole (steps 32, 37).

CHAPTER III

MENTALLY-ILL OFFENDERS: PREVALENCE AND CRIMINALIZATION

> Epidemiological studies report widely differing estimates of the extent and type of mental illness among prisoners. Traditionally, the prevalence of serious mental illness is held to be low, there being instead a high proportion of prisoners with chronic psychological or social problems, as exemplified by the diagnoses of 'sociopathy', 'alcoholism' and 'drug dependence' (Bluglass, 1966; Guze et al., 1969; Faulk, 1976). More recently American authors have looked at prisoners referred for psychiatric evaluation and have found in this selected group a very high proportion suffering major psychiatric illness as well as social disadvantage (Lamb & Grant, 1982, 1983). (Glaser, 1985, p. 45)

Introduction

The purpose of this chapter is to review studies that provide information regarding the prevalence of mental illness in criminal justice system populations or sites. Also, it examines the evidence for the criminalization of the mentally ill within those populations or located at those sites. The flow-chart (Figure 2.2) is used to group studies.

There are six areas of studies reported: arrest, court, forensic hospitals, jail or prison, jail mental health services, and probation or parole. The results of the studies (except arrest studies) are reported in tables in each section. For the most part, the presentation follows the flow through the criminal justice system. Those studies that sample a mixture of at trial, at sentencing, or sentenced offenders, or that have simply identified jail inmates, are reported within the jail/prison group. The epidemiological results are reported in the tables and not reiterated in the text, except in summary form.

Arrest studies

> [The police] may be viewed as "gatekeepers" for both the criminal justice system and the mental health system, for they decide whether to take a person into custody and choose the type of facility, either criminal or mental health, through which state authority initially will be exercised.(Durham, Carr & Pierce, 1984, p. 550)

The purpose of arrest studies is to determine if, how, and with what result the mentally ill come in contact with the police. These studies attempt to assess how many of the mentally ill come in contact with the police: are they proportionally over-represented in arrest numbers? We also want to know why the mentally ill are becoming involved with the police: what are the reasons for involvement and arrest? Are these causes for involvement any different from those for non-mentally-ill arrestees? Finally, these studies examine what happens to the mentally ill when they are involved with the police: is their disposition any different from non-mentally-ill arrestees.

Bittner (1967) provided the impetus for this particular research. He examined police discretion in the emergency apprehension to the mental health system of the mentally ill. Although Bittner did not provide any data regarding the numbers of mentally-ill persons dealt with by the police, nor did he indicate the proportional representation of different outcomes, and although he dealt with civil commitment proceedings, his study is very important in studying the criminalization of the mentally ill. First, he points out very clearly that the police do deal with the mentally ill, both civilly and criminally, and the police believe that it is an important part of their job. Second, he clearly identifies that the police have a great deal of discretion in determining outcomes of problem situations with the mentally ill. Third, he outlined the options they use, and his construction of their decision-making process became the basis of future research.

Matthews (1970a, 1970b) extended Bittner's findings to include the dispositions utilized in any encounter the police have with the mentally ill. Matthews noted that, within the boundaries of law, there are a vast array of actions. Thus, police choose actions based on simple, informal, and speedy resolution of problems: entry to both systems can be simple and speedy. The police apprehend the mentally ill because of their perception of the mentally ill: (1) they are sick and need hospitalization, and (2) they are dangerous "and the sooner someone takes custody (and hence responsibility) the better" (Matthews, 1970b, p. 289). The latter view is entrenched by the fact that the police only see the mentally ill engaging in abnormal or dangerous behaviours.

Monahan, Caldeira and Friedlander (1979) did a retrospective study on police perceptions of mental illness in persons civilly committed versus arrested. Consistent with what one might expect, of the police who had been instrumental in committing someone, none said the person was not mentally-ill. Of course, it may be that the police are simply being consistent in providing reasons, in retrospect, that match their actions.

What has not been pointed out in critiques of this research (cf. Teplin 1983, 1984, 1985, 1988) is that, of those arrested, the police thought that 18% were somewhat mentally ill, 10% moderately mentally ill, and 2% severely mentally ill. Therefore, thirty percent were considered to have some sort of mental illness but were still arrested. Monohan and his collegues (1979) showed that the committed group were signifcantly more mentally ill than the arrested group. But there was still a considerable proportion of the arrested group who could be mentally ill. These data do not unequivocally support Monahan's conclusion that, because most mentally-ill persons went to the mental health system rather than to the criminal justice system, the mentally ill are not being criminalized.

Bonovitz and Bonovitz (1981) studied archival and present data on the disposition of mental illness related incidents resolved by the police. In the archival data they found an increase of 228% in the proportion of mental-illness related incidents between 1975 to 1979. They also note a dramatic increase (sixfold) in the number of disorderly conduct cases over that period, whereas felonies hardly increased at all. They do not, however, relate this to mental illness related incidents. In the present data, they found a 13% arrest rate of mentally-ill offenders. Teplin has provided a critique on the methods and findings that will not be reiterated here (cf. Teplin, 1983, 1984, 1985, 1988).

What is interesting, and has not been addressed, is that in Bonovitz and Bonovitz's (1981) study there was a differential response to the mentally-ill person depending on the type of incident. In the violence to self or other incidents the resolution was to transport them to a hospital for commitment proceedings. In the publically disordered incidents 13% were arrested, but in 59% of the cases that warranted arrest an arrest was not made because it was seen as a waste of time. The suggestion is that, if the police believe these incidents will be repetive, then the police will arrest the person so they will not have to return.

Overall, it is unclear whether Bonovitz and Bonovitz's (1981) 13% arrest rate of the mentally ill, 92% of which were for public disturbance/disorder incidents, is more or less than what would be expected for non-mentally ill incidents. In conclusion, the dangerous mentally ill, who we would expect to be arrested, are eligible for civil commitment and are disposed of that way. But conversely, (and rather bizarrely so) the "mentally ill persons who are disorderly, destructive of property, or behaving in a bizarre but nondangerous manner are not eligible for involuntary civil commitment" (Bonovitz & Bonovitz, 1981, p. 974) and, as shown, arrest is an option exercised.

Teplin (1984, 1985) described a very large thorough study on the police-citizen encounters in a large urban area. She examined the relationship of severe mental illness to the propensity for being arrested. Of the 2122 persons involved with the police, the mentally ill had a significantly larger proportion of "object of concern" or "object of assistance" roles and a significantly smaller proportion of the victim, witness, or complaintent role (Teplin 1985). They were also "somewhat more likely to be suspects" (Teplin, 1985, p.596). Of the 506 suspects, the mentally ill had a significantly greater proportion of the arrests than did the non-mentally-ill suspects (Teplin, 1984). The type of incident (i.e., type of crime) was not significantly related to the presence of severe mental illness (Teplin 1985). The mentally ill did not commit more severe crimes that would account for their increased arrest rate. When the type of situation was controlled for, the mentally ill were significantly and consistently arrested more than were the non-mentally-ill suspects (Teplin, 1984). In fact, only for the interpersonal conflict situation were there no differences observed between groups. Close analysis of the data indicates that, for violations of public order (e.g., minor disturbances such as "'disorderly persons', public intoxication or vagrancy, 'suspicious persons/situations'" (Teplin, 1984, p. 799)), the only situation where there are more than a few mentally-ill suspects, the mentally ill were more than twice as likely (46.7% to 20.7%) to be arrested than the non-mentally-ill suspects.

In reviewing her work, Teplin (1988) noted that "this does not mean that a substantial proportion of mentally ill persons are arrested" (p. 16). Only in 16.5% of encounters with the mentally ill were they arrested. Note that we would expect this low arrest rate since the majority of the encounters with the mentally ill were for the police to provide some assistance (perhaps as the victim?). However, the mentally-ill suspects were disproportionately arrested, which indicates that there is some bias in the criminal diversion of the mentally ill into the criminal justice system.

Stein and Diamond's (1985) study is reviewed here because it provides an interesting contrast to the above studies. They discuss whether, and how, to involve the police in crimes committed by the mentally ill, especially for repetitive, minor offences. Their position is that the mentally ill should "be dealt with as any other responsible citizen who commits a crime" (p. 271). This response is not to provide treatment through criminal justice system intervention, nor is it to control socially unacceptable behaviour. Instead, it is to provide natural consequences to the mentally ill's actions.

In summary, while the meaning of these studies is not entirely clear, it is certain that, in police encounters, the characteristics of the suspects, especially the characteristic of mental illness, may influence the outcomes of such encounters. Also, as Smith and Visher (1981) pointed out, in addition to suspect characteristics, there are a host of situational and relational factors that play an important role in the decision to arrest. Also, there may be variations in police practices between different police forces dependent upon variations in the characteristics of the police force, the civil committment laws between jurisdictions, resources available, the characteristics of suspect groups (e.g., proportion of different ages, races, youth gangs, etc.), the areas (e.g., inner cities versus suburban versus rural areas) - to name a few - that may influence the arrest or non-arrest of the mentally ill.

With respect to the questions posed at the beginning of this section, the following is clear. The mentally ill do come into contact with the police, both as suspects and as victims of crime. The proportion of mentally ill coming into contact with the police is dependent upon the epidemiological characteristics of the catchment area. However, it is safe to say that the mentally ill are proportionally over-represented in police contacts. Additionally, the most recent research (Teplin's study) has suggested that the mentally ill are proportionally over-represented in the arrest of suspects. Thus,

the police's resolution of possible criminal acts results in a bias in the disposition for the mentally-ill persons: they are arrested more often.

All in all, as many have suggested, the police want an expedient and successful resolution to the problems they encounter, a solution that excludes repetitive contact. As social control and public protection agents, they see that their duty is to resolve disturbances and dangerous situations. Their choices seem to be restricted to hospitalization or arrest. When the former is not available, not expedient, nor a reliable lasting solution then the latter is chosen.

Court cohort studies

Court studies sample persons appearing in court (Table 3.01). Figure 2.2 outlines the trial process and, thus, the points or sites where a sample of court subjects could be taken. Court cohorts are groups of persons identified by court proceedings, including arraingment, trial or sentencing. For example, after arrest and booking in a local police jail, information regarding the charge(s) is brought to crown counsel who determines whether or not the person will be prosecuted. If this proceeds, the person appears in court before a judge to be arraigned. Beck and his collegues (1984) study is an example of this court sample. In contrast, Bromberg and Thompson (1937) drew their sample from offenders at court at the time of sentencing.

Bromberg and Thompson (1937) studied 9958 convicted or pled guilty felons between 1932 to 1935 who were assessed by a psychiatrist and a psychologist for court purposes. The prevalence of psychosis amoung prisoners is perhaps not that different than the general population. In comparison to other early studies, there were fewer psychopaths identified, perhaps reflecting a real difference or a more rigorous definition of psychopathy.

TABLE 3.01

Summary of Research on the Prevalence of Mental Illness in Court Cohort Populations

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Brombeck & USA (1937)	9958 persons pled guilty to felonies	consecutive convictions at court	assessment	psychiatrist psychologist	psychiatric WAIS	-	1.5% psychosis 6.9% psychopathic 6.9% psychoneurotic
Beck et al. USA (1984)	819 males 95 females	consecutive arraignments in a District Court	probation officer takes a history to determine public defense eligibility	researcher	coding information interview by probation officer	history of psych-iatric disorders	12% psychiatric history 12% alcoholic 6% drug abuse

Beck, Borenstein, and Dreyfus, (1984) studied consecutive arraignments in a District Court. They were interested in whether those identified with a mental disorder were treated any differently, in terms of disposition given, than those not identified with a mental disorder. The importance of this study's findings for this review is that they found that "persons identified as having a history of mental disorder are more likely [2.23 times more] to be found guilty than are other defendents" (Beck et al., 1984, p. 336). They found that those noted with a history of mental disorder, drug abuse, or alcohol abuse were more likely to be found guilty. They also found, that of those found guilty, offenders with mental disorders were 3.27 times more likely to be supervised by court or incarcerated than other offenders. What is evident from this is that judges are acting differently with mentally disordered offenders. It may be that they are acting paternalistically: they may believe they are acting in the best interests of these offenders. It is clear, however, that in this case the mentally disordered offenders are being criminalized: found guilty more often and given more onerous sentences.

Beck et al. (1984) offered possible reasons for this, including the operation of a paternalistic attitude that incarceration of the mentally ill protects either them or the public. Second, the term "mental disorder" has a halo effect or becomes a category that is an organizing principle for judgements. That is if a person is a "B" then we do "x, y, and z" for them. Finally, these persons may commit more impulsive crimes as a result of their disorder and, consequently, there is more substantial evidence against them, or they may more often admit guilt than do non-mentally disordered offenders.

Beck et al. (1984) data point to the fact that the persons before the court with a mental disorder are criminalized: (1)they are more likely to be found guilty, and (2) they are more likely to be given more onerous sentences. But there are methodological difficulties with the identification of mental disorder in this study, which questions the

results that were found. However, this study indicates a criminal justice system bias in processing mentally-ill persons that warrants further research.

In contrast to the extensive studies of mental illness and arrest, there is a distinct lack of study on mental illness and judicial decision-making. This is a problem as the decisions of jailing, prosecution, and remand are important junctures where criminalization can occur. At the beginning of the justice process there are three important groups of individuals to be considered: those brought in by the police and kept in police cells, those brought to Crown Counsel for consideration of charges to be laid and the decision to prosecute, and those brought before court for arraignment. It is of interest to know the relation of mental illness status to Crown Counsel decisions to proceed or not proceed with charges. There needs to be more studies at the site of arraignment, especially since this seems to be the site where the decision occurs either to await trial in jail (i.e., that is be remanded), to be released (e.g., bail, own recognizance), or to have charges dropped or proceedings stayed. It is very important to know if the mentally ill are treated differently at this stage: are they criminalized more than non-mentally-ill persons such that they are sent to a remand jail more often?

Research also needs to be done at the other two court appearances: for trial and sentencing. Court cohort populations need further research as these sites are decision-making forums that will have a great deal to do with whether the mentally ill are criminalized. What is clear from Beck et al.'s (1984) research is that the mentally ill can be criminalized. That is, if someone is mentally-ill then they will receive, on average, more criminal justice system intervention and more onerous consequences.

Forensic hospitals and clinics

There are a number of legal issues that can lead to a mental health assessment. These issues (i.e., fitness to stand trial and insanity determinations, and pre-sentence assessments) can be raised by defence or crown counsels during different points of the judicial proceedings. In Canada these expert evaluations are done by professionals, either privately or through attendence at a forensic clinic. However, evaluation is performed at the directive of the court. This group of studies examined both the prevalence rate of mental illness in this court-referred population of persons charged with offences and in those deemed to be offenders, and the differentiating characteristics of these persons. The sites for these persons has been forensic clinics and hospitals (Table 3.02).

These studies represent a cross-section of anglo-based legal jurisdictions. In different countries, forensic hospital and clinics come under different jurisdictions, although most are encompased within the corrections or mental health jurisdictions. In Australia and New Zealand, forensic hospitals are part of the prison system and they receive both remanded and sentenced mentally-ill offenders. In Canada, forensic hospitals for remands for fitness and insanity issues and treatment of those deemed unfit or insane come under health or mental health systems. In the United States, there are a variety of sites. In Britian, there are either special clinics attached to courts or they are part of the health system. The focus of this section is on studies that have examined the prevalence rate of mental illness in court-referred populations.

The earliest study found is Oltman and Friedman (1941) who studied court-referred males for psychiatric observation. The methodology and diagnostic criteria are

TABLE 3.02

Summary of Research on the Prevalence of Mental Illness in Forensic Clinic and Forensic Hospital Populations

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Oltman & Friedman USA (1941)	100 males	court referred for psychiatric observation in hospital	psychiatric assessment	MD	-	-	9% dementia praecox 3% manic-depression 2% alcohol psychosis 8% CNS syphillis psychosis 14% psychopaths 3% psychoneurosis 2% arterialsclerosis psychosis 2% psychosis in psychopathic personality
Binns et al. England (1969a)	80 male hospital admissions 68% charged with mischief offences	court remand of at trial and as sentenced persons (Section 54)	psychiatric report to court	Psychiatrist	-	ICD?	32.5% schizophrenia 5% hypomania 7.5% depression 2.5% organic brain syndrome 5% epilepsy 1.3% anxiety state 1.3% sexual deviance 15% alcoholism 20% mental deficiency 9% personality disorder 1.3% none
Binns et al. England (1969a)	27 female hospital admissions 68% charged with mischief offences	court remand of at trial and as sentenced persons (Section 54)	psychiatric report to court	Psychiatrist	-	ICD?	40.7% schizophrenia 7.4% hypomania 3.7% depression 3.7% anxiety state 7.4% alcoholism 22.2% personality disorder 14.8% none

Table 3.02 continues

TABLE 3.02 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Binns et al. England (1969b)	83 hospital admissions for 80 persons; 67 males 16 females; 23% charged with mischief offences	court remand of at trial & as sentenced persons (non Section 54)	psychiatric report to the court	Psychiatrist	-	ICD?	males: 4.5% schizophrenia 1.5% neurosis 21% alcoholism 1.5% drug abuse 1.5% epilepsy 45% personality disorder 20% mental deficiency 3% other, 3% none females: 6% depression 31% personality disorder 31% alcoholism 31% mental deficiency
Yarvis USA (1972)	25 males with felony convictions 0.9% of new admissions	court referred 20 for presentence report, prison referred 5 for evaluation	psychiatric evaluation	Psychiatrist	-	-	36% psychotic, anxiety, depression 20% social deviance, no pathology 40% social deviance, & pathology
Ciccone & Barry USA (1976)	80 males, 47 white; 16 females, 10 white; at forensic court clinic	consecutive referrals to court clinic, from 64% court, 10% family, 6% probation, 5% self, 5% jail, 5% police, 4% community agency	57% pretrial evaluation, 10% drug addiction, 12% competency to stand trial, 7% dangerous, 4% presentence report, 3% custody, 1% insanity	MD's	file review	DSM-II?	males: 17.5% psychosis 6.3% organic brain syndrome 1.3% affective disorder 1.3% neurosis 41.3% character disorder 10% situational distress 11.3% none, 11% other females: 6.3% psychosis 12.5% neurosis 6.3% affective disorder 37.5% situational distress 37.5% character disorder

Table 3.02 continues

TABLE 3.02 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Piotrowski et al. USA (1976)	46 males 4 females at trial	consecutive referrals from court	pretrial psychiatric evaluation (competency, presence of illness, criminal responsibility)	Psychiatrist	standardized psychiatric interview and history	Feigher criteria, multiple diagnoses	22% schizophrenic 6% secondary depression 10% bipolar affective disorder 4% organic brain syndrome 2% hysteria 2% epilepsy 6% undiagnosed 48% alcoholic 26% drug abuse 12% mental retardation 50% antisocial personality 8% pedophilia
Bowden England (1978)	126 males 17% violent 32% theft 21% public disorder 17% property damage	random 1/5 of court remand into custody for assessment	medical report on need for treatment	MD's	-	ICD (1968)	21% schizophrenic 2% neurosis 2% manic 3% organic brain syndrome 17% none 21% alcoholic 5% drug abuse 2% mental retardation 2% sexual deviance
Benezech et al. France (1980)	547 patients at hospital for the criminally insane	all patients in 10 year period, court referred and violent mental patients	-	MD	file review	French nosology similar to DSM-III	14.8% schizophrenic 7.7% paranoid 5.5% other psychoses 4.8% epilepsy 1.3% neuroses 16.4% mental retardation 6.7% alcoholic 0.5% dementia 0.5% personality disorder 1.3% pyromania

Table 3.02 continues

TABLE 3.02 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Baird Scotland (1981)	57 males at trial excluding murder charges	court referrals to hospital service 51 custody, 2 inpatients, 2 bail	psychiatric assessment	Psychiatrist	interview	ICD-9	3.4% schizophrenic 8.7% mentally handicapped 5.5% depressed 3.4% organic 26.3% alcoholic 12.2% personality disorder 40.4% no psychiatric disorder
Beran & Hotz USA (1984)	420 patients in civil hospital under CJS aegis; arrest, at trial, probation, parole	stratified random sample of forensic patients	research	Psychologist	file review	DSM-III	45% schizophrenic 5% organic psychosis 7% neuroses 7% antisocial personality 14% other personality disorders 10% alcoholic 6% drug abuse
Reich & Wells USA (1985a)	390 defendants 83.5% male	court referrals (judge or either lawyer)	evaluation of competency to stand trial	multidisciplinary team, Psychiatrist Psychologist Social Worker	clinical interview	DSM-III	28.8% schizophrenic 1.8% paranoid disorder 11.5% other psychoses 6.4% affective disorder 0.5% anxiety disorder 8.7% alcoholic 6.9% drug abuse 4.6% organic brain syndrome 1.0% antisocial personality 0.5% sexual disorder 1.3% other personality disorder 3.1% adjustment disorder

Table 3.02 continues

TABLE 3.02 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Rosner et al. USA (1985a)	95 female felons at trial, 26% competency, 40% present-report, 32% preplead	all court referrals to forensic clinic in 3 year period	evaluation of competency to stand trial and psychiatric assessment	2 Psychia-trists	clinical interview	DSM-II	37.9% schizophrenic 13.7% unknown 3.2% organic mental syndrome 35.8% personality disorder 8.4% none 1.1% epilepsy
Rosner et al. USA (1985b)	25 geriatric felons at trial, 26% competency, 40% presentence report, 32% preplead	all court referrals to forensic clinic in 7 year period	evaluation of competency to stand trial and psychiatric assessment	2 Psychia-trists	clinical interview	DSM-II	24% schizophrenic 28% organic mental syndrome 8% affective disorder 4% anxiety disorder 4% atypical paranoid disorder 16% unknown 28% personality disorder 12% alcoholism 8% none

not stated, but what is interesting is the low number of schizophrenia-like psychosis (9% dementia praecox) and the relatively large number of organic psychoses (12%). The proportion of psychoses for this pre-selected population was lower than that found in similar studies. Most were diagnosed as psychopathic. Even though diagnoses and terms have changed, the usefulness of criminal personality disorders (e.g., psychopathic, sociopathic, anti-social personality disorder) has not changed. Oltman and Friedman (1941) noted "the term, psychopathic personality, has not been satisfactory inasmuch as it has outgrown its usefulness for all but a limited number of criminals" (p. 40).

Binns, Carlisle, Nimmo, et al. (1969a, 1969b) studied those remanded by court for a psychiatric assessment under Section 54 of the English Mental Health Act. The results are reported separately by sex of offender in Table 3.02. The majority of the patients committed mischief offences (68%). There were some differences in the distribution of the types of offenses for each diagnostic group, which suggests that those with more serious mental illnesses commit proportionally more of the less serious types of crimes (e.g., breach of peace) than other types of offenders (e.g., alcoholic group). [1]

Analysis of both studies reveals some interesting differences. Binns et al. (1969a) found a relatively large rate of schizophrenia (33%) in males, but a low rate of personality disorder (9%). However, the criteria for referral focused on major mental illness as contained in Section 54 of the English Mental Health. In contrast, Binns et al. (1969b), which sampled non Section 54 referrals, found the reverse: 5% schizophrenia and 45% personality disorder. This serves to highlight the fact that, even within the same site (e.g., forensic clinic) and, obstensibly, within the same referral process (e.g.,

1 For the majority of studies in this chapter, the cell sizes of diagnostic groups were small. This precluded statistical analyses of the differences between groups. results that use statistics to prove differences between groups are noted as "significant differences", other results are noted as simply suggested differences

court referred), differences in the reasons for referral (in this case the legal mechanism for referral) may result in very different prevalence rates.

Yarvis (1972) conducted a methodologically poor study on court and prison-referred offenders, but the study is noteworthy for its categorization of offenders into one or three diagnostic groups: psychiatric, social deviance, and psychiatric-social deviance. Those with severe psychopathological symptoms that indicate chronic or severe mental illness also had dysfunctional personalities (e.g., antisocial personality disorder) as well as alcohol and drug problems. In this study there were no very "pure" types. The psychiatric group indicated alcohol and drug problems as well as conduct problems. The social deviance group indicated previous psychiatric problems as well as alcohol and drug problems. It may be that those with chronic and severe mental illness also have other problems that are usually identified as personality disorders or habit disorders (alcohol and drug abuse). Also, in the identification of mental illness, if the method only focuses on the presenting problem (e.g., alcohol or drug intoxication) or on one's criminal and social history (e.g., as in diagnosing antisocial personality disorder), then identification of other types of disorders (e.g., everything from panic disorders to schizophrenia to affective disorders) can be missed.

Ciccone and Barry (1976) studied 96 consecutive referrals to a forensic clinic. Most were young (54% between 15 to 24) and Caucasian (60%). In comparison to other studies, the rate of psychosis was relatively low. What is evident is that referrals came from a variety of sources and for a variety of reasons. The cell sizes were too small to compare the proportional differences of the source versus reason for referral on the prevalence rates of mental illness, but it is likely that these variables directly influenced the prevalence rates. For example, only 2/3 of the referrals were from the courts and the majority of these referrals were for a pretrial assessment which excludes

competency or insanity issues. One wonders what the purpose of the pre-trial referral was? Also, eye-ball analyses of the effects of sex and race differences suggest that race and sex influence the proportional distribution of the people coming from different referral sources. In summary, the prevalence rates of mental illnesses are affected by the referral source and reason for referral (i.e., the referral question), which were, in turn, influenced by the sex and race of the person referred.

Piotrowski, Lasacco, and Guze (1976) studied referrals from court for pretrial and insanity evaluations, all of whom were charged with serious felony offences. Multiple diagnoses were given for each person assessed (Table 3.02). It is clear, from a closer analysis of these statistics, that those suffering major mental illnesses (e.g., schizophrenia and affective disorders) also exhibited personality and alcohol and drug disorders. Of those with major mental illnesses (i.e., schizophrenia or affective disorders) 54% also had an alcohol or drug problem, 26% were also diagnosed with an antisocial personality disorder (APD), and 70% had an alcohol/drug problem or APD.

Piotrowski et al. (1976)found no obvious correspondence between index offence and type of disorder. A closer analysis suggests that those with major mental illnesses committed more property and fraud offences than the other groups, whereas those with APD committed more person offences than the ogther groups. These differences were constrained by the fact that misdemeants were excluded from the sample, in which case psychotic misdemeanents would not be found as they are seen in other studies. Thus the catchment of this study precluded finding the relation of mentally-ill offenders to the commitment of less serious crimes.

Bowden (1978) did a study of men remanded into custody for medical reports. The most common reason for remand was that the person had a history of a mental disorder. Those with previous criminal convictions (73%), most of the convictions

(note: multiple convictions) were for non-person-related offences: theft (73%), vagrancy (57%), burglary (49%), fraud (43%), personal violence (41%), shoplifting (37%), property violence (35%), motoring offences (33%), drinking (20%), drugs (18%), and sexual offences (16%). The most frequent offence was for drunkenness followed by vagrancy offences. Also, on their entry charge 32% were arrested for theft (shoplifting 15%, burglary 6%, other 11%), 21% for public order offences (6% drunkenness, 4% begging, 4% vagrancy, 4% disorderly behaviour, 3% indecent exposure), 17% for violence, 17% for criminal damage against property, 5% for fraud, and 8% for other offences.

It is evident that, for the most part, the mentally ill have been convicted for public nuisance and property offences. For example, a total of 12% of them were brought before Court for "begging", vagrancy or disorderly behaviour charges. Bowden (1978) found that less serious offences brought the mentally ill to the judicial system. He concurred with Faulk and Trafford's (1975) view that the remand prison has a practical use as a "secure bail hostel, alcohol detoxification unit, and acute psychiatric admission ward" (Bowden, 1978, p. 320).

Beran and Hotz (1984) examined the medical records of patients who were under the care of the criminal justice system (including those under arrest, charged, on parole and on probation) and were referred to a forensic clinic. This group was compared to a similiar sized civil population in the same hospitals. Beran and Hotz (1984) found the largest proportion of psychoses (50%) of any forensic clinic or hospital study. In comparison to the civil group, the forensic group was significantly younger and more were male. There was a significant difference in the overall distribution of diagnoses between the groups, but the proportional differences for a particular diagnosis was small. The forensic group had fewer diagnoses of schizophrenia and

organic psychoses and more personality and drug disorders, but there were essentially no differences with respect to affective, drug, and neurotic disorders.

An interesting finding was that civil patients performed significantly more overt violence against others and property damage than did the forensic patients. On the other hand, forensic patients were rated as having significantly higher anger and anti-authoritarian attitudes. Thus, in the argot of today, forensic patients had an "attitude problem", but the civil patients had the "behaviour problem". Staff rated forensic patients as needing less intervention but having more potential for violence. On an objective index of problems the civil patients created more problems but the forensic patients were perceived as being more of a problem. As Beran and Hotz (1984) concluded:

> fears of the criminally insane seem to have been exaggerated. And so apparently have been contentions that the mental disorders of forensic patients are significantly different from those of civil patients and thus require significantly different treatment modalities. (p. 588)

The major difficulty with Beran and Hotz's (1984) study is that there were a variety of inmates included in the forensic group. Inmates were under different legal mandates and, therefore, the group was very heterogeneous. It is clear that inmates from different parts of the criminal justice system may have different types of problems, and that the prevalence rates of major mental illness vary from site to site.

Reich and Wells (1985, 1986) studied defendents referred from court by the judge or either lawyer to determine fitness to stand trial. They did two interesting comparisons: they compared these patients to civil patients, and compared those who had repeated fitness evaluations to those who did not. There were significant differences in the distribution across all diagnoses (Chi-square) both between the forensic and the inpatient and the outpatient groups. The forensic group had

proportionally more schizophrenics, organic brain syndromes, mental retardation, and personality disorders. The forensic group also had less affective and drug disorders. They also found that those with repeated competency exams had a lower level of education and more severe pathology than their civil counterparts. Reich and Wells (1986) concluded that those who were repeating (and thus who were being arrested more often) were those with more specific and severe psychopathology. Reich and Wells (1986) believed this was because they "will tend to function more poorly in the society, will be more likely to come in contact with the criminal justice system, and will be less likely to be found competent" (p. 121).

Rosner, Weiderlight, and Wieczorek (1985) did a descriptive study of 95 females indicted for felonies and referred from court for a variety of forensic evaluations (fitness, insanity, and sentencing). Seventy two percent were charged with violence against persons (27% murder, 21% manslaughter) while only 3% were charged with fraud and 1% for mischief. The increased amount of violence, and hence dangerousness, in this group is due to excluding misdemeanor offenders and the fact that the court referred for, presumably, serious crimes or obvious indications of incapacity. Most of the sample abused substances: approximately 74% reported using alcohol and 44% used drugs (the severity of use is not noted). Fifty-six percent had been previously arrested and 48% had previous outpatient mental health care. What is clear is that in offenders of serious crimes, that is, the ones where fitness and insanity issues are raised, many had multiple diagnoses and there was a substantial subgroup who had multiple agency contact.

Rosner, Weiderlight and Scheider (1985) examined geriatric defendents (i.e., over the age of 62) sent for psychiatric assessment from court. This group was primarily charged with violent crimes (88%). An alcohol problem was reported by 32% while

12% reported some use of drugs. Sixty percent reported a previous psychiatric history, and 60% had a family member with a history of a mental disorder. Most had a previous arrest (44%). Although, this study does not examine the criminality issue directly, the data do sugges that some persons have repetitive mental health system and criminal justice system contact continuing into old age.

Summary

These studies indicated that a large proportion, from 17% to 45%, of those sent from court for psychiatric assessment do display a schizophrenic disorder. Other psychotic disorders were indicated in between 1% to 16% of individuals. Many showed evidence of personality disorders with the primary one being identified as psychopathic or antisocial personality disorder (7% - 50%). Many had alcohol (10% - 48%) or drug problems (6% - 26%) independent of, or concomitant with, a major mental disorder. Studies with multiple diagnoses indicated that many with major mental illnesses also had other disorders: there were not many "pure" disorder types. Also, studies that focused on the presenting disorder (e.g., alcoholic) often missed other significant psychological or psychiatric disorders. Perhaps these were diagnostic decisions -- not to report diagnoses that were thought to be secondary to the presenting disorder: for example, not reporting an affective disorder if it was thought to be secondary to the presenting problem of alcoholism.

These mentally-ill offenders have a previous history of criminal activity and psychiatric hospitalization. They are a good example of those who utilize both the criminal justice and mental health systems. Many have been found to have an extensive criminal history: some studies suggested that severity of mental illness was positively related to the length of criminal history.

However, comparison of results is difficult. There is a wide variety of results, for example, Reich and Wells (1985, 1986) findings on the differential distribution of diagnoses was exactly opposite to that found by Beran and Hotz (1984). There also were methodological problems. For example, there was a problem of differing inclusionary and exclusionary criteria, even within the one site, that influenced results. Rosner and collegues' (1985) study excluded misdemeanents, therefore this study could not comment on whether mentally-ill offenders were entering into the criminal justice system for less serious charges; whereas Beran and Hotz included a variety of criminal justice system inmates. As well, the differences in the referral process or referral purpose influenced the results (cf. Binns 1969a, 1969b). It seems, as one would expect, that as the proportion of insanity referrals increases so does the proportion of those with major mental illnesses.

Determining the type of crimes the mentally-ill offenders commit is difficult. Studies that surveyed all referred mentally-ill offenders, without exclusionary criteria, found a large number who were there for less serious offences: for example, for criminal offences of nuisance and property offences (Bowden, 1978).

What is evident is that the courts are good at identifying some of the mentally-ill persons entering the criminal justice system. If this is so, then the mentally ill are being filtered out of the criminal justice system and into the mental health system and criminalization is not taking place at this point. The mentally ill are being treated in the mental health system.

However, being identified as psychotic does not mean that one is filtered out of the criminal justice system. Roesch's et al., (1981) forensic hospital study found that, among defendents remanded to be assessed for fitness to stand trial, one-third of the schizophrenics and one-third of those diagnosed with other psychoses were found fit to

stand trial. This suggested that mentally-ill persons do re-enter the criminal justice system even when they have been identified as mentally-ill by both the court (in referral) and a mental health assessment. This is not to say that finding mentally-ill persons fit to stand trial is not appropriate, but that mentally-ill persons are not filtered out of the criminal justice system by this assessment.

In summary, forensic clinics and hospitals do assess and treat a large number of mentally-ill offenders. There was a high proportion of the chronically mentally ill in most sites. There was a sub-group of violent first-time offenders. What this indicates is that the courts are specifically attuned to signs of mental illness in cases of violence. This does not mean that all mentally-ill offenders are violent, but that for some violent offenders the issue of mental illness is examined and often found.

Does this group of studies indicate that the mentally ill are being criminalized? It is difficult to tell. We cannot compare prevalence rates because these were preselected populations specifically chosen because of signs of mental illness. From this group of studies, we do find that there is a large proportion of mentally-ill offenders who have entered the criminal justice system for less serious charges. There was some consistency in finding large numbers who were jailed for public nuisance/disorder offences (e.g., mischief) and other misdemeanors. However, the proportion of those with less serious offences was not compared to proportions found in the "general population" offender. So the significance of these findings is unsubstantiated. In other criminalization issues, data examining a bias in decision-making or evidence of more severe criminal consequences both inside and outside the jail were distinctly lacking.

> many studies on mentally ill prisoners were made in Germany from 1850 on...during this period it was first scientifically recognized that the prevalence of mental illness and suicide among inmates was far greater than in the general population, a finding which still holds true. (Cormier et al., 1969, p. 946).
>
> the groups were not always unselected, the diagnostic criteria were seldom defined, evidence of a systematic and uniform examination inquiring into the presence of the common and characteristic symptoms of the frequently encountered psychiatric illnesses (excluding alcoholism) was never presented, and more of the studies were concerned with prognosis and follow-up. (Guze et al., 1969, p. 512)

The majority of studies of mental illness in prison or jail inmates (Table 3.03) seem to have accepted that there will be a number of mentally ill inmates. They do differ in the prevalence rates that they report, and in whether they perceive these rates as being high or low, or being any different from the general population. The primary purpose of these studies was to estimate psychiatric morbidity rates in order to provide treatment services. One major question posed in previous research is how much and what type of mental health services are needed?

The purpose of this review was to examine any evidence for criminalization. This review did not examine, per se, the need for treatment. Rather, in reviewing the research the following was investigated: (1) the prevalence of mental illness, (2) the differences between those with major mental illnesses and those who were not mentally ill on variables such as the types of charges, previous criminal history, etc., (3) the differences between these two groups in judicial decisions (e.g., the length of jail sentences), and (4) the differences between these groups in jail performance. This review also had a practical purpose. Halleck (1980) discussed the practical consequences of determining the extent of the mentally ill in a prison population: these people may cause more work for correctional workers and, therefore, there may be a need for more staff.

TABLE 3.03

Summary of Research on the Prevalence of Mental Illness in Jail and Prison Populations

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Glueck USA (1918)	608 prisoners	admissions to Sing Sing prison	medical assessment	MD?	clinical interview	-	6% dementia praecox 4% paranoid 3% manic-depressive 2% CNS syphillis psychosis 18.9% psychopaths 28% mental retardation
McCartney USA (1934)	2000 reformatory male prisoners	2 years consecutive admissions	classification at the psyhopathology clinic at the prison	multidisciplinary team, Psychiatrist Psychologist	series of clinical interviews, Stanford Binet, psychological tests, psychiatric examination	American Prison Association Psychiatric classification	0.3% psychotic 9.8% feeble minded 6% potential psychotic 0.3% epileptic 1.4% alcoholism 0.1% drugs 4% undiagnosed 36.6% psychopathic personality 2.7% neurotic 0.5% traumatic personality 0.8% neuropathic 1.4% post-encephalitis 36.2% normal
Thomson USA (1937)	1380 recidivist prisoners	-	-	-	-	-	0.6% psychosis 2.6% mental retardation 5.6% psychopaths
Roper England (1950)	814 male prisoners not likely to recidivate, no previous convictions	1 year of consecutive admission to prison	medical & psychiatric assessment	multidisciplinary team	clinical interview, Raven's Progressive Matrices	-	32% dullard 8% psychopathic 5% neurotic (16% psychiatric history)

Table 3.03 continues

TABLE 3.03 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Roper England (1951)	1100 males prisoners (as above) expanded sample of above	2 years of consecutive admissions to prison	medical & psychiatric assessment	multidisci-plinary team	clinical interview, Raven's Progressive Matrices	-	24% dullard 12% neurotic 57% normal 8% psychopathic (18% psychiatric history) Personality types: 6% schizoid 8% hysteroid 6% aggressive 51% inadequate 29% various personality disorders
Messinger & Apfleburg (1961)	prison	-	-	-	-	-	1% psychotic 1% psychoneurosis 2% mental retardation 24.9% psychopathic
Bluglass Scotland (1966)	300 prisoners	1 of 4 admissions to prison	-	MD	interview Raven's Progressive Matrices	ICD	2% psychosis 2% neurosis 11% alcoholism 14% mental retardation 13% psychopaths
Ross & Ervin USA (1971)	1154 male penitent-iary prisoners 71% property offences	total prison population	-	MD	file review	-	6% schizophrenic 2% other psychoses 6% neuroses 2% epileptic 6% none 31% personality disorder 4% prison psychosis 29% alcoholism 25% drug 1% incompetent 3% mental retardation 5% possible mental retardation

Table 3.03 continues

TABLE 3.03 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Boulton USA (1976)	1084 prisoners	sampled from 5 county jails	-	-	-	-	6.7% psychotics 9.3% nonpsychotic mental disorder excluding personality disorder
Jones USA (1976)	1040 males state prison	total prison population	-	Psychiatrist Psychologist	clinical interview	DSM-II	3% psychoses 2% organic psychoses 2% neuroses 3% transitory situational distress 18% alcoholism 6% drug 1% mental deficiency 13% antisocial personality 16% other personality disorder 1% convulsive 36% none
Swank & Winer USA (1976)	100 males 71 felony at trial 27 misdemeanor at trial or sentence	consecutive daily admissions to a county jail	psychiatric diagnostic screening	MD's	interview	DSM-II	50% given DSM-II diagnosis among females 63% given DSM-II diagnosis among males
Kai USA (1977)	(no sample size given) males & females	random sample of jail population	survey	trained lay interview & Psychiatrist rated the data	structured history & brief psychiatric screening interview	psychiatric criteria 5 most frequent categories	3% affective disorder 2% organic brain syndrome 15% alcoholism 12% drug 16% antisocial personality disorder

Table 3.03 continues

TABLE 3.03 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Schuckit et al. USA (1977)	199 white male felony arrested, excluded previous felony conviction	jail admissions, voluntary, before pretrial, all released on bail or own recognizance	research	non mental health professional	file review	-	2.5% schizophrenia 0.2% paranoia 1.4% organic brain syndrome 0.1% affective disorder 0.1% other psychosis 0.8% neurosis 2.3% mental retardation 1.3% alcoholism 1.0% drug 1.1% sexual deviance 5.5% personality disorder 0.3% other
James et al. USA (1980)	174 sentenced prisoners 168 males, 44% incarcerated 2 years+	stratified random sample	research	7 Psychiatrists 7 Psychologists	clinical interview, Brief Psychiatric Rating Scale	DSM-III? (other categories not reported)	5% schizophrenic 25% alcoholism 35% personality disorder
Krefft & Brittain USA (1983a)	194 male inmates at state prison	194 participated of 283 random sample of prison population	research	14 Psychologists 26 Psychiatrists	mental status examination, clinical interview, psychological tests (e.g., MMPI)	8 categories diagnostic impressions	10% psychotic 4% other 45.4% personality disorder 15.5% none 11.3% substance abuse 13.9% criminal (antisocial & psychopathic)
Krefft & Brittain USA (1983b)	122 female inmates at state prison	122 participated of 149 total prison population	research	14 Psychologists 26 Psychiatrists	mental status examination, clinical interview, psychological tests	8 categories diagnostic impressions	5.7% psychotic 5.7% other 53.3% personality disorder 19/7% none 11.5% substance abuse 4.1% criminal (antisocial & psychopathic)

Table 3.03 continues

TABLE 3.03 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Guy et al. USA (1985)	96 males at trial, "booked" in jail	semi-random, 1/10 of consecutive admissions, (attrition from a 1/3 random sample)	research	Psychiatrist Psychologist	psychiatric diagnostic interview within 48 hours?	DSM-III	11.5% schizophrenic 1% paranoid 1% organic brain syndrome 3% bipolar affective 1% depression 5% dysthymic 2% anxiety state 25% alcoholism 11.5% drug 25% no diagnosis 9% personality disorder 5.2% mental retardation
Daniel et al. USA (1988)	100 female sentenced offenders	consecutive admissions to prison	research	1 Psychologist	Diagnostic Interview Schedule	DSM-III	7% schizophrenia 19% major depresssion 2% mania 30% anxiety disorders 36% alcohol disordres 26% drug disorders 1% somatoform disorder 29% antisocial P.D.
Teplin USA (1990)	728 male 1/2 felons, 1/2 misdem. detainees	admissions, stratified random sample	research	Psychologists	Diagnostic Interview Schedule	DSM-III	3.7% schizophrenia 5.8% major depression 2.5% mania
Bland, Newman, et al. Canada (1990)	180 male sentenced inmates provincial jail	systematic, random? sampling	research	Trained interviewers	Diagnostic Interview Schedule	DSM-III	2.2% schizophrenia 9.4% obsessive-compulsive 22.8% affective disorder (4.4%) manic (16.7%) major depression (10.6%) dysthymia 15.6% anxiety/somatoform 78.9% alcohol disorder 50.6% drug disorder 56.7% antisocial P.D. 1.1% cognitive impairment

In reviewing prison surveys it is difficult to compare studies because the methodologies varied. Also, the types of prisoners studied varied. For example, there were differences in length of sentences. There were some attempts at representative cross-sectional sampling in the studies. In review of this research, Coid (1984) believed that the prevalence of mental illness in jail and prison populations is more than that found in court or general populations. Coid believed that some of the differences in prevalence rates among studies (e.g., U.S. studies show the highest prevalence rates) resulted from differences in diagnostic procedures and diagnostic categories between the U.S. and Britian.

Coid's (1984) review of only 11 studies stated that they "failed to find a higher prevalence of psychotic illness" (p. 84). However, he did state that "prisons have to cope with a considerable number of mentally abnormal inmates" (p. 78). These mentally abnormal inmates were said to show more psychopathology than the general population. But this was thought to be due to increased levels of alcoholism, drug dependency, and personality disorder. However, most of the studies Coid reviewed did not use sufficient diagnostic tools to determine th: ; with a great deal of accuracy.

Glueck (1918) provided the prototypical study, and one of the most ambitious studies, on the prevalence of mental illness in a jail or prison. He studied 608 consecutive referral prisoners admitted to Sing Sing, by conducting a clinical interview and diagnosing them according to his classification system. Interestingly, he found 13% with psychotic-like illnesses and 19% psychopathic. The full results are reported in Table 3.03.

McCartney (1934) reported another ambitious (2000 male offenders) and diagnostically thorough (e.g., a series of interviews and tests) study on the prevalence of mental illness in a jail. However, he only found 0.3% psychotic (6% potentially

psychotic), extremely few alcoholic (1.4%), and a large number psychopathic (37%) offenders. Interestingly, he did find 36% to be normal.

Thompson (1937) studied 1380 recidivist prisoners and found 0.6% psychotic and 6% psychopathic. What is interesting about these early studies is the differential distribution of diagnostic groups across studies. Glueck (1918) found a 40 fold increase in psychosis when compared to McCartney's figures. McCartney (1934) found 8 times more psychopathy than Thomson did. It is likely that differences in methodologies, samples, or diagnostic criteria account for the differences between results. But this variation in prevalence rates is still found when comparing more recent studies.

Roper (1950) (1951) studied males who were "star" prisoners and convicts (i.e., 3+ sentenced years). He was looking at their family and psychiatric history, intelligence, and "stability". What is interesting is the classification and identification of personality types (which have some correspondence to present day personality disorders). In addition to the designation of 18% of the sample as having psychiatric treatment (suggesting a psychotic disorder of some type), 12% neurotic, 8% psychopathic, and 45% with subnormal intelligence, he found 51% of them were inadequate personality types, 6% schizoid, 8% hysteroid, and 6% aggressive (note the multiple designations). As far as Roper was concerned, nearly all offenders had a psychiatric or personality problem.

Messinger and Apfleburg (1961) studied an unknown number of prisoners between 1953 and 1957 and found that a very small proportion of inmates had a mental illness: approximately 1% each of psychosis and neurosis. They found a larger proportion of psychopaths (25%). Also, they speculated that the nature of the prison population had changed, due maily to the large increase in the number of drug addicts.

Robinson, Patten and Kerr (1965) did a psychiatric assessment of 566 persons in the Belfast Prison, Northern Ireland. What is remarkable is the rate of alcoholism (56%), sub-normal intelligence (24%), and "dullards" (38%). Also, 31% had a "postive" psychiatric diagnosis (e.g., neurosis, psychosis, epilepsy, drug addiction, alcohol addiction, psychopathic and sexually deviance). It is amazing to note that they did not differentiate the diagnostic rates because, as they stated, this was "relatively meaningless, as there was considerable overlap, with prisoners sometimes receiving as many as four relevant diagnostic labels, e.g., mental defective, alcoholic psychopath with epilepsy" (p. 145).

Roth and Ervin (1971) examined the records of 1154 males, representing the whole population in a federal prison, for previous and current psychiatric contact. They reported 8% having psychosis. What is interesting is the large amount of noncriminal psychiatric contact. In the total population, 18% had seen a psychiatrist for non-legal purposes: 12% had been outpatients and 10% had had a psychiatric hospitalization. Investigation of criminal psychiatric contacts revealed that 50% of the population had had a contact or multiple contacts: 8% outpatient, 13% hospitalized, 43% seen while in legal custody (only 5.5% were for competency and insanity evaluations), and 13% seen after admission to prison. Overall, including legal and non-legal contacts, just over one-half (56%) had a psychiatric contact: 18% for psychiatric hospitalization and 17% for outpatient assessment. What is evident, is that a large proportion (18%) of the total population had some sort of major mental illness that resulted in intensive mental health treatment. Interestingly, most were identified as mentally-ill after a violent act; only a small proportion of these contacts occurred prior to an arrest for violence (5% for noncriminal and 7% for criminal contacts). It seems that identification of mental illness more readily occurs when authorities are concerned with violent acts.

Jones (1976) reviewed the files of the total population in a state prison and found approximately 20% had a psychiatric diagnosis. The majority were found to be mentally ill when assessed while in prison, rather than this having been identified earlier. He checked state mental institutional records and, of those given a psychiatric diagnosis, 81% were given their first diagnosis after imprisonment. This study highlights the inadequacy and incompleteness of using past psychiatric history, especially if gleaned from state institutional records, as the basis of estimating the prevalence rate of mental illness.

Swank and Winer (1977) studied both 100 consecutive admissions to county jail setting and 445 referrals during the year to a jail's mental health services. The latter group is discussed in the next section. Although only 3% of the consecutive admissions to the jail were diagnosed as schizophrenic, at least 24% had had a previous psychiatric contact: 14% of the total had had a previous psychiatric hospitalization.

Kal (1977) reported on the prevalence rates in a random sample of a jail population. He noted that the population of a county jail comprises a unique heterogeneous composition of psychodiagnostic groups. He makes two important points. First, the number of inmates referred by jail authorities for psychiatric assessment was smaller than the number of mentally ill expected from the prevalence rate found in the random study. More importantly, Kal stated that the number referred "did not even reach the number of seriously psychotic inmates that could be expected on the basis of that sample" (page 463). Second, the florid psychotics that were identified by the authorities were just a small proportion of those suffering from severe psychopathology. In identifying mentally-ill offenders, even some of the floridly psychotic were missed. Furthermore, Kal noted several categories of emotionally-ill offenders were especially likely to be missed: those suffering from affective disorders.

Schuckit, Herman and Schuckit (1977) trained interviewers to do a structured psychiatric history and brief screening interview with 199 males, after which the psychiatrist reviewed the data. It is interesting to note that this is the only study where psychosis is not reported. What is interesting about their data is that they reported the presence of other psychiatric problems within the antisocial personality disorder (APD), the alcohol, and the drug disorder groups.

In Schuckit et al. (1977), of the 31 subjects designated as APD, 26% had a previous psychiatric hospitalization, 27% had had more than two weeks of depression, and 23% had attempted suicide. Also, within the APD group, there was a history of family psychiatric problems: for example, mother depressed 10%, suicidal 10%, hospitalization 27%. Clearly, there was a subgroup of the APD group who manifested a history of affective disorders. Within the other two groups, the findings were similar. Of the 24 inmates with drug disorders, 17% had a previous psychiatric hospitalization, 38% had more than two weeks of depression, and 17% had attempted suicide. Of the 29 inmates with alcohol disorders, 28% had a previous psychiatric hospitalization, 29% had had more than two weeks of depression, and 7% had attempted suicide. In comparison, of the 110 with no diagnosis, 14% had a previous psychiatric hospitalization, none had had more than two weeks of depression, and 2% had attempted suicide. These three groups were found to have a significantly higher proportion of those with depression and suicidal attempts than those with no diagnosis. Clearly, those with APD and alcohol/drug problems have additional psychiatric problems that may meet the criteria for an affective disorder.

Schuckit et al. (1977) stated that only 5%, those with an acute psychiatric disturbance (i.e., confused or depressed), needed active care. They stated that this group did not do well in jail because they were confused, they were harmed by others,

or they attempted suicide. But, Schuckit et al. thought this type of prisoner was relatively easy to pick out from other prisoner. For these psychiatrically disturbed prisoners, their prior arrests were for relatively less serious offences, but their current arrest was for a violent crime.

Gunn, Robertson, Dell, et al. (1978) asked a random sample of prisoners (811) to respond to a questionnaire on medical and psychiatric history and treatment needs. Of the 629 who returned questionnaires, 106 were randomly chosen and followed-up with a psychiatric interview. In examining the characteristics of non-responders, Gunn et al. stated that the "men who did not respond to our forms were, as a group, somewhat more disturbed than those who replied...a larger proportion had had some history of psychotic disturbance" (p. 216). In other words, there was a sampling bias in that those sampled included a lower proportion who could be considered psychiatric cases than did the non-responders. As would be expected, in comparison to other studies in this group they found a very low rate of both schizophrenia (1%) and affective disorder (1%).

James, Gregory, Jones and Rundell (1980) did some studies to assess psychiatric morbidity in prison inmates. The part reported here was a stratified random sample of the jail population. They found a rate of 5% for schizophrenia, 25% for alcoholism, and 35% for personality disorders. Other diagnostic groups were not reported. There are two interesting points about their study. First, there was a large proportion (63%) who were seen as needing treatment: approximately 2% inpatient care, 5% day care, 29% outpatient care, and 31% crisis intervention. Second, there was a difference between the percentage of inmates who reported having mental health and emotional problems (16% reporting problems) and the 35% of inmates perceived by the mental health staff as having mental health problems. James et al. (1980) suggested that there was "a

subgroup that would require even more aggressive pursuit, perhaps even involuntary treatment." (p. 676). There may be many who need treatment above and beyond the number that see themselves as having a mental health problem. Perhaps the identification of the rate of mental illness, by identifying those inmates taking themselves through the mental health service door of the jail, would seriously underestimate those who are mentally ill and are in need of treatment.

Collins and Schlenger (1983) studied 1149 inmates of a state prison. This study, reported by Teplin (1989a) indicate prevalence rates of 1.4% schizophrenia, 1.5% manic depression, and 4.9% major depression were found through using the Diagnostic Interview Schedule (DIS). Other prevalence rates of Axis I, Axis II, or Substance use/dependence disorders were not reported. Nor were multiple diagnoses reported. It is suspected that these were current diagnoses, as the rates were being used in validation of a screening instrument to detect current psychopathology, and current mental illness rates are lower than lifetime rates. The difference between lifetime and current mental illness reflects the difference between the questions of "is this person schizophrenic" versus "is this person suffering from schizophrenia now?". But there was not a large proportion who have a major mental illness.

Krefft and Brittain (1983) studied 194 male and 122 female participants of a random survey of prisoners. Diagnoses were assigned through agreement between independent psychiatric and psychological examinations. Given the rigor of the diagnostic procedure, the large number of psychotic prisoners (10% male and 6% female) was impressive. The purpose of the study was to determine treatment services needed. Unlike the very large proportion (63%) suggested in James et al.'s (1980) study, Krefft and Brittain (1983) still found a sizeable proportion needing treatment. They

found approximately 27% of the males and 32% of the females needing psychiatric treatment (excluding alcohol treatment, e.g., Alcoholics Anonymous groups).

Guy, Platt, Zwerling, and Bullock (1985) did a multilevel study on the mental health status of prisoners of consecutive admissions to a city jail using multiple measures of psychopathology. The data presented in Table 3.03 represents subjects interviewed from a random sample of prisoners: approximately 60% of the random sample. They did not mention what the basis of the attrition was. However, a few were excluded because of their bizarre responses. There was a high rate of major mental illnesses found in this group. Tabulation of the data did not allow a report of the psychiatric history nor the criminal history of this interviewed group.

A unique feature of Guy et al.'s (1985) study is that they compared the need for treatment as assessed by the person (i.e., self expressed need for treatment), the psychologist (determined from psychological tests), and the psychiatrist (determined from a mental status exam). In this sample, 28% of the group had two indicators (i.e., two persons agreeing) and 34% of the group had absolute congruence -- three indicators -- in the need for mental health treatment. Essentially, as Guy et al. concludes " a large number of new admissions to the city jail in the present study, were identifed as "disturbed" and in need of treatment" (p. 50). This suggests that a huge proportion of a jail population, over one-half, could benefit from mental health treatment, and conversely suffer from some sort of mental illness.

Robertson, Bankier and Schwartz (1987) studied 100 female, arrested, consecutive admissions to a remand center. Most were nonviolent offenders (76%) and most were recidivists (73%). The low rate of major mental illness could have been due to the reliance on psychiatric history as the basis of procuring a diagnosis. Since a diagnostic interview was not done, then it was inevitable that multiple diagnoses of

major mental illness with antisocial and/or alcohol/drug use disorders would not be found. Also, it has been found that young adults with major mental illnesses do not have a formal psychiatric history and, since 60% of the sample was under the age of 25, then the sample had a large proportion of subjects for whom you would not expect to find a history of psychiatric illness. In other words, the study did not include methods (e.g., a standardized diagnostic interview) that would detect major mental illnesses.

Daniel, Robins, Reid, and Wilfley (1988) studied 100 sentenced female offenders, who were consecutive admissions to a prison, using the Diagnostic Interview Schedule. Lifetime and six month multiple diagnoses were given; the former obviously indicating a higher prevalence rate. They did a number of very interesting comparisons. First, they noted that those diagnosed as schizophrenic or affective disorder had additional psychiatric problems. Of the 7 schizophrenics, 6 had sexual dysfunction problems, 5 had alcohol dependence problems, and 1 had an alcohol abuse problem. Of the 19 with major depression, only 3 had a "pure" disorder. Of the rest without a major mental illness, 14 had a substance use disorder, 5 with a phobia, and 1 with pathological gambling. Of the 19 women with major depression, 11 were also diagnosed as antisocial personality disordered. The authors noted "that both alcohol and drug use disorders were relatively evenly distributed across other diagnoses, although alcohol use disorders were far more common than drugs among these women" (pp. 335-336).

Daniel et al. (1988) also compared the prevalence rates of the inmates to those found in the same city in the Epidemiologic Catchment Area (ECA) study of Robins et al. (1984). They found the rate of schizophrenia in the inmates to be significantly higher than in the general population: 6 times the rate in the general population. Also, major depression (2.5 times), alcohol abuse/dependence (8 times), drug abuse/dependence (7 times), and antisocial personality disorder (24 times) were significantly more evident in

the inmate population than in the general population. Anxiety and somatoform disorders rates were higher in the inmates, but not signifcantly so.

Daniel et al. (1988) found that the age of the inmate was related to type of disorder. Younger inmates had proportionally more psychiatric disorders. Schizophrenia was more common in the younger group (i.e., under 25). In the older group, major depression and phobias were more common. When the sample was split by age and compared to the general population, the significant differences described above did not change. Thus the differences in prevalence rates were not due to the younger group of inmates having a higher morbidity rate. Daniel et al. also split the sample by race (Non-Black = 66, Black = 34) and compared the prevalence rates to the racial prevalence rates in the general population. In the sample, race was not related to the presence or absence of disorder. However, it was related to type of disorder: especially with major depression. For Non-Black inmates schizophrenia, major depression, alcohol abuse/dependence, and simple phobia were seen significantly more often than in the general Non-Black population; whereas for the Black inmates, these disorders were more prevalent than in the general Black population, but not significantly so. Both groups evidenced more drug abuse/dependence and antisocial personality disorders than did the general population groups. The Black group indicated significantly more obsessive-compulsive disorder; whereas the Non-Black group did not.

In summary, Daniel et al. (1988) found that both the lifetime and 6 month prevalence rates of mental illness in this jail population were significantly higher than those found in the general population. They also found evidence of multiple psychopathology in those with major mental illness. They found that age and race did affect the prevalence rates. Other studies may find that their incident rates reflect the

age and racial composition of their sample. Finally, Daniel et al. noted the need for "reliable and valid screening and diagnosis of mental disorders. The use of standardized interview guide with those prisoners revealed a much higher prevalence of disorder than had been identified in the normal process of classification of the same group" (p. 341).

Teplin (1990) did a large study on male detainees (n=728) made up of, approximately, equal numbers of misdemeanants and felons, entering a large city jail after pre-trial arraignment in court. The sample she reported on (n=639) was approximately 87% Black (Hispanics and other non Caucasian racial groups were excluded for the purposes of this study). Most were young (mean age 26.3 years) and unemployed (57.4%). In sum, most were young, unemployed, black males. The prevalence rates are reported in Table 3.03. She did an interesting comparison to the ECA studies of NIMH, similar to Daniel et al. (1988). Teplin found significantly more schizophrenia, major depression, and mania, both current and lifetime diagnoses, in the jail sample than in the general population. For lifetime diagnoses, schizophrenia and depression were approximately twice as frequent in prison than in the general population; mania was 8 times more frequent. For current diagnoses, schizophrenia and depression were approximately 3 times as frequent and mania 14 times more frequent in the jail than in the general population. To control for effects of age and race, a loglinear analysis was done and Teplin found "the difference in prevalence rates between the jail and general population can be presumed to be constant across levels of age and race" (p. 18). Therefore, the prevalence rates within an age category or within a race category were different between jail and general population samples. In other words, it did not matter whether you subdivided the group by age or by race, the differences between criminals and non-criminals in the prevalence of mental illness still held.

However, this does not mean that prevalence rates between races or over age categories were the same. Teplin (1989b; 1990) found, for example, that the prevalence rates for Blacks were different between jail and general population. However, she did not report a comparison of the prevalence rates between races. The importance of this factor is seen in possible effects of the racial proportion in her sample: could the reported prevalence rates be largely determined by the large porportion of Blacks in her sample? Daniel et al. (1988), discussed above, using almost identical methodology and criteria, found that Black female inmates had more major mental illness than the general Black population, but not significantly so. The difference between Teplin's and Daniel et al.'s studies may be due to differences in sex or site, or simply an artifact of the differences in sample size: Daniel et al. (n=34) would find it much more difficult to find statistically significant differences than Teplin (n=588) simply because of the sample size differences. However, the Daniel et al. data indicated an important point: the rate of major mental illness was higher in the Caucasian group than in the Black group. This suggests that Teplin's prevalence rates could increase as the proportion of Non-Blacks increased. One suspects that the majority of Teplin's sample were young, unemployed, Blacks, entering for a variety of drug, weapon or theft charges, who were either conduct/antisocial personality disordered or culturally disordered. This illustrates that the sample demographic characteristics may influence prevalence rates of major mental illness.

Recently, Bland, Newman, Dyck and Orn (1990) conducted a study of 180 randomly selected male prisoners in a provincial jail in Edmonton, using the DIS. Bland et al. compared the lifetime prevalence rates of mental illnesses in the prisoner sample to rates found in the general population in Edmonton. They found that most (76.7%) of the prison population had a mental disorder. They found that prisoners were twice as likely to have a lifetime psychiatric disorder than the general population. Their rate of

schizophrenia (2.2%) is in the lower end of the range that are found in jail studies, but significantly higher than that found in the general population. They found a rate of 9.4% for obsessive-compulsive disorders, which was listed with the psychotic disorders. It is uncertain whether this grouping was due to the similarity of the two disorders or simply for convenience of presentation in their tables. Affective disorders were found in 22.8% of the prison population which was three times the rate found in the general population. In addition, the prevalence of an alcohol disorder (50.6), drug disorder (24.4), and antisocial personality disorder (47.8%) was inordinately more than that found in the general population.

Bland et al. (1990) found even greater rates of six-month prevalence rates of mental illnesses in prisoners as compared to the general population. This suggests that the prisoner's mental illnesses are more present at the time preceeding the offence or after they are incarcerated than the six-month rate found in the general population: it is difficult to tell which is true because Bland et al. did not report the length of incarceration. In addition, they found the number of individual disorders per prisoner to be higher than that found in the general population. Finally, Bland et al. found that 22.8% of the prisoners had previous suicide attempts which was seven times the rate found in the general population. In relation to the criminalization issue, they concluded that:

> A description of rates and diagnostic categories of psychiatric disorders found in prisoners must be regarded merely as a first step. We cannot say whether these would have been similar findings prior to the move to deinstitutionalize psychiatric patients, or whether many of those now circulating in the prison system would have previously been found in psychiatric hospitals. What is apparent to those working in this areas is that prisons have shortcomings as psychiatric treatment centres. (Bland et al., 1990, p. 411)

Summary

In summary, these studies indicate that a significant proportion of the jail or prison population are schizophrenic: anywhere from 2% to 10%. These studies reported a rate of 9% to 23% of affective disorders. Alcohol disorders ran from 10% to 79%, and drug disorders from 10% to 51%. An antisocial personality disorder was found in 14% to 57% of the general jail populations. One study reported a rate of 16% for anxiety disorders. What is evident is that anywhere from one-tenth to one-third of the jail population could be suffering from a major mental illness. Also, it is clear that few inmates are completely free of mental disorder.

The figures reported above are likely to be conservative -- rates of major mental disorder may be underestimated. It is likely that other disorders that are either secondary to the presenting disorder or are hidden by the current disorder, are present but not reported. In addition, the diagnostic procedure and criteria may mask the presence of other disorders, for example, if diagnosis is not a result of a thorough interview or diagnosis simply focuses on the most prominent disorder. As well, there are many inmates who have multiple disorders.

There is not much evidence in the data for or against the hypothesis of the criminalization of the mentally ill. It is clear that the prevalence rates of mental illness are higher in jail populations than in the general population. However, only three studies have directly made this comparison. These highlight the fact that important differences can be found when the demographic and criminal characteristics of the sample change. It is also clear that these are multiply disordered offenders. Within this set of studies, the intersection between mental illness and criminal behaviour is very large. When we focus on major mental illnesses (i.e., psychotic and affective disorders) there is a substantial proportion, up to one-third, of the jail population who can suffer

from these disorders. In conclusion, there is substantial evidence for the presence of the mentally ill in the criminal justice system. The rates of mental illness in jails are clearly higher than those found in the general population. However, these studies shine scant light on evidence for the other aspects of criminalization -- the relation between major mental illness to criminal justice decision-making has not been thoroughly examined.

Jail mental health and prison hospitals

Jail and prison mental health services are the most affected by the number of inmates with mental disorders. Studies of these services (Table 3.04) look for evidence of (1) the presence of mental disorders in this population, and (2) in any differences between mentally-ill and non-mentally-ill inmates. The usefulness of the prevalence rate data in these samples is dependent upon the process of referral to the mental health service. If the mental health service screens all inmates then the data reflect the rates in the general population. However, if the data is collected from only those referred for assessment or treatment, then extrapolation from these results is tenuous. But this referral process can identify mentally-ill inmates who can then be compared to the general population on variables relevant to the criminalization hypothesis.

Petrich (1976a, 1976b, 1976c) reported a study of 539 persons arrested (80% male) awaiting trial from two Seattle area jails referred to the jails' psychiatric services. In these studies, Petrich reported subsamples of the original sample. Other than reporting demographic characteristics of the sample and characteristics of the referral issues and treatment interventions, Petrich did not compare the mentally ill to other inmates. He noted that the referred psychiatric morbidity rate transformed into a 4.6% rate in the general jail population.

TABLE 3.04

Summary of Research on the Prevalence of Mental Illness in Jail Mental Health Service & Prison Hospital Populations

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Petrich USA (1976c)	539 persons at trial, 434 males, 55% misdemeanor 42% felonies	referrals from medical & staff 1 year, 3% of jail population	psychiatric assessment & treatment or referral	2 Psychiatrists	standardized psychiatric interview & tests	Feighner criteria multiple diagnoses	39% schizophrenic 10% depression 2% mental retardation 27% antisocial personality 10% mania 7% organic brain syndrome 20% alcohol, 23% drug 13% undiagnosed 2% anxiety neurosis 2% miscellaneous
Petrich USA (1976b)	422 males subsample of above	(same as above)	-	-	(same as above)	-	40% schizophrenic 8% depression 10% mania 31% antisocial personality 28% miscellaneous 22% alcohol, 27% drug
Petrich USA (1976b)	102 females subsample of above	(same as above)	-	-	(same as above)	-	39% schizophrenic 17% depression 8% mania 17% antisocial personality 27% miscellaneous 13% alcohol, 11% drug
Petrich USA (1976a)	102 males 80% felony charges, subsample of above	102 seen of approximately 166 referred (same as above)	(same as above)	Psychiatrist	standardized psychiatric interview & history	Feighner criteria multiple diagnoses	31% schizophrenic 7% mania 6% undiagnosed 17% secondary depression 1% mental retardation 2% anxiety neurosis 45% antisocial personality 16% alcohol, 51% drug 5% organic brain syndrome

Table 3.04 continues

TABLE 3.04 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Petrich USA (1976a)	20 females 80% felony charges, subsample of above	20 seen of approximately 36 referred (same as above)	(same as above)	-	(same as above)	-	25% schizophrenia 20% secondary depression 15% depression 5% anxiety neurosis 10% undiagnosed 33% antisocial personality 10% mental retardation 30% alcohol, 15% drug
Swank & Winer USA (1976)	445 males, 3% of county jail population 41% felony at trial, 38% misdemeanor at trial & misdemeanor sentence & others others	routine, staff & self referrals for psychiatric evaluation	psychiatric diagnostic screening for crisis intervention & transfer of serious psychiatric inmates for hospital treatment	Psychiatrist Psychologist	clinical interview	DSM-II	22.9% psychoses 3.4% organic psychoses 2.5% neuroses 2.7% mental deficiency 11.9% alcohol, 8.5% drug 3.4% undiagnosed 4.1% none 14.6% antisocial personality 2.3% convulsive 20.2% other personality disorders 5.8% transitory situational distress
Uhlig USA (1976)	365 special felony inmates maximum security at state prisons	custodial & MHS staff identified disturbed & disrupted inmates	research	Psychologist	file review	DSM-II?	11.5% functional psychoses (schizophrenia & affective disorders) 41.9% severe character/ personality disorder (antisocial, sociopath sexual deviance, alcoholism, drug)
Bonovitz & Guy USA (1979)	3 groups of sentenced prisoners on psychiatric unit (80% of 155, 55, 52)	non random sample of prisoners on prison psychiatric unit	research	MSW MD	file review	DSM-II?	74%-80% schizophrenic 20%-26% between organic syndrome, manic-depression, & character disorder

Table 3.04 continues

TABLE 3.04 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Neilson USA (1979)	(no sample size given) at trial & sentenced county jail population	referrals from self, staff, court & others	evaluation & treatment by mental health jail services	-	-	-	24% psychosis 4% organic brain syndrome 25% others - e.g., anxiety states & suicidal behaviour 47% narcissistic personality disorder
Monahan & McDonough USA (1980)	632 inmates county jail, 81% males 56% misdemeanor 70% at trial	2 year referrals to jail MHS from medical & staff 51%, probation/ parole 25%, court 20%	9% formal psychiatric evaluation for court, rest psychiatric evaluation or treatment (20% informal evaluation for court)	Psychologist	file review	DSM-II?	31.6% schizophrenic 2.8% manic-depression 0.6% depression 4.1% neurotic depression 1.3% neurosis 1.3% psychological adjustment reaction 10.4% nonpsychological adjustment reaction 2.5% organic brain syndrome 22% personality disorder 0.9% mental retardation 5.2% none, 6.6% unknown 6.5% alcohol, 4% drug
Lamb & Grant USA (1982)	102 males at trial 53% felonies 43% misdemeanor	random of referrals by staff, excluded drug/alcohol problems	psychiatric evaluation & treatment	MD MSW	clinical interview & history	DSM-III	75% schizophrenic 2% organic brain syndrome 22% affective disorder 2% adjustment disorder
Lamb & Grant USA (1983)	101 females at trial 37% felonies 60% misdemeanors	random of referrals by staff, excluded drug/alcohol problems	psychiatric evaluation & treatment	MD MSW	clinical interview & history	DSM-III	59% schizophrenic 2% dysthymic 35% affective disorder 2% antisocial personality 2% adjustment disorder

Table 3.04 continues

TABLE 3.04 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Glaser Australia (1985)	50 male sentenced prison psychiatric patients 56% 2+ years 14% life sentence	consecutive admissions to prison psychiatric hospital by other prison psychiatrists, exclude alcohol/drug referrals	psychiatric evaluation & treatment	Psychiatrist	clinical interview & history within 48 hours, testing, file review	DSM-III	16% schizophrenic 26% paranoid schizophrenia 6% schizoaffective disorder 8% other 16% affective disorder 8% organic disorder 16% personality disorder 4% mental retardation
Shively & Petrich USA (1985)	108 sentenced prison psychiatric patients	consecutive admissions to prison psychiatric hospital by other prison psychiatrists	psychiatric evaluation & treatment	multidisci-plinary team	clinical interview?	DSM-III	43.5% schizophrenic 2% organic disorder 31.5% affective disorder 3% other 14.5% personality disorder 5.5% substance abuse
Valdiserri et al. USA (1986)	769 prison sentenced inmates 14% female, most sentenced -2 years	staff or self referral 30% of total prison population	evaluation & treatment	Psychiatrist Psychologist MSW	file review	DSM-III?	17.2% of referrals psychotic (schizophrenic, organic brain syndrome, affective disorder) 5.5% of total prison population

Petrich did note that the major reason for referrals was for manifestly violent and disordered behaviour. For example, 26% of the referrals were for disruptive/fighting behaviour, 24% for bizarre behaviour/incoherent speech, 18% for prior psychiatric treatment, 7% for suicidal attempts/threats, and 6% for anxiety. Examination of the treatment interventions indicated one-half received medication. Consultation with jail staff and changing the jail environment (segregation?) also occurred in most cases. It is evident from the referrals (i.e., from jail staff) and the type of consultation and intervention, that many of the cases were for management difficulties.

Petrich (1976a) also found that 36% of schizophrenics (13 of 36) were jailed for misdemeanors. Petrich (1976a) stated:

> The high percentage of schizophrenic patients arrested on misdemeanor charges points to significant gaps in the psychiatric health services available to these severely handicapped individuals...The criminal activity of these patients may be viewed as only one manifestation of a total psychosocial disability and supports the concept that the jail is an important link in the network of social support services for lower class individuals. (pp. 1441-42).

This suggests that the criminal justice system is picking-up the mentally ill because of a lack of other services, but for less serious offences. But Petrich did not compare mentally-ill offenders to non-mentally-ill offenders to support this supposition.

Swank and Winer (1976), as mentioned above, studied consecutive admission inmates (n=445), who were referred to a jail mental health service. They found a large proportion of this referred group manifested functional psychoses (23%). The authors mentioned that the referral process (i.e., jail staff or self referred) was reasonably successful. However, a closer analysis of their data suggests that a considerable number of mentally-ill inmates were missed. Extrapolation from their data collected on consecutive admissions suggests that only 27% of the total number of inmates during the year with functional psychoses were seen through referral. (The 3% rate found in

the consecutive admissions was multiplied by the 12,453 admissions during the year, equalling 374 persons as compared to 102 seen.) Using the same method, only 20% of the inmates who had a history of long-term or multiple psychiatric hospitalization were seen. Thus many were missed. Also, they noted the repetitive problem of those with major mental illnesses returning to jail: "some individuals returned to the jail 4 or 5 times...in spite of being released to a hospital on each occasion" (Swank & Winer, 1976, p. 1333).

In a pertinent study of utilization of medical services, Twaddle (1976) examined 409 inmates referred for inpatient medical services. Fifty four (13.2%) were referred for a psychiatric disorder. Of the 54 inmates identified as having a psychiatric disorder, 31 were schizophrenics and 11 were antisocial personalities. However, the rate of identified schizophrenia in the total population is only 0.7%, while the rate of antisocial personality is only 2.7%. These rates, especially the latter, are highly unlikely. There is no documentation of methodology or diagnostic criteria used. This study noted that only those with serious psychopathology were referred. However, this rate of 54 out of a total population of 4200 -- 12.86 per 1000 -- is considerably higher than the 2.88 per 1000 psychiatric referral rate found in the general Oklahoma population. Twaddle (1976) noted that the methods used in legal identification of psychiatric illness, for example, done through pretrial competency evaluations or in sentencing, may fail to identify severe psychotic disorders.

Uhlig (1976) specifically studied "special offenders" -- those identified as disturbed and disruptive offenders. This is the mentally ill offender who "also displays an inordinate amount of disruptive behavior, including physical violence and serious, repeated infractions of administrative rules, the compounded result creates management problems of a major order"(p.50). Only 53% of this preselected group had

an identifiable psychiatric disorder, and only 11.5% had a functional psychosis. However, the data reported precludes any statement on whether those with major mental illness were any different in the proportional representation within this special group when compared to the general inmate population.

Bonovitz and Guy (1979) examined the effects on a prison psychiatric service after the implimentation of stricter civil commitment laws. First, there was a huge increase in the number of referrals and admissions to the prison psychiatric unit. In the types of offences of the mentally- ill offenders, they found an increase in the proportion of disorderly conduct and property offences, and a decrease in the number of violent crime after implementation of the new law. Also, the mentally-ill group prisoners (after the implementation) had committed proportionally fewer previous crimes. In summary, after the implementation of the new civil commitment laws, there was an increase in the number of mentally-ill prisoners referred, and these had committed fewer and less serious offences.

Nielson (1979) reported on unknown number of jail inmates referred from a variety of sources (Court, lawyers, jail staff, public health, self). What is unique to this study is the very large number of narcissistic personality disordered inmates (47%) discovered in this sample.

Monahan and McDonough (1980) reported a large study of 632 jail inmates referred to mental health services. The sample came from a variety of referral sources: 5% self, 30% jail medical staff, 25% probation/parole, 21% jail staff, and 20% Court. They found some racial and sex differences related to diagnoses. They found that Blacks were significantly more likely to be diagnosed schizophrenic, and Whites were more likely to be diagnosed as personality disordered. They found that males were

more likely to be diagnosed schizophrenic and females were more frequently diagnosed as drug dependent.

In both Neilsen (1979) and Monahan & McDonough (1980), the differences in types of referral sources obscure the meaning of their results. These two studies have subsamples that are differentiated by the referral source, which correspond to the characteristics of forensic clinics, probation and parole, and jail mental health clinic studies. Prevalence rates can be dependent on the type of referrals. Therefore, differences are expected in the prevalence rates of these subsamples. Overall, sample rates may be influenced by the proportion of different types of referrals representing different types of inmates. [2]

Lamb and Grant (1982, 1983) did two studies, one on males (n=102) and one on females (n=101) referred for psychiatric evaluation. They found the highest prevalence rate of major mental illness in any of the studies discussed: in males 75% schizophrenia and 22% affective disorder, and in females 59% schizophrenia and 35% affective disorder. In the males, approximately 1/2 were for misdemeanors and about 1/3 of all charges were for violence. Approximately 1/3 had been living on the streets prior to arrest, and nearly 1/2 had been in psychiatric boarding homes. In the females, 60% were charged with misdemeanors and 20% of the charges were for violence. Given the types of offences committed and the high rate of schizophrenia, it is clear that a sizeable proportion of the schizophrenics were incarcerated for minor offences. In describing these groups, they stated "it is clear this population has had extensive experience with both the criminal justice and mental health systems, is characterized by severe acute

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2 Comparison of data acroos different sites, seen in the differences between results in the tables of this chapter, suggests that there will be significant differences in the prevalence rates due to differences in sites. Site differences also reflect referral, selection and sampling differences and this will be discussed in more detail in the next chapter.

and chronic mental illness, and generally functions at a low level." (Lamb & Grant, 1982, p. 19).

Glaser (1985) studied 50 males referred to an Australian prison psychiatric hospital unit. This unit excluded alcoholics and drug addicts. It did include remanded persons but the majority were sentenced prisoners (some for a considerable length of time). Referral from other prisons seemed to be based on psychiatric referral of very disturbed and disruptive prisoners. There are a number of interesting observations we can make from his data.

In comparison to jail census population statistics, Glaser (1985) stated that this group had a significantly higher proportion of burglaries (28%) and assaults (18%), but not proportionally more murder or manslaughter (12%) or sexual offences (14%). Most (72%) had many previous convictions (median 21), but only 32% had a previous conviction for a serious assault against a person. In the total group, approximately 20% had had multiple convictions for assaults. So overall, most had multiple contacts with the criminal justice system for non-person related offences.

Glaser provided Axis II, III, IV and V diagnoses. As noted, 16% had a personality disorder as the primary diagnosis. However, an additional 58% had a personality disorder as a secondary diagnosis. Of the total with a personality disorder (74%), these included: 42% antisocial, 12% borderline, and 20% mixed personality disordered. Therefore, just over one-half of those with a major mental illness also had a personality disorder.

Also, many suffered from chronic physical disabilities (just over one-half), and many of these were results of either their disordered or criminal lifestyles. Approximately one-half had a serious impairment in their current functioning in jail.

For approximately one-quarter of them, jail was an improvement in their lives from living on the streets. As Glaser (1985) stated, they "expressed relief that they had been incarcerated at times of increasing disorganization in their lives" (p. 48). Therefore, many with major mental illness had had a disruptive and disturbed lifestyle on the streets that became disruptive and disturbed behaviour in prison.

Although they had been screened to exclude alcoholics or drug addicts, 76% had abused alcohol at the time of the offence, the majority being chronic alcoholics. Therefore, even for those who were seen as being primarily mentally ill, there was a huge prevalence rate of alcohol and drug disorders. As well, as one might expect, they had a high rate of previous psychiatric hospitalization (84%).

There also seemed to be a subgroup of schizophrenics remanded for violent crimes, and for whom this was their first offence. Glaser described them as "seriously ill, socially isolated,...[with] apparently normal premorbid personalities with no prior criminal record and no involvement with drugs or alcohol...the offences occurred in the course of a florid stage in their illness." (p. 49). So a portion of the schizophrenics were first-time violent offenders for whom insanity was an issue. But there was also a large number of schizophrenics who would not be identified through the raising of the insanity issue.

In summary, Glaser's (1985) study indicated that this group was not more or less criminal than other criminal populations. More importantly, despite this being a group with major mental illnesses, it was quite heterogenous in the types of personalities, personality disorders, premorbid functioning, current functioning and types of offences committed. As Glaser noted, this heterogeneity had important implications for management and treatment of these offenders. By and large the more differentiated

offenders were, the more difficult it was to apply simple management policies and strategies.

Valdiserri, Carroll and Hartl (1986) identified psychotic inmates referred to a mental health clinic in a county jail. The psychotic inmates represented approximately 17% of the referrals and 5.5% of the total jail population. They compared the psychotic to non-psychotic inmates to see if they "tended to be detained and incarcerated as an alternative to psychiatric institutionalization and whether the charges against them were less serious than those that ordinarily result in incarceration" (p. 163).

Valdiserri et al. (1986) found that "the psychotic inmates were, to an inordinate degree, incarcerated on minor charges, especially charges we cateorized as lesser offences" (p. 165). Lesser offences included drunkenness, disorderliness, public harrassment, threats, and trespassing. The mentally-ill inmates did not commit more violent offences, and of major offences, they committed proportionally less drug, sex, property, and fraud offences than the non-psychotic inmates. When simple assaults, which the psychotic inmates committed more of, are included in the lesser offence category, the difference is striking: 41% of the offences of the mentally-ill group were lesser offences when compared to 9% of the non-mentally-ill group.

Valdiserri et al. suggested that these findings indicate that mental illness, that is, the resulting behaviours, had been criminalized. Also, they stated that there may be subgroups of mentally-ill offenders. There may be two groups of mentally-ill offenders who are quite different from each other. For example, there may be mentally-ill offenders who commit major or violent offences versus those who continue to commit minor offences.

Summary

In summary, these studies indicate that most of the persons referred to a jail or prison mental health service are suffering from a major mental illness. The prevalence rates of schizophrenia in this preselected population ranged from 24% to 80%. Those with an affective disorder ranged from 8% to 22%. The range for alcohol disorders was 6% to 30% for an average, approximately, of 17%. The range for drug disorders was 4% to 51% for an average of approximately 22%. The range for antisocial personality disorders was 2% to 45% for an average of 27%. There were reports of other types of personality disorders. There were few inmates without any disorder. The high rates of psychotic disorders suggests that preselection (i.e., referral) processes were adequate in detecting those who were obviously mentally-ill. Whoever initiated the referral process did not seem to send many non-mentally-ill offenders for assessment.

However, it is important to note that those studies that could extrapolate from these rates to a rate for the general jail population had some inherent difficulties. It is accepted that this extrapolation process will seriously underestimate the extent of major mental illness in the jail or prison. It seems that those who are referred are those who are blatantly mentally ill as usually manifested by acts of violence. The ones referred were usually those who were management problems. This "in house" or staff referral process will miss many who do not manifest their mental illness in this fashion. The quiet or withdrawn mentally ill, especially those with an affective disorder (unless actively suicidal), would not be identified and referred. Also, characteristics of race and sex seem to have an influence on the detected prevalence rates.

There is not much evidence contained in these studies of relevance to the criminalization issue. Because, this was a preselected group defined by the referral process, we cannot compare prevalence rates from this population to the general

population. Many studies commented on the fact that many of the schizophrenics were in jail for misdemeanors and minor offences (e.g., public order and nuisance, property offences). One suggested that this was due to stricter committment laws which resulted in the person being sent to the jail. However, there were no comparisons to other non-psychotic offenders. There was the suggestion that these offenders with major mental illness were multiple entries, but again there was no comparison made to substantiate this.

Probation and parole studies

Probation studies offer a different site to be sampled. Unlike the previous sites, this one site includes those convicted but not incarcerated. Parole studies include those who were released from incarceration in provincial jails and federal penitentiaries (and State and Federal jails and prisons) to serve their sentence in the community. These studies are reported in Table 3.05.

Guze, Tuason, Garfield, Stewart and Picken (1962) studied men on probation, on parole, and those about to be released from incarceration, from both a state prison and a reformatory. They were interested in determining the prevalence and kinds of psychiatric disorders, and the relation of these disorders to the person's history. The majority of subjects were sociopathic (72%) and nearly one-half were alcoholic (43%). There was a remarkably low prevalence rate of schizophrenia (1.5%). Closer analysis suggests that there were considerable cross-diagnoses, such as alcoholism co-occuring with sociopathy, schizophrenia and anxiety neurosis. In comparing alcoholics with non alcoholics, Guze et al. (1962) found the former to have significantly more alcoholism in the family, suicide history in the family, attempted suicide in the person, wanderlust (e.g., being a "bum"), and history of arrests. However, the latter finding was complicated by the fact that many arrests were for alcohol related offences. What is interesting,

TABLE 3.05

Summary of Research on the Prevalence of Mental Illness in Probation or Parole Populations

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Guze et al. USA (1962)	223 male criminals 46 probationers, 75 parolees, 49 prison "flat timers", 53 reformatory "flat timers"	consecutive referrals to State Probation & Parole Board	routine psychiatric evaluation	Psychiatrists	structured psychiatric interview & history	structured criteria, precurser to Feighner	1% schizophrenic 1% organic brain syndrome 12% anxiety neurosis 1% epilepsy 79% sociopathic 1% mental deficiency 54% alcoholism 5% drug
Guze et al. USA (1969)	176 males subsamples of above	follow-up on above study	research	Psychiatrists	structured psychiatric interview & history	same as above initially or at follow-up	2% schizophrenic 2% organic brain syndrome 17% anxiety neurosis 81% sociopathic 56% alcoholism 11% drug
Cloninger & Guze USA (1970)	66 females, felony, on probation or parole	90% of all female probationees or parolees in a State	research	MD's	clinical interview & history	Feighner criteria, multiple diagnoses	1.5% schizophrenic 12% undiagnosed 6% depression 41% hysteria 11% anxiety neurosis 6% mental deficiency 65% sociopathic 47% alcoholism 26% drug

Table 3.05 continues

TABLE 3.05 continued

Study	Type of Sample	Referral (Sampling)	Purpose of Referral	Raters	Methods/ Measures	Criteria	Findings
Sapsford & Fairhead England (1980)	345 male reconvicted parolees	10% stratified random sample of inmates in prison, 671 of 771 parolees, at a 2 year follow-up	research	researcher	file review	ICD	2.3% psychotic 11.6% neurotic 13.3% personality disorder 1.2% sexual deviance 6.7% alcoholism 4.5% drug 2% mental retardation 2.7% organic brain syndrome 55.7% none
Sapsford & Fairhead England (1980)	326 male non-reconvicted parolees	"	"	"	"	"	1.5% psychotic 7.4% neurotic 8.6% personality disorder 1% sexual deviance 3.1% alcoholism 4.3% drug 0.3% mental retardation 2.1% organic brain syndrome 72.1% none
Adams USA (1983)	3426 federal parolees	random, excluding those convicted under drug laws	research	researcher	file review	history of prior mental hospital-ization	8.7% former mental hospitalization

is that this group of antisocial alcoholic offenders also had serious emotional problems as evidenced by attempts at suicide.

Guze, Goodwin and Crane (1969) did a follow-up interview on the above sample of community-based offenders to determine the validity of the original diagnoses using more specific criteria. There was remarkable consistency in diagnoses over time and, for all diagnoses except schizophrenia, there was a slight increase in the prevalence rates. They also found 1.5% diagnosed as manic-depressives, but they tended to discount this fact that all 3 persons were also diagnosed with either sociopathy or alcoholism. They noted that the differences in results between interviews was due not to the lack of candour of the interviewees, but to the differences in interviewers or to a lack of understanding of the questions. Of most interest here, is that they did not find an increased rate of major mental illness as compared to rates expected to be found in the general population.

Sapsford and Fairhead (1980) studied the differences in the reconviction rates of British parolees designated as mentally-disordered, maladjusted, or normal. Earlier research had found a strong relation between homelessness and reconviction for minor crimes, and between homelessness and mental abnormality (Banks & Fairhead, 1976), but the relation between mental abnormality and reconviction had not been addressed.

Sapsford and Fairhead (1980) found a significant difference in the reconviction rates among those who were mentally disordered (65%) and maladjusted (62%) compared to those who were normal (31%). There was also a significant correlation ($r=.31$) between mental disorder and reconviction. Comparison of reconviction rates of specific diagnostic categories to normals indicated that mentally retarded (88%), alcoholics (72%), neurotics (63%) psychotics (62%), and personality disorders (62%) had higher rates than normals.

What is also interesting about this study, is that, while mental disorder was signicantly correlated to reconviction and independently contributed significantly to the prediction of reconviction, it did not add significantly to the prediction using a parole prediction index based on social and criminal history. The most important variable of the parole index was the length of the person's criminal history. One problem with this study was that it did not examine whether those with mental disorders had a significantly longer history of criminal convictions. Since there was a significant correlation between the parole index and mental disorder ($r=.40$), perhaps what was occurring was that the index targeted those who were mentally disordered and had significant social disruption and lengthy criminal records. All in all, those who were mentally disordered offenders were more likely than normal offenders to end up in prison again.

Steadman & Ribner (1980) were concerned with the reciprocal perceptions of correctional and mental health institutional administrators that the correctional system is "indundated with mentally ill offenders" and mental hospitals have more patients that "could or should be handled by the police" (p. 1115). They examined data of parole releasees from jail and prison in 1968 and compared them to 1975 releasees. Their data do not suggest a consistent increase in those with a history of mental hospitalization over the seven years. However, Steadman and Ribner (1980) did find a two- to three-fold increase in the number of repetitive hospital admissions. They suggested that those with mental illness, as identified by hospital admission, were simply coming through the systems more often.

Adams (1983) did a very pertinent and interesting study on a large sample of inmates released to parole. He compared inmates with a mental hospital history (287) to those with no such history (3176) on demographic, previous criminal history, prison

status, prison performance, and post-release adjustment variables. He excluded those with hospitalizations for drug and alcohol addictions from the pool of former mental patients.

Adams (1983) found that the former mental patients were significantly more likely to be white, single and living alone. The former mental patients had significantly more prior convictions than the other inmates: the former had 3 times more than the latter group. They had twice as many prior incarcerations and more prior prison commitments, both of which were significant differences. In terms of the most serious offence characteristics that brought them to prison, there were significant differences between groups on the distribution of types of offences. The former mental patients had proportionally more person and property offences. They also had significantly more assaults and weapons involved in their offences.

Adams (1983) also found a significant difference in assignment to different custody classifications: minimum, medium and maximum security. A larger proportion of the former mental patients were assigned to more secure placements. They were given significantly longer sentences; the median for the former mental patient group was 54 months while the other group received a median of 36 months. Also, they served significantly longer sentences: a 24 month average to a 19 month average. However, these comparisons did not take into account any confounding differences due to index offences.

Adams (1983) examined differences in prison behaviour of the two groups, specifically prison infractions. Prison infractions were examined in three ways: current escape history, assaultive infractions with a guilty finding, and infractions that lead to prison punishments (e.g., segregation, loss of good time, loss of privileges, etc.). He did not include reprimand and misconduct reports, thus, only serious infractions with

serious consequences were included. Adams found former mental patients had more escapes (4.2% to 2.6%), and significantly more assaultive infractions (6.6% to 2.7%) and prison punishments (25.8% to 15.3%) than the other group. When the data were collapsed into one measure of infractions, the former mental patient group had significantly more infractions (1 infraction - 11.8%, 2 infractions - 8.0%, and 3+ infractions - 7.6%) than the other group (1 infraction - 8.6%, 2 infractions - 4.2%, and 3+ infractions - 3.6%). He also found that the former group had proportionally more repetitive violations.

One problem with these data was that they were difficult to correct for differences in time served. Adams (1983) calculated an annual rate of infractions per 100 inmates and found a substantially higher rate in the former mental patients (21.6 infractions per 100 inmates per year) than in the other group (14.0 rate). This difference was consistent even when corrected for prior criminal convictions, prior prison commitments, custody classification, and age. Thus, the difference was robust. Since infractions may occur earlier in a sentence (Flanagan, 1980) and the former mental patients served longer time, this measure may have underestimate the infraction rate of former mental patients.

Adams (1983) also examined post-prison performance. Failure was defined as any reconviction or return to prison for a violation of parole. Seventy-four percent (73.9%) of the former mental patients were successful while 82.5% of the other group were successful. While this difference is small it is significant. In a two year follow-up there was an interactive effect of prior convictions on post-prison performance: past history was strongly related to future performance. Finally, there were slight differences between groups when analyzed by prior convictions.

In summary, Adams (1983) study indicated that former mental patients were more criminal, created more problems in prison, and had slightly more post-prison adjustment problems as measured by contact with the criminal justice system.

Summary

While there were few studies in this area, and most did not report prevalence rates of mental illness, these studies did get to the heart of the criminalization question. Adams' (1983) study, in particular, posed important research questions regarding differences between the mentally-ill offenders and other offenders. He showed that the mentally ill were treated differently by the criminal justice system and that they receive different consequences, such as sentence time and prison punishments, that may be due to their mental illness status. But this is not directly known from his study as he used a retrospective measure of mental illness.

Conclusion

The foregoing sections reviewed evidence on the prevalence of mental illness in criminal justice system populations. Table 3.06 summarizes these findings across sites and also provides community or general population prevalence rates taken from Canadian and United States studies for comparison. Two things are clear: first, the prevalence rates for mental illness in all criminal justice system sites are higher than those found in the general population. It is clear that, although the criminal justice system does not want "crazies" in its jails, it does have them. In the incarcerated criminal population, the rates of major mental illness are substantially higher than that found in general population. Only the three latest jail studies have examined this directly and found a statistically significantly higher prevalence rates of mental illness in the criminal populations when compared to the general population (Daniel et

Table 3.06

Lifetime prevalence rates of mental disorders in criminal justice system settings and the general population

	Court * clinics	Forensic clinics	Jails & Prisons	Jail M.H.S.	Probation & Parole **	General population
Schizophrenia	12%	17%-45%	2%-10%	24%-80%	1%-3%	1%-2%
Affective disorders	---	1%-16%	9%-23%	8%-37%	---	4%-8%
Anxiety disorders	---	---	16%	---	---	7%-24%
Alcohol disorders	12%	10%-48%	11%-79%	7%-30%	3%-54%	19%-29%
Drug disorders	6%	6%-26%	6%-57%	4%-51%	4%-12%	6%-8%
Antisocial P.D.	7%	7%-50%	13%-57%	2%-45%	9%-81%	4%-5%
Organic Brain Syndromes	-	2%-7%	1%-2%	2%-8%	3%-7%	

* only two studies
** only four studies

al., 1988; Teplin 1989b; Bland et al., 1990).

Second, the prevalence rates are higher in criminal justice system sites that exist for the assessment and treatment of persons with possible mental illness. Of course in those sites (forensic hospitals and clinics and jail mental health services) where inmates are pre-selected for the presence of mental illness there exists a substantial rate of major mental illness. Therefore, we would expect these results and they are not surprising.

Thus, in the sense that criminalization is evidenced by the fact of the mentally ill in the criminal justice system, the mentally ill are being criminalized. That is, there is a higher proportion of them in the criminal justice system than what we would expect from rates in the general population. But we do not know why this is so. Evidence regarding other aspects of criminalization of the mentally ill is lacking. There are still a number of questions to be answered: Does the criminal justice system treat the mentally ill in different way from their non-mentally-ill counterparts? Are the types of offences that the mentally ill have committed, their previous criminal history, the consequences they receive through criminal justice decision-making, and their jail performances different from the criminal activity and criminal justice system involvement of the non-mentally ill?

Some studies (e.g., Bowden, 1978; Lamb & Grant, 1982, 1983; Valdiserri et al., 1984) suggested that the mentally ill are jailed for less serious offences than are the non-mentally ill, but direct comparisons were not found. Beck et al. (1984) found that the mentally ill were given more serious criminal consequences - found guilty more often and given longer sentences - than the non-mentally-ill offender. Adams (1983) found that the mentally-ill parolees had committed more prison infractions and punishments than the non-mentally-ill parolees. But it is surprising, given the large

number of criminal justice system studies, that differences between mentally-ill and non-mentally-ill inmates have not been more thoroughly examined.

CHAPTER IV

METHODOLOGICAL PROBLEMS IN THE RESEARCH

> Attempts to determine the incidence of mental illness in the prison population have been fraught with difficulites. Inadequate documentation of psychiatric histories, difficulty of follow-up after initial evaluation, lack of subject cooperation, and the squalid conditions of many prisons have discouraged many investigators from evaluating the prison population (Halleck, 1965). Even among those studies that have been performed, comparative analysis of results is difficult. It is difficult to find two studies with similar diagnostic criteria and approaches. Furthermore, the particular prison population studied may significantly influence the results of a study. The population of a maximum security federal penitentiary contains a larger proportion of recidivists and "lifers"; such a population might be expected to have higher rates of mental illness than that in a minimum security state facility (Roth & Ervin, 1971). In addition, the incidence of mental illness among criminal offenders may vary with the nature of crime committed (Abrahamsen, 1960). (Leuchter, 1981, p. 135)

> [T]he groups were not always unselected, the diagnosic crieria were seldom defined, evidence of a systematic and uniform examination enquiring into the presence of the common and characteristic symptoms of the frequently encountered psychiatric illnesses was never presented, and none of the studies were concerned with prognosis and follow-up. (Guze, 1969, p. 512)

Introduction

The previous chapter reviewed a number of studies that have examined the prevalence of mental illness in criminal justice system populations. Overall, the studies are of poor methodological quality (Teplin, 1984) and methodological vaguaries makes this research problematic. A problem in past reviews (cf., Coid, 1984; Guze, 1976; Orr, 1978; Prins 1980; Teplin, 1983) has been the failure to consider the effects of measuring mental illness at different sites in the criminal justice system. As seen in Chapter Three, epidemiological results are dependent upon where in the criminal justice the sample is drawn from. In addition, many studies of mental illness in the criminal justice system

are difficult to interpret because of methodological problems. The following section summarizes the more pervasive and general methodological problems.

In general, there is a lack of methodological consistency and conformity between studies. Sample characteristics, assessment methods, and diagnostic criteria vary, making it difficult to compare results between studies: interpretation of different epidemiological results is confounded by methodological differences. Some of the lack of consistency is unavoidable as the studies span decades, and criteria and methods have changed over that time. For example, changes in diagnostic nomenclature and criteria make it difficult to compare results of studies from different decades. These changes become an important problem when we want to compare prevalence rates of mental illness in the criminal justice system before and after major social policy changes (e.g., deinstitutionalization). Even within periods of standardized diagnostic nomenclature, (e.g., all studies using DSM-III) there are still methodological differences between studies that preclude comparison of results.

There are two major areas of methodological problems: (1) population sampling processes that determine sample characteristics and (2) diagnostic methods and criteria. Tables 3.1 to 3.5 summarize the methodological characteristics of this research.

Sample Characteristics

Sample characteristics are determined by sampling variables, and differences in these lead to different results. Sampling processes reflect differences in the site, the referral processes, and the selection processes that determine the sample characteristics. Sites are identified as different points in the criminal justice system and are differentiated by their purpose: they either contain persons or are responsible for them for the criminal justice system, such as holding them after arrest, to await trial, to

serve sentence, or to determine legal issues. Site and purpose characteristics result in defining referral and inclusionary and exclusionary characteristics.

Site

Epidemiological results are dependent on the site of the study: the place in the criminal justice system the sample is drawn from. Different sites - court, lock-ups and jail, forensic clinics and hospitals, jail mental health services, jails and prisons, parole and probation offices - are important in determining the prevalence rates of mental illness in the criminal justice system. Site differences are the most important determinant in differences in results. Although some consistency in results between sites is expected because inmates move from site to site (e.g., from court to jail to parole), each site has different inclusionary and exclusionary membership criteria that lead to major differences in prevalence rates. Some sites have specific inclusionary criteria that focus on mental illness. For example, the criteria for inclusion at a forensic clinic is the court's suspicion that the accused's mental state may interfere with the justice of criminal proceedings (e.g., fitness to stand trial). Other entry criteria to a site may also influence the prevalence of mental illness. For example, the rate of mental illness is dependent on the security ratings of prisons (e.g., maximum versus minimum security) (Adams, 1983; Leuchter, 1981; Roth & Ervin, 1971).

Another problem is related to the status or purpose of the site: the types of prisoners it holds. In many jails there is a mix of types of prisoners being held. In the United States there are two types of places for incarcerated prisoners: jails and prisons. Jails can contain three groups of prisoners: prisoners arrested and awaiting trial for a misdemeanor or felony charges, those convicted and awaiting sentencing, and those serving a misdemeanor sentence. State or Federal prisons contain those sentenced for felonies. Some locations have local lockups (e.g., city police jails) in which those

charged for offences are held for the initial 24 to 48 hours, after which they are transferred to a county jail. The above differences are roughly equivalent to Canadian differences between provincial and federal corrections. In Canada, depending upon the location, provincial jails can contain all three types of prisoners: those awaiting trial, those awaiting sentencing, and those serving a provincial sentence (i.e., sentences of 2 years less a day), whereas federal prisons contain only prisoners sentenced to two years or more.

The prevalence rate of mental illness may be differentially distributed for groups of prisoners. The prevalence of mental illness is different between different crimes (Roth & Ervin, 1971) and for sentenced and non-sentenced prisoners (Leuchter, 1981). We have seen that there is a differential distribution of types of offenses among subgroups of mentally-ill offenders. The mirror-image of this is to suggest that different types of offenses (e.g., misdemeanors vs. felonies, nuisance vs. property vs. person offences) have a different proportion of mentally-ill versus non-mentally-ill offenders and/or have a different distribution of mental illness. Therefore, as sites have different purposes (some with single and some with multiple purposes), they include different groups of specific legally defined offenders, and the type, or proportional representation of types, will effect the prevalence rate of mental illness.

A good example of this problem is seen in the Swank and Winer (1976) study. This county jail population was divided, approximately, into one-thirds of those awaiting trial for misdemeanors, those awaiting trial for felonies, and those serving sentence for misdemeanors. Since the prevalence of mental illness has been found to be different in each subgroup when they are defined by offense (Roth & Ervin, 1971) and legal status (Leuchter, 1981), the prevalence rate could be dependent upon the proportions of each subgroup.

Referral process

Another problem related to site differences arises from the referral process. There are two basic sites: those that contain a general population of criminals, and those that contain a selected group of criminals from the general population of criminals. The selection process reflects criminal justice system decisions (e.g., the determination of fitness to stand trial) and is indicated by the referral process. Forensic clinics and hospitals, jail mental health services, and prison psychiatric services and hospitals are sites where the inmate has been referred. Court, jail, prison, and parole sites usually represent the general criminal population. As expected, in general, the former sites have a much higher rate of mental illness than the latter sites.

Within a site, differences in the referral question or referral source define subgroups of prisoners which also confound the results. For example, some studies use a sample based on those referred to the jail psychiatric services (see Table 3.4). Referrals made from inside the jail can be from custody staff (sherriffs, guards), medical staff, social service staff, or self referrals. Referrals originating outside the jail can be from the courts, lawyers, mental health professionals, or relatives. Since there are different referral sources, there may be groups of prisoners with different prevalence rates. For example, in Nielsen's (1979) study, the sample had been referred by the courts, attorneys, court services, jail administration, public health professionals, self and family. Monohan and McDonough (1980) the source of referrals to their jail mental health service were similar to the ones in Neilsen's (1979) study. In both studies, referrals came from three basic groups: court referred, jail staff referred, and self and family referred. The court referrals are similiar to referrals to forensic clinics from court, while jail or self referral are the usual jail mental health service referrals. The prevalence and type of mental illnesses in a forensic clinic is different to that of jail mental health referrals (cf. Table 3.2 & Table 3.4). Therefore, the group similiar to a forensic clinic referral

may have a different prevalence rate to the staff and self referrals. In these studies, it is not known whether the rate of mental illness is dependent upon the porportions of the subgroups within the total. This is a sampling problem: the prevalence of mental illness may vary between subgroups of referred prisoners and the overall prevalence rate may be determined by the proportions of the subgroups within the sample.

Another problem arising from the referral process is that of drawing conclusions from epidemiological studies when there is a very high incident of mental illness in referred patients. For example, in Lamb and Grant's (1982) study over 80% of those referred exhibited severe and overt psychopatholgy. Petrich's (1976) study indicated that 39% of those referred were diagnosed as schizophrenic. This indicates that the referral process can be accurate and those making the referral (e.g., staff) are good at identifying psychiatric problems. This is again reflected in the purpose of evaluation. If the purpose of the referral is for a pretrial assessment is to determine competency or criminal responsibility (insanity), a high prevalence of mental illness in the referred group simply reflects the ability of the court to identify those prisoners who are mentally ill. Since Petrich's sample was only 3% of the total jail population, the prevalence rate of schizophrenia is only 1%. Realizing this puts his results in a better perspective from which to address the criminalization issue.

However, it is very important to note that a high prevalence rate in those referred (e.g., referred to a prison psychiatric hospital (cf. Glasser, 1985)) does not mean that all, or even most, of the mentally-ill offenders have been identified in the site's general population (i.e., in the general prison population). In prediction theory terms, identifying mentally-ill versus non-mentally-ill offenders is a comparison of the accuracy of the referral to the psychiatric assessment. The assessment after the referral

simply differentiates the mentally-ill from the non-mentally-ill in the referred population. [1]

A tell-tale statistic in measuring the adequacy of the referral process in the initial identification of mentally-ill offenders referred to jail mental health services is found in comparing the number of prisoners referred to jail mental health services with the prevalence rate of mental illness in the jail population. The latter is obtained through a random sampling of the jail population. Kal (1977) found that the number of offenders referred to jail mental health services was much lower than the expected number of mentally-ill offenders extrapolated from a random sample of the jal population. In fact, Kal (1977) stated that the number of offenders referred did not even match the number of seriously psychotic offenders expected in the general jail population. Teplin's (1989b) addresses some of these issues of identification and referral.

It should be noted that these sampling problems become less important if all one wants to do is determine the prevalence of mental illness at a particular site, for example, the prevalence of mentally-ill clients through a particular clinic or service door. But it should be noted that differences in the referral process result in sampling differences and there could be a different rate of mental illness within subgroups of the sample examined.

As already noted, the referral source determines some of the characteristics of the sample. In addition referrals from a particular source (e.g., court) are not homogeneous. For example, court referrals represent a heterogeneous population of court pre-sentence, insanity, and fitness referrals, and each group may have a different prevalence rate. The nature of the referral (i.e., the purpose of the assessment) has an

[1] This will be more fully discussed later in this chapter.

effect on determining prevalence rates within the sample. For example, in Binns' et al. (1969b) British study there were two different prevalence rates for psychosis depending upon the purpose of the referral: those referred for assessment under Section 54 to the Mental Health Act had a higher prevalence of psychosis (32.5%) than those referred for a non-Section 54 assessment (4.5%).

In Binns' et al. (1969b) study there were different prevalences rate among subgroups of persons referred under different sections of the mental health act. This is also found in hospital studies: both the distribution and the rate of different diagnoses vary between voluntary and involuntary patients. In forensic clinic studies the rate and distribution of mental illness vary among subgroups which are defined by their legal status (i.e., subgroups are defined by the referral question). For example, there is a higher proportion of chronic severe mental illness (e.g., schizophrenia) in fitness and insanity referrals than in pre-sentence referrals.

Another related problem is found in the differences in the purpose of the assessment, for example, differences in the prevalence rates that are determined by judicial or by clinical decisions. This simply reflects that a person may be mentally ill from a clinical point of view, but not from a judicial point of view. For example, a person can be clinically diagnosed as schizophrenic, but legally determined to be sane at the time of the crime. By the former decision he is identified as mentally ill, but by the latter decision, for judicial purposes, he is not. This was also found in Roesch et al. (1981) where one-third of those diagnosed as psychotic were found fit to stand trial. If the prevalence rate of mentally-ill offenders was based on the designation of unfit to stand trial, then the number of mentally-ill offenders would be significantly underestimated.

Sampling procedure

A basic methodological problem is that some studies employ research methodology (e.g., stratified random sampling), whereas others use inplace referral procedures, to select their subjects. This creates differences among estimates of the prevalence of mental illness in jail populations. For example, in Coid's (1984) review of prevalence rates of mental illness in criminal justice system sites he did not note that sampling differences (e.g., site, criteria, and method differences) could account for the variation in the prevalence rates. The Swank and Winer (1976) study provides an excellent illustration of the differences in rates of mental illness due to differences in sampling procedures. They found that 26.3% of those referred for psychiatric assessment (jail mental health services (Table 3.4) were diagnosed as psychotic; whereas, of those from a random sample of all jail prisoners (Table 3.3), only 5% were psychotic.

A problem similiar to the problems of the referral process arises from differences in traditional research selection or sampling procedures. Studies have included different procedures, such as representative, random, voluntary, and consecutive samples. The initial selection can be from either a preselected group (i.e., referred) or from the total population. Some studies are based on returned questionaires. For example, Roper's (1950, 1951) and Binns' et al. (1969) studies are based on a random sample of those who returned mailed questionnaires in an original random sample. Krefft et al. (1983a, 1983b) used a voluntary subsample taken from a random sample. Guy et al. (1985) used a semi-random sample which was described as being a representative sample of 1/10 of all consecutive admissions, but in fact was based on the attrition from a 1/3 random sample of the admissions. Are samples of those who volunteer, or do remain, or are compliant different from true random or consecutive samples, and how do these differences influence results? It is important to

note that Roper (1950, 1951) found that the non-respondent inmates were more psychiatrically disturbed.

Consecutive admission samples can have a very low dropout rate because psychiatric assessment is usually a part of the admission procedure for all inmates. Random or representative samples have the consent and dropout problems inherent in any voluntary sample. True voluntary samples comprise of only those who return questionnaires or volunteer to be interviewed. Schuckitt's et al. (1977) study is based on those volunteering to be interviewed from a consecutive sample and represented 95% of the total number possible. Swank and Winer (1976) saw 100 consecutive admissions. Krefft and Brittain (1983) only interviewed 66% of a random sample: exclusion was determined by the inmate leaving the prison or refusing to participate. Again, are those subjects who volunteer, do remain, do respond, are compliant or do consent, different from those who do not? Are offenders who give consent to be interviewed more or less disturbed or disruptive than those who do not consent? Subsamples of consenting versus non-consenting offenders can be compared, but this has not been consistently addressed in this research.

The prevalence of mental illness may vary between different types of samples that are obtained. But there is no way of getting around this problem. In fact, this problem stimulates interesting research: examining different samples for differences in findings. But research reviews should note that the basis of differences in findings are a result of sampling differences.

Inclusionary and exclusionary criteria

A final problem of sampling involves the inclusionary or exclusionary criteria that determine who will be included in a study. These criteria are reflected in the site,

referral, and sampling procedure of a particular study. These characteristics reflect two types of inclusionary and exclusionary criteria that define the sample: (1) inclusionary and exclusionary criteria that are a result of the purpose of the site and the referral process, and (2) inclusionary and exclusionary criteria that are the result of the study criteria. If the study includes all members (e.g., consecutive admissions) or is a representative or random sample, then the inclusionary and exclusionary criteria are those of the site and/or referral process. But if the study selects certain subjects and rejects others, then the inclusionary and exclusionary criteria of the study are those of the site as well as those imposed by the study.

All studies have some criteria for admission into the sample population. In most cases these are based on simple membership in a particular group, for example, being a member of a jail population. Some studies have used specific inclusionary or exclusionary criteria that significantly change the sample characteristics and, therefore, the results. For example, sometimes certain persons are specifically excluded, such as all those awaiting trial in a jail population. Excluding persons based on legal status usually does separate subgroups of offenders, but there can be sample differences among studies even when the studies are from the same type of site and referral. However, inclusion or exclusion based on other characteristics (e.g., psychiatric history or type of psychiatric problems) does not always screen out persons with those characteristics.

For example, one problem inherent in jail studies is that there is an extremely high rate of alcohol or drug problems. One way of dealing with this problem is to exclude those with alcohol or drug problems. Glaser (1985) specifically excluded those referred to a prison psychiatric hospital who evidenced obvious alcohol or drug problems. Even so, Glaser found that 76% of the "clean" group admitted alcohol abuse,

and the majority were chronic alcoholics. This finding does indicate that most persons have multiple problems, and those with major psychotic illnesses, may also have substance abuse problems and personality disorders. The important methodological consideration is that, in comparing results among studies, the proportional representation of psychotic illnesses in the group can be increased through the exclusion of alcoholics.

This problem is clearly seen in Table 3.4 where Lamb and Grant (1982, 1983) and Glaser (1985) specifically excluded those with alcohol or drug problems, whereas the other studies did not. Obviously, in comparison to the other studies, Lamb and Grant's and Glaser's studies will have a proportionately inflated prevalence rate of psychosis. These studies stand contrast to Swank and Winer (1976) who studied a similiar site and had similiar methods and assessment procedures, but did not specifically exclude a diagnostic class of the county jail population.

Another important effect and artifact of exclusionary criteria, especially if the criteria are based on presenting diagnostic labels (e.g., alcoholism), is that it may exclude a particular diagnostic group. For example, alcohol or drug problems mask other psychiatric problems and exclusion based on alcoholism, as in Glaser (1985), may not allow the finding of other major mental illness. Other research (e.g., Alterman, Ayre & Williford, 1984; Overall, Brown, Williams et al., 1973; Powell, Read, Penick, Miller & Bingham, 1987; Reich, 1985; Whithers, Troughten, Cadoret & Widmer, 1984) indicates that a significant proportion of alcoholics may also have anxiety, depressive, and schizophrenic disorders. Recent research has revealed a triad disorder based on the co-occurence of an antisocial personality disorder, alcoholism, and depression (primary and secondary) (Cadoret, Troughten & Widmer, 1985; Reich, 1985; Weiss, Davis, Hedlund & Cho, 1983; Whitters, Cadoret & McCalley-Whitters, 1987). The masking of

psychiatric disorders has also been found in drug addicts (Khantzian & Treece, 1985). Therefore, if major mental illness is masked by the presenting drug or alcohol problem, and if these presenting problems lead to exclusion, then the identification of major mental illnesses cannot take place and will lead to an underestimation of the prevalence rates.

Different types of inclusionary and exclusionary criteria abound. For example. Baird (1981) excluded referrals with murder charges while Benezech, Bourgeois & Yesavage, (1980) included referred violent mental patients. Benezech et al., (1980) had a higher proportion of those with antisocial or psychopathic disorders which could be a result of specifically including a referral source where a high prevalence of this disorder would be present.

Different inclusionary or exclusionary criteria, which determine different samples or subgroups or different proportional representation of subgroups within a sample, make it difficult to compare results between studies. For example, in contrast to Swank and Winer (1976), Schuckitt et al. (1977) studied psychiatric illness in a local jail with prisoners charged and not arraigned, excluded men with previous felony convictions, but included only those with a present felony charge. Therefore, Schuckitt's et al. (1977) criteria specifically excluded (i.e., excluded those with misdemeanors) two-thirds of those included by Swank and Winer (1976). It is not known if the difference between results (cf. Table 3) is due to random variation of the true prevalence rate, sampling differences, or both.

Summary

The purpose of this section was to highlight some of the more obvious methodological problems concerning sampling characteristics involved in this research.

It is apparent that many more examples could be provided if a thorough review of every methodological characteristic of each study was done. However, the primary purpose of this section was to point out that there has been a lot of confusion in the past regarding the meaning of the differences in results from various studies. For example, Coid (1984), Guze (1976), Orr (1978), Prins (1980), and even Teplin (1983) lumped all studies together in their reviews. As such, the results were ambiguous. However, the ambiguity lessened as care was taken to differentiate and group studies based on similiarities of sampling characteristics. The simple grouping based on site, as was done in the previous chapter, allows a more meaningful analysis of results than that done in past reviews. As such, site and sampling characterisitcs are the prime determining factor in the final range of epidemiological results.

Diagnostic Methods and Criteria

Differences in diagnostic methods and criteria make it difficult to compare results among studies. Methodological flaws, imprecise measurement and variations in criteria raise questions regarding the accuracy of results. There are differences due to the use of different raters, different methods of measuring mental illness, and different diagnostic procedures and criteria. The following briefly reviews these concerns.

Raters

There have been a variety of raters used. These have included psychologists, physicians, psychiatrists, probation officers, lay interviewers, raters of collected information or of interviews, and academic researchers. Some studies have had a single rater for all of the sample, some have used a few raters, while other studies have used many raters each rating a different part of the sample, and some have had a multidisciplinary team rating all of the sample. Some studies have examined inter-rater

reliability. One could expect that the professional designation and experience of the rater may influence the identification of major mental illness.

For example, Beck et al. (1987) used psychiatric history, as reported to a probation officer who was doing a presentence assessment, as the basis of their diagnostic identification. Besides the obvious bias involved in reporting of psychiatric history in this situation, the identification of mental illness is expected to be different between these raters and other mental health professionals. Also, the purpose of the report would bias the reporter.

There is also a site x rater interaction. For example, the assessments done in the forensic clinic and forensic hospital sites have primarily been done by psychiatrists and, more recently, by psychologists or a multidisciplinary team. There may have been differences in results due to differences in training or professional views regarding the nature of mental illness. Other research on differences in professional groups in the diagnosing of mental illness has indicated that this issue has an impact on diagnostic rates. Also, within a site, a number of raters all of the same professional group may be used. For example, within forensic clinic sites, where the rater is a psychiatrist producing a report for court, there are usually a number of psychiatrists producing the reports and, hence, the data that are used as the basis of the epidemiological results come from a number of different raters. It is rare for a study to report inter-rater reliabilities.

There is also a method x rater interaction. The most obvious relation is that file reviews are done by researchers and clinical interviews are more likely to be done by professional clinicians (e.g., psychologists or psychiatrists). However, more recently clinical interviews based on standardized formats have been done by researchers. If the file research is simply the reporting of the results from a clinical interview that is

recorded on the file, then there should not be a difference due to the different raters (e.g., researcher vs. clinician). However, if there is ambiguity in the diagnostic information on file and a judgement is involved, there may be differences in decisions based on differences in training and profession. As a minimum, it seems prudent to report the qualifications of the rater employed and, if multiple raters are used, the interrater reliability.

Methods and Measures

Methods and measures employed in determining prevalence rates of mental illness have included unstructured psychiatric examinations, standardized psychiatric interviews, personal histories, file reviews, clinical interviews, and the use of tests and rating scales. Most studies have been conducted at an unspecified time after admission, very few studies have indicated a consistent specified period of time within which the assessment was done (e.g., Glaser, 1985; Guy, 1985). On the whole, the use and relation between multiple measures and methods have not been described.

A major difficulty has been with the use of psychiatric history as a method of determining prevalence rates. Many studies (e.g., Adams, 1983) use former psychiatric hospitalization as a method for determining the presence and rates of mentally illness. But, as Pepper and Ryglewicz (1983) pointed out, there are many mentally ill who have never been hospitalized, especially those persons in the 18 -35 age range. These are the young, chronic, mentally-ill patients who are uninstitutionalized and evidence a large amount of alcohol and drug abuse, as well as violence and law violations. The 18 - 35 age range is the high risk ages for criminal activities and constitutes most of the offender populations. Therefore, as the institutional basis for treatment has decreased and community treatment has increased, evidence for the younger adult males being mentally ill, as defined by institutional treatment, cannot be found. Thus, for a major

proportion of offenders, studies using psychiatric history as the method of identification of major mental illness will significantly underestimate the proportion of those who are mentally ill.

Another problem with using psychiatric history as the basis of identifing those with major mental illness is that it says nothing of the current mental health status of the subjects, which may be more pertinent to the reasons for entering the criminal justice system. These problems are inherent in using file reviews as a methodology. File reviews are usually based on evidence for psychiatric hospitalization, specifically state mental institutional history. Also this method can focus on past mental status versus present state status. For example, as was found in Kal's (1977) study, if prevalence rates are taken from a review of the inmate's medical file data, meaning that the person had to be referred to the mental health clinic, then this would have seriously underestimated the true prevalence rate. File reviews will miss any who have not been hospitalized nor referred. As well, many studies used file reviews that were also unclear about what diagnostic measures and criteria were used.

It is also important to consider the time frame over which a diagnosis is made. The problem of whether a study focused on the past or the present mental health status of the offender was identified in Jones (1976), where it was found that, of those offenders given a psychiatric diagnosis, 81% were given their first diagnosis after incarceration. It was not known whether or not the mental disorder was present before incarceration but not identified, nor whether the mental disorder resulted from the stress of jail. In any case, the jail acted as the mental health clinic in diagnosing mental illness for a large proportion of jail inmates.

Another problem is found in the interaction of the purpose of referral with the method used in determining prevalence rates. For example, in forensic clinic studies the

purpose of the referral is to produce a psychiatric report to court, usually to determine insanity or competency. This psychiatric assessment for court becomes the diagnostic method. The type of diagnostic information produced from this method may very well be different from the diagnostic information produced through an assessment used for research purposes, or through a standardized diagnostic procedure or measure.

The purpose of this section was to simply point out that there have been a variety of methods and measures used to identify the numbers of mentally ill in different sites in the criminal justice system. Differences in results among sites may be an artifact of these differences.

Diagnostic Criteria and Procedures

Whatever the sample studied, diagnostic criteria employed will obviously affect obtained prevalence rates. Diagnostic criteria and systems used in these studies have included DSM-II, DSM-III, ICD of unspecified dates, Feighner criteria, history of psychiatric hospitalization and treatment, and unspecified diagnostic impressions. The variety alone makes historical comparisons difficult.

Prevalence rates have been based on single versus multiple diagnoses and primary versus secondary diagnoses. Obviously, multiple diagnoses will lead to higher prevalence rates of specific disorders than will single diagnoses that are based on a primary diagnosis. However, the overall number of those who have a mental disorder should be the same, but the proportional representation of specific disorders will vary depending on whether single or multiple diagnoses are used.

Differences in diagnostic criteria, especially the specificity of the diagnostic categories, leads to differences in results. Depending on the diagnostic procedure and criteria the diagnostic groups may not be homogeneous. This was seen in Glaser's

(1985) study which specifically tried to exclude alcoholics, but found a large number of the severely mentally ill (e.g., psychotic) to also have severe alcohol problems.

The procedure by which diagnoses are assigned may significantly alter the results, especially if prevalence rates are based on primary diagnosis. A good example of these problems in diagnostic method is seen in Schuckit et al. (1977). They studied 199 male arrestees with first time felony charges. Of this group, only 0.1% were diagnosed as having an affective disorder. This rate was, by far, the lowest prevalence rate reported in that site (cf. Table 3). However, their diagnostic method resulted in this low prevalence rate. They did not diagnose an affective disorder if the depression was concurrent with alcohol or drug abuse. Also, their procedure only counted the earliest appearing disorder. Thus, if depression or alcohol abuse occurred after an antisocial personality disorder (APD) appeared, then the other two disorders were not diagnosed. For example, if an APD appeared in later adolescence before an alcohol disorder or evidence of a severe affective disorder, then the later appearing disorders were not reported. In fact, a closer analysis of their results indicates that 26% of the APD group had a history of psychiatric hospitalization, 27% indicated the occurence of 2+ weeks of depression, and 23% had attempted suicide. It is clear that some of the APD diagnostic group were also suffering from severe affective disorder symptoms. There may have been a subgroup of the APD group who also met the criteria for an affective disorder, as has been found elsewhere in other psychiatric populations (discussed above). Schuckit et al. (1977) probably seriously underestimated the prevalence of affective disorders in their sample.

Analysis of the studies (e.g., Petrich 1976, Schuckit et al., 1977; Glaser 1985) indicates that some individuals in the samples had multiple disorders. Some studies reported multiple diagnoses which provides substantial evidence for subgroups of

offenders with specific multiple problems. For example, Yarvis's (1972) study of 25 males charged with felonies court and referred for assessment clearly indicated that those with major psychoses (e.g., schizophrenia) also had alcohol or drug disorders and APD. It is clear that multiple diagnoses give a more accurate portrayal of the prevalence rates of major mental illness.

In conclusion, not only do changes in diagnostic classification and nosology lead to changes in perceived incident rates, as we would expect, but differences in the procedures may also lead to substantial differences in results. Recent studies all used DSM III or DSM III-R, but, even so, there were procedural vaguaries that may have created differences in results.

Summary

The above brief review indicates that methodological differences in diagnosis and diagnostic criteria are expected to effect differences in reported prevalence rates of mental illness. As such, the reporting of raters, the use of standardized instruments or interviews, having clear diagnostic criteria, and reporting full diagnostic information will help to reduce confusion in comparing results among studies, and give a more accurate measure of the prevalence of mental illness in the criminal justice system.

Identification of the Mentally ill

The identification of the mentally ill is determined by the sample characteristics, the sampling procedure, and the diagnostic method and criteria. The prevalence rate is more influenced by sample characteristics and procedures, while the accuracy or completeness of identification is more influenced by diagnostic methods or criteria. Does the sampled and identified prevalence rate reflect the population prevalence rate? This problem is often overlooked.

This is a problem of prediction theory. Prediction theory examines the accuracy of the prediction with the outcome. Prediction is a binary choice: predicting the outcome will occur (positive) or will not occur (negative). In this case, it is predicting mental illness is present (positive) or not present (negative). Outcomes are either positive (mental illness present) or negative (mental illness not present). In comparing the accuracy of prediction to outcome, we act as if we know the true outcomes of all the predictions. That is, we know the true outcome status (positive or negative) of all the people we have made predictions for. This 2 x 2 table defines four outcomes: true positive - correctly predicting mental illness present; false positive - incorrectly predicting mental illness present (i.e., predicting mental illness was present when it was not); true negative - correctly predicting mental illness was not present; and false negative - incorrectly predicting mental illness was not present (i.e., predicting mental illness was not present when it was present).

In looking at the problem of identifying the mentally ill in these studies in terms of prediction theory, we would examine: (1) the accuracy of the referral (prediction) with the diagnostic assessment (outcome), or (2) the accuracy of the diagnostic assessment (prediction) with a "true" measure of mental illness or the "true" mental illness status (outcome). This suggests that the identification of the mentally ill can be conceptually described as two levels of prediction theory analysis. The first involves sampling effects: whether the referral identifies the mentally ill. The second involves diagnostic effects: whether the diagnostic assessment identifies the mentally ill.

In most studies, the prevalence of mental illness in a jail is taken from those referred to the jail psychiatric clinic. However, it is very important to note that a high prevalence rate in those referred (e.g., to a prison clinic or psychiatric hospital) does not mean that all, or even most, of the mentally-ill offenders in the site's general

population (i.e., in the general prison population) have been identified. In prediction terms, identifying the mentally-ill versus non-mentally-ill offender, or, in some more rigorous cases, psychotic versus non psychotic offender, is done through the referral (i.e., the prediction) and the assessment (i.e., the outcome). The assessment after the referral simply differentiates the true positives from the false positives: the mentally-ill from the non-mentally-ill offenders in the referred sample. This assessment does not identify the false negatives: those mentally-ill offenders in the source population (e.g., jail) who were not referred to the site sample (e.g., jail mental health clinic). Therefore, the prevalence or extent of mental illness should be calculated on the proportion of true positives and false negatives in the general population rather than on the proportion of true positives to the total number of persons.

Obviously, there should be some correspondence between referral and prevalence of mental illness, but this is dependent upon a number of factors. For example, the obviousness (e.g., the blatancy or bizarreness) of the mental illness symptoms, the management problems of the mentally ill that would bring them to the attention of the staff, the limit of services available, the ability of staff to identify mental illness, and the staff's attributions of causes of, and tolerance, to bizarre and nuisance behaviour, are just some of the referral (prediction) factors that determine the identified prevalence rate. As mentioned before, this problem is highlighted in Kal's (1977) report on the prevalence rates in a random study of a jail population. He stated that the number of inmates referred by jail authorities for psychiatric assessment was smaller than the number of mentally ill expected from the prevalence rate determined from the random study. In prediction terms, the number of predicted positives (true positives plus false positives) was less than the number of outcome positives (true positives plus false negatives). More importantly, Kal (1977) stated that the number referred "did not even reach the number of serioulsy psychotic inmates that could be

expected on the basis of that sample" (p. 463). Whereas, given that there will be false positives, the total number of positives (i.e., those referred) should be larger than that expected from the random study. One conclusion from this study is that those mentally-ill offenders whose behaviour is tractable and conformable do not get identified.

In summary, of the studies reviewed in Chapter III, referred samples (i.e., forensic clinics and jail/prison mental health clinics) determined the number of true and false positives. Jail and prison studies were more likely to determine the number of true and false positives and negatives.

Conclusion

In summary, the above section briefly mentions some of the more obvious concerns with respect to the differences in results due to differences in diagnosticians and diagnostic methods and criteria. These could simply be seen as research problems. However, these issues highlight two broader issues pertinent to this study. The first is found in Wiens and Matarazzo (1983) who stated:

> Perhaps one area in which clinical psychologists and psychiatrists have most disgraced themselves, because of diagnostic ambiguity and unreliability in the past, is in the courts and in legal testimony. In fact, it might be asserted that the reliability and validity of psychological and psychiatric diagnoses have been so poor in the past that they have been of little value in legal proceedings. (p. 326)

If we are going to talk about the numbers of mentally ill in jail and the consequent issues to social policy, then we have to be able to appear to the criminal justice and mental health systems that we can agree upon who is mentally ill. Methodological problems create disagreements.

Second, the conclusions we can offer from this research are only as good as the data we base it on. If there are fundamental problems in diagnosing mental illness and,

therefore, problems in identifying criminals who are mentally-ill, then how can we compare mentally-ill to non-mentally-ill criminals on dependent variables that pertain to the criminalization questions? We cannot answer criminalization questions without the accurate identification of mental illness. This is especially a problem in trying to piece together studies in longitudinal research. If the diagostic method and criteria change over time, then we cannot compare studies over time. Then we cannot determine if there has been changes in the criminalization of the mentally ill due to changes in social policy or programmes.

The next chapter outlines the purpose and methodology or the present study.

CHAPTER V

PRESENT STUDY

> There has been a great deal of speculation the mentally-ill person who would previously have been treated within mental hospitals are now being processed through the criminal justice system and constitute an ever-increasing proportion of the jail population.(Teplin, 1983, p. 54)
>
> The problem of disposition, handling and treatment of individuals who have violated the criminal code and exhibited varing degrees of mental disturbance has been a long-standing concern of law enforcement, correctional and mental health officials. In institutional settings, when a mentally disturbed offender also displays an inordinate amount of disruptive behavior, including physical violence and serious repeated infractions of admistrative rules, the compounded result creates management problems of a major order. (Uhlig, 1976, p. 50)

The purpose of the present study

As noted above, professionals are concerned that the mentally ill are a growing proportion of correctional populations. As Halleck (1980) noted, the number of mentally-ill inmates has practical consequences for the criminal justice system (e.g., they may create more difficult work for correctional personnel). The present research examines this premise at the Vancouver Pretrial Services Center (VPSC), a remand facility for men who are accused of criminal offences and are awaiting trial or who are awaiting sentencing. This research focused on two main issues: (1) how many mentally-ill inmates were in this correctional facility, and (2) what were the consequences to them -- were mentally ill inmates criminalized more than other inmates?

Corrections staff and mental health professionals believe that a large number of inmates have "mental problems". This is despite the fact that the more obviously mentally-ill offenders have already been filtered out of the corrections system (i.e., are not remanded to the pre-trial jail) through local jail psychiatric assessment (e.g.,

hospitalization or committal) and through 30 day remands for psychiatric assessment ordered by the court at the arraignment stage. Second, it is also believed that a significantly higher proportion of mentally-ill inmates were being held for relatively less serious offenses (e.g., fraud, mischief), than we find in the rest of the remand population. Lastly, disturbed and disruptive individuals -- the mentally ill -- who are arrested (Symonds, 1977) are likely to be disturbed and disruptive inmates. It is believed that mentally-ill inmates are more disruptive and violent, violate more rules, engage in more infractions, and therefore create more management problems (Toch, 1982; Uhlig, 1976) than other inmates. Thus, they consume a large amount of correctional system resources: time and effort of corrections staff who have not been trained to interact with this special class of inmates.

Hypotheses

The present research is intended to answer the following questions:

1. What is the prevalence and type of mental disorder in remanded inmates: what proportion of the remand population suffer from significant mental illness? The hypothesis was that there is a greater rate of mental illness in the remand population than in the general population.

2. Do mentally-ill inmates differ from the rest of the remand population in terms of criminal history? For example, have they had more previous contacts with the criminal justice system? Have they spent proportionally more time on remand in the past? Have they committed less serious offences? The hypotheses were: mentally-ill inmates have had more contacts with the criminal justice system, have spent more time on remand, and for less serious charges - especially in property, fraud, nuisance and minor theft charges.

3. Do the reasons for entry into the study, that is the offences they were charged with, differ between groups? Are the mentally ill in jail for less serious offences than the other inmates? The hypothesis was that the mentally ill entered on less serious charges than the non-mentally ill.

4. Do mentally-ill inmates serve more remand time than non-mentally-ill inmates? The hypothesis was that the mentally-ill inmates serve more time on remand than their non-mentally-ill counterparts.

5. Are the criminal outcomes that the mentally ill recieve different when compared to the outcomes that the non-mentally ill receive? The hypothesis was that the mentally ill receive more severe criminal outcomes than the non-mentally ill.

6. Do the mentally-ill inmates use up more staff resources (e.g., medical and psychological resources) than their non-mentally-ill counterparts? The hypothesis was that the mentally-ill inmates use more medical and psychological services than the non-mentally-ill inmates.

7. Do mentally-ill inmates cause more difficulties and disturbances than other inmates? For example, do they serve more segregation time for disciplinary infractions? The hypothesis was that the mentally-ill inmates cause more disciplinary problems than do non-mentally-ill inmates.

Methodological problems in past studies

The previous chapter reviewed a number of methodological problems in epidemiological studies on mental illness in different offender populations. Specifically related to jail populations, Teplin (1983) has identified four problems. These are:

> (a) studies have, for the most part, focused on characterizing those persons referred for treatment rather than studying the prevalence of mental disorder among the jail population as a whole; (b) sample sizes have been, without exception, insufficient to detect a statistically rare event such as serious mental illness; (c) the assessment process has been plagued by imprecise and/or insufficient instrumentation; and (d) studies have not used baseline data for comparison. Clearly, what is needed is an investigation of the prevalence of mental disorder in jails that is designed in such a way so as to avoid these methodological problems. (Teplin, 1983, p. 64)

Another methodological problem in epidemiological research in jail populations is that studies on jail populations usually have been on inmates who have been in the jail for awhile. It is not known if the presence of mental illness is due to the stressors of the jail experience (Leuchter, 1981; Morgan, 1981; Teplin, 1984), if the jail experience exacerbates already underlying mental illness (Prins, 1980), or if the mental illness was present before jail admission and, therefore, independent of the jail experience.

There have been few studies that have reviewed the criminalization issues in jail populations (cf. Teplin, 1983) and the data that are available are of poor methodological quality (Teplin, 1984). Specifically, the previous research has three major limitations: "(a) the type of data used, (b) the type of samples, and (c) the point in the process at which the samples are drawn." (Teplin, 1984, p. 795)

Also, there are no studies that have directly assessed the different consequences of remand time and intervention, and the relation of criminal charges to mentally-ill versus non-mentally-ill remanded inmates. The major methodological problems are the same as those outlined for epidemiological studies. Because the greatest difficulty has been in reliable and valid identification of mental illness in the whole jail population, once that is accomplished then mentally-ill and non-mentally-ill inmates can be compared on a number of dependent variables that measure the criminalization hypothesis.

The present study

This study examined the epidemiological and criminalization questions in a remanded correctional population. This study used two different sampling strategies to create two different studies (i.e., two different samples) to examine these questions. Study 1 examined consecutive admissions to VPSC. Study 2 examined a random sample of the VSPC population.

In regards to the methodological problems of epidemiological studies, this study proposed to solve the first three problems outlined by Teplin (1983). Since Study 1 used consecutive admissions and Study 2 used a random sample, the assessment was not dependent on a referral from non-mental health professionals, and prevalence rates were determined by directly sampling the population. Second, the sample size was large enough to adequately assess prevalence rates. Teplin suggested that 200 is a minimum sample size to study the prevalence of rare events in a population (c.f., Lazerwitz, 1968). In fact, it was not expected that the prevalence of major mental illness in this population would be a rare event. Third, a well-researched, reliable and valid, structured interview schedule -- the Diagnostic Interview Schedule (DIS) -- that provides precise and sufficient diagnostic information, was used to determine a prisoner's mental health status.

The fourth problem could only be answered by comparing prevalance of major mental illness data of the remand population, as measured by the DIS, to prevalance data for Vancouver/Lower Mainland. The epidemiological research information being collected by the National Institute of Mental Health (NIMH) (e.g., Reiger, Meyers, Krammer, et al., 1984) could provide some comparative statistics, but Canadian data have been lacking until recently (Bland, Orn & Newman, 1988).

The problem of the jail experience confounding the presence of mental illness was resolved by two methods. First, the initial assessment was done in Study 1 when the prisoner entered into the VPSC. However, the stressors of arrest and the initial jail experience could have increased the occurence of presenting symptoms similar to major mental illness. Second, (and this answers the preceeding problem) the DIS yields a current, a six month past, and a life-time diagnosis; thus, it was possible to obtain information about the presence of mental illness that was independent of the initial jail experience. Data focused on diagnostic information that provided lifetime prevalence rates of mental illness.

The criminalization of the mentally ill involves three issues to be examined: (1) the prevalence of mental illness in a jail population, (2) the use of the criminal justice system to control socially unacceptable behaviour, and (3) the differences in criminal justice system consequences between mentally-ill inmates and non-mentally-ill inmates. The first issue was examined in the epidemiological study outlined above. The second issue was examined by comparing the criminal histories and charges for mentally-ill versus non-mentally-ill inmates. The third issue was examined by comparing the criminal justice system consequences (e.g., remand and sentence time) for mentally-ill versus non-mentally-ill inmates.

CHAPTER VI

METHOD

General methods

Study overview

As mentioned in the previous chapter, Study 1 and Study 2 were designed to sample different groups of a remand jail population. They were differentiated, colloquially, as "through the door" and "standing population", respectively. In fact, these descriptors matched the differences in the sampling methodologies of the two studies. Study 1 sampled 313 consecutive admissions to VPSC. Study 2 was a random sample (n = 97) of those staying in the jail.

The descriptive, diagnostic, and outcome measures used, and, thus, the types of information provided, were the same for both studies. However, the diagnostic procedure used in identifying mental illness was different between studies. In Study 1, a full diagnostic interview (i.e., the DIS) was used on a selected subgroup of the sample. It was not possible to interview all of the subjects so those identified on entry who had a high probability of having a mental illness were attempted to be interviewed. In Study 2, all subjects were interviewed with the DIS.

The specific methodologies for each study are fully described in separate sections below. Common methodological information is reviewed in this section.

Setting

The Vancouver Pretrial Services Center (VPSC) is a jail operated by the Corrections Branch, Ministry of the Attorney General of British Columbia. It is

responsible for the secure confinement of prisoners remanded for trial or awaiting sentencing who come from the Vancouver and Lower Mainland area of B.C. As can be seen from Figure 2.2 these prisoners had been arrested by the police, perhaps interned in a city or municipal jail, arraigned before a judge and committed for trial, and had not been allowed, at that time, to await trial in the community (e.g., on bail or on own recognizance).

Records

Records of information on prisoners was the property of the Corrections Branch, Ministry of Attorney General. Records are kept for every prisoner entering the Remand Center and include an institutional file (containing progress and incident information) and a medical file. Provincial correctional information is also on file and includes information on each prisoner regarding past criminal charges and judicial results, as well as sentencing and incarceration information.

General Procedure

The general procedure for data collection for both studies was as follows. Subjects were interviewed and demographic and diagnostic information was collected.

Each subject's date of entry on their current remand into VPSC became the date of the start of the Study period. All criminal activity before that date was coded as part of their criminal history. The end of the Study period was determined by the end of the subject's current remand. In order to systematically collect information on outcomes, each subject was followed- up approximately six to twelve months after their entry to VPSC. Criminal history and criminal outcome information on all subjects was collected as of October 22, 1986. This date became the cut-off date for the Study period. Therefore, each subject's Study period (and their remand length) was the number of

days between their current remand entry date and their date of release on remand (e.g., released at court, bailed, sentenced to jail) or until October 22, 1986, whichever came first.

Medical and institutional information was collected only for the Study period. Collection of data from medical and institutional records involved tracking the subject's records to their Correctional Centre site although many records were stored at the VPSC. Those prisoners who were incarcerated in the other Provincial Correctional Centres, were located and their records were coded at their site. This involved searching through medical and institutional record files stored at the Lower Mainland Regional Correctional Centre, the Allouette River Correctional Centre, and the Maple Ridge Sentence Management Unit.

As prisoners and records had transferred from site to site, and since prisoners may have multiple files due to multiple entries, three separate searches through institutional records over a one and one-half year period was performed to reduce "missing" data due to records not being locatable.

Descriptive measures

Demographic information:

Demographic information was collected on each subject in Study 1. This included information regarding demographic status (e.g., age, education, employment), current status (e.g., job history, location), marital history, psychiatric history, family psychiatric history, parental history, and current and past psychological problems (e.g., suicide information). This information was grouped into three areas: demographic characteristics, psychiatric history, and current functioning.

Entry psychopathology:

The Brief Psychiatric Rating Scale (BPRS) (Overall & Gorham, 1962) consists of 18 items, defining 18 symptom constructs of psychopathology, that are rated on a 7 point severity scale, ranging from "not present" to "extremely severe". Overall and Hollister (1982) stated that "as documented in a recent review... it is one of the most widely used instruments in clinical research for characterizing the nature and severity of manifest psychopathology" (p. 535). It has been primarily used as a dependent measure in measuring treatment effectiveness, particularly in clinical psychopharmacology research (Overall & Hollister, 1982), but it can be used to classify patients by matching their profiles to one of eight patterns that "represent different phenomenological types in the general adult psychiatric population" (Overall & Hollister, 1982, p. 535). It was used in the present study as a screening instrument to categorize and provide a rating for each subject's presentation of psychopathology on entry.

Criminal history and criminality:

Criminal history information was coded from each subject's criminal history accessed by their Correctional Service number and located in data stored in the B.C. Corrections Case History data banks. Criminal information that was extracted essentially focused on three types: the first tried to account for the number and type of entries to the criminal justice system, and the amount of time spent in jail; the second delineated the frequency of different types of criminal charges; and the third described criminal information pertaining to the study period, such as the outcomes of charges that resulted in the remand.

As noted above, the remand entry into VPSC and the amount of time spent on this remand was labelled the "Study" period. Criminal history was thus identified as those criminal events taking place before the Study period and labelled the "Before" period.

There were 94 different criminal offences that subjects had been charged with. The frequency of criminal charges is reported for the Before perions -- as previous criminal history -- and the Study period -- as current criminality. In order to simplify these data, and to handle the problem that many offences occurred at extremely low frequencies, criminal offences were collapsed into categories. Two different grouping methods were used: one to group according to type of offence (e.g., assault, theft, etc.), and one to group according to severity of offence. The first method used an adaptation of the categories used by Golding, Eaves, and Kowaz (1989) in classifying types of offences committed by NGRI patients. This grouped offences into 14 categories. The second method used the classification system of the Correctional Service of Canada which groups offences into four severity groupings: major, severe, moderate, and minor.

Diagnostic measure

The Diagnostic Interview Schedule:

The National Institute of Mental Health Diagnostic Interview Schedule (DIS) (Robins, Helzer, Croughan, et al., 1981) is a structured interview, to be used by professionals and lay persons alike, designed to make diagnoses in each of three systems: (1) DSM-III (American Psychiatric Association, 1980); (2) the Feighner criteria (Feighner, Robins, Guze, et al., 1972); and (3) the Research Diagnostic Criteria (RDC) (Robins, Helzer, Croughan, & Ratcliff, 1981). It has been used by the NIMH multi-site Epidemiologic Catchment Area (ECA) programme to determine the prevalence of mental illness in five United States cities (Regier, Meyers, Krammer, et al., 1984). It provides a present status diagnosis (Robins et al., 1981), a six-month past diagnosis (Myers, Weissman, Tischler, et al., 1984), and a life-time diagnosis (Robins, Helzer, Weissman, et al., 1984). The DIS has become the standard instrument in identifying mental illness and determining prevalence rates of mental illness. It has

been used in recent jail studies (Bland et al., 1990; Daniel et al., 1988; Teplin, 1988, 1989) to determine the prevalence of mental illness.

The DIS takes approximately one to three hours to complete. It involves a series of questions that survey all the symptoms on DSM-III Axis I disorders. It also surveys symptoms of the antisocial personality disorder. In addition, as part of the Axis I substance use disorders, it has a complete survey of alcohol and drug use and the pathological symptoms of that use. At the end of the schedule, four questions pertaining to interview behaviour and presentation are asked. These can be used to identify blatant mental illness when the subject is so disordered (e.g., so depressed that he hardly answers) that he cannot complete the interview. Importantly, for this population, it differentiates the severity of the symptom (e.g., severe enough to see a doctor) and the possible cause (e.g., symptom due to physical illness and/or the use of drugs or alcohol) of the symptom. This allows the symptom to be identified as "positive", that is, severe and due to a psychological/psychiatric cause.

Outcome measures

The dependent variables are designed to measure three types of costs of imprisonment to the jail or the prisoner. These were measured by: (1) the amount of time spent in jail, (2) the amount of resource usage, such as the amount of medical and mental health staff time use, and (3) examining consequences to the jail or prisoner of the prisoner's disruptive or deviant behaviour. Data was obtained for these three groups of measures from three different sources of information.

Types of measures:

The first type of measure focused on the consequences of criminal behaviour as measured by the amount of incarceration time on remand spent in the VPSC during the

Study period, the outcomes of the current charges, and the incarceration time spent under sentence on those Study period charges. These data were gathered from their criminal history information up to the cut-off date of October 22, 1986.

The second type of measure focused on costs to the mental health and health services as measured by visits to medical, psychological, or other professional staff. Specifically, the number of visits to the psychologist, the medical doctor, the dentist, the psychiatrist, and the number of phoned orders by the nurse for medication orders were examined. These were then calculated on a per day basis.

The third type of measure tried to capture the impact of the prisoner's disruptive or deviant institutional behavior. Adams (1983) defined three types of incidents formally measuring this: escape history, assaultive infractions, and prison punishments. In the present study escape history data were gathered from the subjects' criminal histories. Assaultive infractions encompassed evidence of "any injury or threat of injury to a person by any means" (Adams, 1983, p. 366). Formal institutional charges of assault or threatening prisoners or staff were gathered from the institutional file. Rule violations were measured by any charges of violations against the Correctional Centre Rules and Regulations (CCR&R) and included: misconduct charges, findings of guilt, and type of prison punishments (e.g., segregation time) .[1]

Specifically, the number and type of formal CCR&R charges laid, the number and type of convictions, the type and amount of punishment given (i.e., segregation days) and the number of "lockdowns" and "lockdown" days were examined. These were then calculated on a per day basis.

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[1] Correctional Centre Rules and Regulations, Corrections Branch, Ministry of Attorney General, Province of British Columbia, (Made pursuant to Prisons and Reformatories Act [Canada] and the Corrections Act) 1978.

Sources of data information:

The first type of measure used information from the subjects' B.C. Corrections Case History, as outlined above, which provided information regarding the amount of time spent in jail and criminal outcomes.

The second type of measure used information from coding the prisoners' medical files. These provided data on the amount of medical and mental health staff time used by the prisoners.

The third type of measure used the correctional file information. This included information regarding formal institutional charges identified as charges against the Correctional Centre Rules and Regulations, and outcomes of these charges. Also, informal but clearly identifiable disciplinary actions were recorded. Specifically, these were the number of times a prisoner was locked into his cell as a disciplinary consequence of problems (i.e., "lockdowns") and the number of days he was locked in his cell (i.e., "lockdown days").

General Diagnostic method

Information from the DIS was analyzed to see if the subjects symptomatology met the criteria for DSM-III disorders. Subjects were classified according to whether they did or did not have a major mental illness. Major mental illness was defined by having a psychotic disorder (i.e., schizophrenia, paranoid disorder, or schizoaffective disorder) or an affective disorder (i.e., bipolar disorder or major depression, but not cyclothymia or dysphoria). Comparisons were made between those inmates with a major mental illness (MMI group) and inmates who did not have a major mental illness (NOT MMI group). Teplin and her associates (1986, 1988, 1989) have used this dichotomy, and its definition, in their recent research using the DIS in prison populations.

Subjects were given a specific DSM-III primary diagnosis. In addition, where applicable, they were also given multiple diagnoses. Thus, multiple diagnoses could include a major mental illness or other Axis I diagnoses, the presence or absence of an antisocial personality disorder, and additional Axis I substance abuse and dependency disorders for alcohol or drugs.

Statistical Method

Statistical analyses were done using the Biomedical Data Processing (BMDP) statistical programmes (Dixon, Brown, Engelman, et al., 1981). Missing data were not estimated. Some types of data for specific subjects were not able to be located. Analyses were done using the available data. Descriptive statistics were computed for each variable measured.

Descriptive demographic and epidemiological data were based on frequency counts. Descriptive comparison data were based on comparisons of those who were mentally-ill (MMI group) with those who were not (NOT MMI group) using descriptive demographic data of interest. Outcome data were based on comparisons of the MMI group to the NOT MMI group with the selected outcome variables.

Two-tailed t-tests were calculated. In the tables the uncorrected probability values (p's) are given. Significance levels are then determined by using the cut-off of $p = .05$, and these were then corrected for using multiple t-tests by using a Bonferroni correction (cf. Kirk, 1968) on a family-wise basis. Hotelling's t-tests were calculated on groups of variables categorized by families.

Study 1

Sample

This sample consisted of 313 consecutive admissions to the VPSC between October, 1985 and February, 1986. During that period, there were 367 admissions of remanded prisoners. Of these, 26 were not seen (came in late, early, or were otherwise missed), 10 did not speak English, and 14 refused to be interviewed. Thus, 317 of 327 consented to be interviewed resulting in a 96% consent rate. However, 4 were initially included but examination of their criminal record indicated that they were remanded and subsequently given bail on the same day and did not enter into VPSC, therefore leaving 313 subjects. All were males. The mean age was 28.3 years, the median age was 26 years, and the modal age was 22 years. Approximately 20% of the sample was 18 to 20 years old, while 2.6% of the sample were older than 50 years of age.

Procedure

On admission to the VPSC from court, the prisoner is "booked" by corrections staff. Nursing staff interviews each admission and takes a medical history which identifies possible medical, dental, or mental health services that are required for each prisoner. Psychology staff attempts to see every admission for a brief screening interview. Prisoners identified by the admitting nurse or by the psychology staff as needing psychiatric or psychological assessment or treatment are seen, as per usual, by the regular psychologist or psychiatrist. Those not seen by the psychological staff on entry are attempted to be seen by the psychology staff at a later time.

On entry and during the booking and interview time, I contacted each admission and asked to interview them. Prisoners were told that the demographic interview was voluntary and the information confidential and asked to sign a consent form. Nearly all

of those consenting to interviews gave only verbal, but not, written consent. I collected demographic data and filled out the Brief Psychiatric Rating Scale (BPRS) (Overall & Gorham, 1962) for each admission.

For those prisoners who were suspected to be mentally-ill, either currently or previously, an attempt was made to interview them using the Diagnostic Interview Schedule - Version III (National Institute of Mental Health, 1981) at a later time (e.g., usually the next day). The decision to follow-up with a DIS interview was made after the initial entry interview. As mentioned, this was made through searching for evidence of mental illness found in their demographic information (e.g., psychiatric history), their current functioning (e.g., suicidal), or seen in their presenting psychopathology (i.e., as captured in the ratings on the BPRS).

The DIS took approximately one to three hours to complete. The purpose of the interview was explained and prisoners read and signed a consent form for this follow-up interview[2].

Institutional and medical records for the 313 admissions were examined. As noted above, although record stores were thoroughly checked over one and one-half years, some records were not located and deemed "missing". Approximately 7.7% of the medical file data were not located and 4.8% of the institutional file (i.e., progress log) data were not located.

Diagnostic procedure

In Study 1, the interview using the Diagnostic Interview Schedule was the primary basis for identifying mental illness for the subjects. However, in a few cases, a

[2] Some refused to sign the consent form but consented to do the interview.

DIS interview was attempted, but the individual was so disordered that it could not be completed. Also, in a very few cases, the person was either in and out of VPSC very quickly or refused the interview. In these cases, where it was clearly established by mental health professionals that the person was mentally-ill (either schizophrenic, depressed, or manic-depressed), the person was diagnosed as such. However, these persons were not given multiple diagnoses and were only give an Axis I diagnosis.

As mentioned above, on entry to VPSC, subjects were interviewed and rated for psychopathology. Those who were identified as being possibly mentally-ill were followed and an attempt was made to interview them at a later date using the DIS. The function of this decision was to cast a wide enough net so to decrease the number of false negatives while allowing the proportion of false positives to increase.

The question this raises is did some subjects suffering from major mental illness slip through the net? Can those not interviewed be considered to be part of the group "not suffering from major mental illness"? Specifically, there were groups defined by: (1) not having a DIS (NO DIS), (2) having a DIS but not showing signs of major mental illness (DIS NO MMI), and (3) having a DIS and showing signs of major mental illness (MMI). Evidence for considering the NO DIS group to be not suffering from major mental illness would come from finding that the NO DIS group significantly differed from the MMI group, but not from the DIS NO MMI group. Comparisons are shown in Tables 6.01 and 6.02.

Comparison of the groups indicated that there was no evidence to suggest that the groups differed on age. In terms of presenting psychopathology, as indicated by the number of suicidal thoughts, the NO DIS group had significantly less suicidal thoughts than the MMI group, but were not significantly different from the DIS NO MMI group. The NO DIS group also had significantly less suicide attempts than the MMI group, but

were not different from the DIS NO MMI group. On the BPRS, again the NO DIS group were found to score significantly lower on their total score of pathological symptoms than the MMI group. However, again the NO DIS group was not different from the DIS NO MMI group on the BPRS total score.

Table 6.01
Comparison of Groups on entry psychopathology

Variable	NO DIS		DIS NO MMI		MMI	
	mean	s.d.	mean	s.d.	mean	s.d.
Age	28.5	9.30	27.6	8.42	28.4	8.11
Suicidal thoughts	0.9	2.25	1.5	3.01	4.1	5.16
Suicide attempts	0.3	1.67	0.3	0.93	1.9	3.03
BPRS	23.8	5.56	25.1	5.15	30.8	8.08

Table 6.02
Comparison of Groups on entry psychopathology

Variable	NO DIS/ DIS NO MMI		NO DIS/ MMI		DIS NO MMI/ MMI	
	t	p	t	p	t	p
Age	0.48	0.63	0.05	0.96	0.44	0.66
Suicidal thoughts	1.13	0.26	7.00	0.00	5.00	0.00
Suicide attempts	0.12	0.90	5.32	0.00	4.04	0.00
BPRS	1.14	0.26	8.05	0.00	6.76	0.00

These results strongly suggest that the NO DIS group evidenced significantly fewer symptoms of psychopathology on entry. Analysis of the means indicate that there was an increase of psychopathological symptoms from the NO DIS group to the DIS NO MMI group to the MMI group. Therefore, it is reasonable to suggest that the NO DIS group did not show signs of major mental illness. However, this only provides evidence for internal consistency in the identification of possible mental illness, such

that decisions to do a follow-up DIS interview was consistent with evidence for psychopathology seen on entry. In other words, this procedure included as many "positives" as possible so that the numbers of false negatives would decrease while false positives could increase. As evidenced from screening on entry, there were extremely few mentally ill who were not given a more extensive diagnostic interview.

External reliability is found in the independent ratings of the admitting psychologist. The result of the screening interview was recorded on the medical file. The primary result was a rating of "no psychopathology present" or "psychopathology present" and a description of that. The latter would identify major mental illness as well as other types of psychopathology (e.g., an explosive disorder or a borderline personality disorder).

A Chi-square comparison of the differences in the distributions of this identification of psychopathology ("none" or "present") and the categorization of NO DIS, DIS NO MMI, and MMI indicates significant differences in the proportional distribution of these categories, (Chi-square = 35.94, p = 0.0) (Table 6.03). There is evidence for correspondence between membership in the NO DIS group and not evidencing psychopathological symptoms as indicated by the admitting psychologist.

Table 6.03
Comparison of Group membership
and admitting psychologist diagnosis

	NO DIS	DIS NO MMI	MMI
Admitting psychologist			
None	87	10	20
Present	6	1	20

Chi-square = 35.94 p=0.00

When the NO DIS and DIS NO MMI are grouped together the comparison of this group with the MMI group again indicates a significant differential distribution of psychopathology (i.e., "none" or "present"), (Chi-square = 35.89, p = 0.0) between the two groups (Table 6.04). In sum, the NO DIS group had a significantly smaller proportion of those identified independently as presenting with psychopathological symptoms. In fact, the real numbers of subjects this refers to is small (n=6).

Table 6.04
Comparison of Group membership
and admitting psychologist diagnosis

	NO DIS/DIS NO MMI	MMI
Admitting psychologist		
None	97	20
Present	7	20

Chi-square = 35.50 p=0.00

Overall, these data strongly suggest that very few subjects with major mental illness were missed by the net. More importantly, they provide evidence that the NO DIS group can be considered to not have subjects with major mental illness and can be used as a comparison group to the MMI group .[3]

[3] It is important to note that if the NO DIS group does contain subjects who should be in the MMI group, then this would reduce the chances of finding differences between the two groups. In other words, if there are truly significant differences between the two groups, the effect of having MMI members in the NO DIS group is to reduce those differences, thus making it more difficult to find evidence for the true differences, making it more difficult,in turn, to prove the hypotheses.

Study 2

Sample

This sample consisted of 97 remanded prisoners drawn from a random sample of the VPSC standing population in February, March, and June, 1986. This represented approximately two-thirds of the maximum population (155) of the VPSC. All were males. The mean age was 28.8 years and the median age was 27 years.

Procedure

In February, March, and June 1986 a random sample was chosen from the population of the VPSC. Approximately two-thirds of the total jail population of 155 were to be sampled. Different units of the jail hold different types of prisoners (i.e., regular tiers, segregation unit, health care unit). I was concerned that some units might be under-represented through a simple random sampling (e.g., there might be a higher rate of non-consent from different units). I wanted to ensure that the final sample was a representative sample of the total jail. Therefore, selection was structured to sample approximately two-thirds of the total bed space for each separate unit of the jail. For example, unit "1 North" had 21 beds so I randomly selected 14 inmates from that unit.

Subjects were chosen from the daily alphabetical list of prisoners: every third prisoner from the "ABC" list of prisoners was chosen. All those identified that came from a particular unit of the jail (e.g., 1 North) were requested to be sequentially delivered to the medical unit for an interview. This procedure was repeated each day

until two-thirds of the population of a unit (e.g., 1 North) was reached. Then the procedure was repeated until I had sampled from each unit of the jail. [4]

Prisoners were met individually and the purpose of the interview was explained. Prisoners who consented then read and signed a consent form. One hundred and seventeen were asked to be interviewed and 97 consented. The interview consisted of completing the Diagnostic Interview Schedule and each subject was rated on the Brief Psychiatric Rating Scale.

Institutional and medical records for the 97 subjects were examined. Data collection attempted to minimize the number of file data that was not able to be located. Approximately 9% of the medical file data was not located and 13.2% of the institutional file (i.e., progress log) was not located.

Diagnostic procedure

In Study 2 the DIS interview was the basis of providing a diagnosis. Those who refused the interview were excluded. Those who were so disordered as to preclude completing the interview were diagnosed using the available observation categories on the DIS and confirmed by checking recorded mental health professionals' diagnoses. Again, this precluded providing a multiple diagnosis.

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[4] It has been suggested that this sampling procedure considerably influenced the prevalence rates of mental illness in the jail seen in Study 2. It is noted that the rates of mental illness in each unit are different. Obviously for those units that are specifically designated to have disturbed or disruptive inmates (e.g., segregation, the medical ward) there is an increased probability that there will be inmates with mental illness. In fact, what was attempted was to create a "snapshot" of the jail population at a point in time, this was complicated by the fact that the "snapshot" could only be constructed over a period of time (i.e., sampling over consecutive days). Since the mentally ill stay longer on remand (cf. Study 1) then there is an higher probability that they will be chosen through sampling over time. Both these factors would increase the probability of finding higher rates of mental illness.

Differences between Study 1 and Study 2

As mentioned, Study 1 and Study 2 were designed to sample different groups of the remand jail population. Study 1 was based on consecutive admissions to produce its sample, while Study 2 was based on a random sample. It was expected that these two samples would be different and that there would be different results between the two studies. In order to confirm that these were two different samples their data were collated into one data set and then the groups were compared.

It was hypothesized that the two groups would have different presenting psychopathology, differences in the number and types of charges, differences in their criminal histories, and spend different amounts of time on remand. In short, it was hypothesized that Study 2 subjects would be more criminal, evidence more psychopathology, and stay longer in jail on remand.

There was not evidence for any significant age differences between the samples. There was not evidence for differences in the number of previous entries into the criminal justice system, in the number of previous charges, nor in the seriousness of previous charges between the samples. The inmates' criminal histories did not differ between samples.

However, more importantly in terms of current criminality that led to inclusion into Study 1 or Study 2, there were significant differences between the two samples (Table 6.05). There were significant differences in the average number of charges that subjects had on entry into the study (i.e., present charges). Subjects from Study 2 (mean = 3.07) entered with significantly more charges than those from Study 1 (mean = 2.45).

Also, while Study 2 subjects had slightly more major and serious charges, but not significantly so, than did Study 1 subjects; Study 2 subjects had significantly more moderate types of charges on entry into the study, than did Study 1 subjects. There were no differences on the numbers of minor charges.

Table 6.05
Comparison of Groups on entry criminality

Variable	STUDY 1		STUDY 2		df	t	p
	mean	s.d.	mean	s.d.			
# of charges	2.45	1.18	3.07	2.12		2.83	0.005
1. major	0.06	0.20	0.10	0.39		1.13	0.26
2. serious	0.23	0.71	0.31	0.73		0.94	0.33
3. moderate	1.56	0.36	2.04	1.60		2.91	0.004
4. minor	0.60	0.89	0.62	1.04		0.34	0.64

Therefore, the two samples did not differ on the type and number of previous charges - their previous criminality. More importantly, they did differ on the number and type of charges that led to inclusion into the study. Study 2 subjects were significantly more criminal in their current involvement with the criminal justice system.

In terms of entry psychopathology rated on the BPRS, Study 2 subjects presented with significantly more severe psychopathological symptoms than did the subjects of Study 1.

Table 6.06
Comparison of Groups on entry psychopathology

Variable	STUDY 1 mean	STUDY 1 s.d.	STUDY 2 mean	STUDY 2 s.d.	df	t	p
BPRS	25.6	6.9	29.7	9.2		4.04	.0001

Also, while Study 2 subjects reported slightly more, proportionally, suicidal thoughts, but not significantly so (Table 6.07), Study 2 subjects reported a significantly different proportion of suicide attemptors (Table 6.08). Study 2 had a significantly greater proportion of their sample who reported that they had attempted suicide.

Table 6.07
Comparison of Group membership and suicidal thoughts

Suicidal thoughts	STUDY 1	STUDY 2
None	165	42
Present	135	47

Chi-square = 1.68 p=0.19

Table 6.08
Comparison of Group membership and suicide attempts

Suicide attempts	STUDY 1	STUDY 2
None	220	52
Present	80	37

Chi-square = 7.25 p=0.007

Ratings from screening interviews for psychopathology done by the admitting psychologist indicate that Study 2 subjects had a significantly greater proportion (Table

6.09) who were identified as having psychopathology present than did the subjects from Study 1.

Table 6.09
Comparison of Group membership and psychopathology identified by admitting psychologist

Psychopathology	STUDY 1	STUDY 2
None	118	31
Present	27	15

Chi-square = 3.98 p=0.046

Overall, the Study 2 sample was found to be different from that of Study 1. Study 2 subjects evidenced more psychopathology than those in Study 1.

In terms of the study period outcomes, Study 2 subjects stayed significantly longer in jail on remand than those in Study 1. In fact, Study 2 subjects (mean = 77.7 days) stayed, on average, over twice as long as Study 1 subjects (mean = 34.9 days) in remanded custody (Table 6.10).

In terms of trial outcomes, Study 2 subjects received slightly more serious criminal consequences than Study 1 subjects. Study 2 subjects received more convictions, but not significantly so (Table 6.10), no more jail sentences (Table 6.10), and more penitentiary convictions, but not significantly so (Table 6.10). Also, Study 2 subjects received longer sentences (mean = 521 days) than Study 1 subjects (mean = 339 days), but not significantly so (Table 6.10).

Table 6.10
Comparison of Groups on criminal consequences

Variable	STUDY 1 mean	STUDY 1 s.d.	STUDY 2 mean	STUDY 2 s.d.	df	t	p
Remand days	35.1	53.8	74.0	80.4		4.96	0.000
Sentence days	46.3	77.9	40.6	59.4		0.77	0.443
# sentences	1.21	1.31	1.51	1.51		1.87	0.063
# jail sentences	0.99	1.3	1.13	1.3		0.95	0.346
# pen. sentences	0.08	0.3	0.15	0.5		1.71	0.089
# sentence days	339	1130	521	1124		1.35	0.177

In terms of their total use of mental health and health services, that is their total number of visits, Study 2 subjects used significantly more services, on average, on a per day basis, than did Study 1 subjects (Table 6.11). Study 2 subjects used significantly more psychological services (i.e., visits to the psychologist) than did subjects of Study 1. Study 2 subjects used significantly more medical services (i.e., visits to the physcian) than did Study 1 subjects. There was no significant difference in the number of visits to the psychiatrist, which was a relatively rare event. Also, Study 2 subjects needed significantly more emergency phone calls for medications from the nurses to the medical doctors, than did Study 1 participants. Overall, subjects from Study 2 received significantly more mental health services (i.e., M.H. visits) than did Study 1 subjects.

Table 6.11
Comparison of Groups on use of health and mental health services: total number

Variable	STUDY 1 mean	STUDY 1 s.d.	STUDY 2 mean	STUDY 2 s.d.	df	t	p
Psycholog. visit	1.41	3.11	3.57	5.08	374	4.84	0.000
Physician visit	1.45	3.31	3.82	5.13	374	5.30	0.000
Psychiat. visit	0.27	1.03	1.06	3.03	374	3.47	0.001
Nurse phone call	0.92	2.07	2.54	4.03	374	4.99	0.000
M.H. visit	1.46	3.41	4.21	6.05	374	5.40	0.000

When these services are calculated on a per day basis, the differences between subjects from Study 1 and subjects from Study 2 on their use of medical and mental health services, still hold, but the differences are less robust. Study 2 subjects did use more psychological and total mental health services, on a per day basis, than did Study 1 subjects. Study 2 subjects used more medical services (i.e., physician visits and nurse phone calls than did Study 1 subjects, but the differences were not significant. These data could be misleading. For example, nurse phone calls occur most frequently at the beginning of incarceration -- they represent orders for medication before the physcian has an opportunity to see the inmate. For example, an inmate who is a late admission and is experiencing difficulty sleeping may result in the nurse phoning for a prescription. Thus, calculating the occurence of this, averaged by the length of the remand, misses the essence of the data.

Table 6.12
Comparison of Groups on use of health
and mental health services: average per day

Variable	STUDY 1 mean	STUDY 1 s.d.	STUDY 2 mean	STUDY 2 s.d.	df	t	p
Psycholog. visit	0.16	0.27	0.11	0.15	374	2.23	0.027
Physician visit	0.06	0.10	0.07	0.10	374	1.48	0.139
Psychiat. visit	0.01	0.05	0.02	0.04	374	0.80	0.427
Nurse phone call	0.05	0.15	0.04	0.08	374	0.36	0.716
M.H. visit	0.17	0.34	0.13	0.21	374	2.01	0.045

In terms of the total number of institutional problems during the remand period, Study 2 subjects evidenced significantly more problems and difficulties on average, on a per day basis, than Study 1 subjects (Table 6.12). Study 2 subjects received significantly more convictions for infractions against the correctional centre rules and regulations than those in Study 1 (i.e, Total # charges). Those in Study 2 received significantly more days placed in segregation as a result of those convictions than Study 1 subjects (i.e., Total # days). Study 2 subjects received significantly more informal disciplinary actions that resulted in being "locked down" in one's cell (i.e., lock-ups), and more informal discipline lock-up days than did Study 1 participants. Overall, Study 2 subjects were more problematic and difficult, which resulted in them being more severely disciplined, than Study 1 subjects.

Table 6.13
Comparison of Groups on Institutional charges: average per day

Variable	STUDY 1 mean	STUDY 1 s.d.	STUDY 2 mean	STUDY 2 s.d.	df	t	p
Total # charges	0.15	0.64	0.64	1.32	381	4.68	.0000
Total # days	0.84	4.31	3.20	9.27	381	3.32	.0010
Total # lock-ups	0.23	0.82	0.82	1.49	381	4.80	.0000
Total # lock-up days	0.29	1.11	1.11	2.14	381	4.75	.0000

When these data were calculated on a per day basis, for the most part, the differences between subjects from Study 1 and the subjects from Study 2 still hold. However, as in the medical and psychological service data, the differences decrease and the significance of those differences is not so robust. Overall, Study 2 subjects committed significantly more formal infractions against the rules and regulations of the institution than did those from Study 1, and, consequently, the subjects of Study 2 served significantly more time in segregation than did Study 1 subjects. Again, Study 2 participants received more informal punishments and lockdowns in their cells than did subjects from Study 1, but these were not significant differences .[5]

5 Some have suggested that infractions in jail are more likely to occur at certain times in an inmates sentence. High frequency times are when the person enters the jail or is just about to leave the jail. If this is true, then calculating an average by dividing the number of infractions by the number of days on remand could lose the essence of this data. For example, it could be that the difference between Study 1 and Study 2 in the length of time the subjects served on remand is not important in regards to these variables.

Table 6.14
Comparison of Groups on Institutional charges:
average per day

Variable	STUDY 1		STUDY 2		df	t	p
	mean	s.d.	mean	s.d.			
Total # charges	0.003	0.01	0.008	0.02	381	2.81	.0052
Total # days	0.014	0.07	0.038	0.11	381	2.35	.0195
Total # lock-ups	0.008	0.05	0.014	0.04	381	1.02	.3078
Total # lock-up days	0.009	0.6	0.018	0.05	381	1.20	.2300

The above results point unequivocally to the fact that Study 1 and Study 2 represent two different samples of the VPSC population, as was the original methodological intention. The following chapters describe the results from each study separately.

CHAPTER VII

RESULTS STUDY 1

Outline

This chapter on the results of Study 1 is presented in the following sections. First, a description of the sample on (1) demographics, psychiatric history, and current functioning, (2) criminal history, current criminal characteristics, and criminal outcomes, (3) use of psychological and medical services, and (4) institutional performance (e.g., CCC&R charges) is given. The second section presents the epidemiological results. The third section presents the results of the comparison of the mentally ill to the non-mentally ill on the demographic, criminal, and outcome variables of interest [1]

Description of Sample Characteristics

Demographic characteristics

As mentioned before, the 313 subjects in Study 1 were all male. The average age was 28.3 years, the mode was 26 years old, the median 22 years old (Table 7.01) [1] The youngest was 18 and the oldest was 66 years old. The positive skewness of the data indicates that the preponderance of subjects were in their late teens or early twenties.

Nearly all subjects were Canadian citizens (95%), while most were born in Canada (87%) [2] In terms of their ethnic backgrounds, the largest group (36%) came

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[1] The tables of the results are presented in a sequential order corresponding to the presentation of results. Therefore, for ease of presentation tables are inserted into the following pages of the text.

[2] The frequency of category data is reported in percentages that have been rounded off to the nearest whole number for the ease of presentation. The data has been presented in tables as percentages to one decimal point.

Table 7.01
STUDY 1 DEMOGRAPHIC CHARACTERISTICS

	n	range	mean	std. dev.	median	mode
AGE (years)	313	16-66	28.4	8.3	22	26

ETHNIC CHARACTERISTICS

Citizenship (n=313)

Canadian	296	94.6%	USA	11	3.5%	European	1	0.3%
Asian	3	1.0%	Russian	1	0.3%	Central American	1	0.3%

Place of birth (n=308)

B.C.	105	34.1%	Alberta	34	11.0%	Saskatchewan	14	4.5%	Manitoba	21	6.8%
Ontario	53	17.2%	Quebec	18	5.8%	Nova Scotia	5	1.6%	New Brunswick	3	1.0%
Newfoundland	3	1.0%	P.E.I.	0	0.0%	Yukon	7	2.3%	N.W.T.	4	1.3%
United States	12	3.9%	Great Britian	5	1.6%	Europe	12	3.9%	Central America	2	0.6%
China	2	0.6%	Hong Kong	2	0.6%	Australia	1	0.3%	USSR	1	0.3%
Caribbean	2	0.6%	India	2	0.6%						

Ethnic group or background (n=312)

Anglo-saxon	114	36.5%	French Canadian	31	9.9%	Native Indian	42	13.5%	Metis	15	4.8%
Other caucasian	79	25.3%	Black	16	5.1%	Asian	5	1.6%	East Indian	4	1.3%
Jewish	2	0.6%	Unknown	5	1.6%						

EDUCATION

	n	range	mean	std. dev.	median	mode
Number of grades completed	307	0 - 22	10.5	2.5	10	10

Education achieved (n=308)

None	0	0.0%	Elementary	19	6.2%	Jr. Secondary	157	51.0%	Sr. Secondary	68	22.0%
Vocational	20	6.5%	College	12	3.9%	University	31	10.1%	Post Graduate	1	0.3%
Unknown	5	1.6%									

Table 7.01 continues

Table 7.01 STUDY 1 DEMOGRAPHIC CHARACTERISTICS continued

EMPLOYMENT

Occupation in last 3 months (n=312)

Unemployed	255	81.1%	Unskilled	13	4.2%	Semi-skilled	22	7.1%	Skilled	10	3.2%
Professional	5	1.6%	Student	4	1.3%	Retired	1	0.3%	Other	2	0.6%

	n	range	mean	std. dev.	median	mode
Number of months since last job	226	0 - 240	35.2	40.4	24	24

If unemployed the last occupation (n=312)

Unemployed	37	11.9%	Unskilled	105	33.7%	Semi-skilled	62	19.9%	Skilled	22	7.1%
Professional	7	2.3%	Student	1	0.3%	Unknown	20	6.4%	Not applicable	57	18.3%

Income source (n=312)

Self	64	28.5%	Spouse	1	0.3%	Parents	4	1.3%	Relative	1	0.3%
UIC	8	2.6%	Welfare	212	67.9%	Pension	4	1.3%	Disability Pension	13	4.2%
Other	4	1.3%	Unknown	1	0.3%						

LIVING ARRANGEMENTS

Living arrangements in last 2 weeks prior to offence (n=309)

Transient	37	12.0%	Alone in hotel	41	13.3%	Hospital	1	0.3%		
Boarder	6	1.9%	Prison/jail	14	4.5%	Rooming house	11	3.6%		
Transient, with friends	21	6.8%				Regular address, with spouse	18	5.8%		
Regular address, alone	32	10.4%				Regular address, with children	1	0.3%		
Regular address, with family	16	5.2%				Regular address, with relative	17	5.5%		
Regular address, with parents	26	8.4%				Regular address, with friends	34	11.0%		
Regular address, girlfriend	18	5.8%				Hotel with girlfriend	9	2.9%		
Hotel, with friends	7	2.3%								

Table 7.01 continues

Table 7.01 STUDY 1 DEMOGRAPHIC CHARACTERISTICS continued

ADOLESCENCE

Living arrangements prior to age 13 (n=308)

Natural parents	171	55.5%	Mother alone	52	16.9%	Father alone	14	4.5%	Adoptive parents	9	2.9%
Foster parents	21	6.8	Betweeen parents	3	1.0	Other or ward	11	3.6%			
Grandparents or relatives	8	2.6%	Mother & Step-father	13	4.2%	Father & Step-mother	6	1.9%			

Delinquency history (n=308)

No	124	40.3%	Yes	184	59.7%

MARITAL STATUS

Marital status (n=311)

Single	177	56.9%	Married	19	6.1%	Common-law	67	21.5%		
Divorced	26	8.4%	Separated	19	6.1%	Widowed	3	1.0%		

	n	range	mean	std. dev.	median	mode
Age at first marriage	311	14 - 46	20.9	4.8	20	--

Number of marriages (n=311)

None	223	71.7%	One	67	21.5%	Two	17	5.5%	Three	4	1.3%

Number of Common-law relationships

None	164	52.7%	One	97	31.2%	Two	30	9.6%	Three	8	2.6%
Four	6	1.9%	Five	3	1.0%	Six	1	0.3%	Nine	2	0.6%

Number of children

None	202	65.0%	One	55	17.7%	Two	30	9.6%	Three	12	3.9%
Four	9	2.9%	Five	1	0.3%	Eight	2	0.6%			

Table 7.01 continues

from an Anglo ethnic group, 26% were from other European backgrounds, 10% were French Canadian, 14% were Native Indian and 5% were Metis . [3]

Their educational histories indicate that most of the group completed Junior Secondary school (51%) with 22% completing Senior Secondary School. Interestingly, 6% had only Elementary school education while 10% had done some university courses. The average grade obtained was 10.5, while more frequently subjects had obtained grade 10 (28%) or grade 12 (16%). The median and the mode were both grade 10 indicating that, on average, the sample was moderately educated.

In terms of their current social functioning, most subjects were not employed and had poor occupational prospects. In the previous 3 months before arrest, 82% (n=255) were unemployed. Overall, 4% were employed as unskilled, 7% as semi-skilled, and 3% as skilled workers. In the total group, unemployment was characterized by 12% said they had not been previously employed, 41% had been employed as unskilled, and 24% as semiskilled workers; 8% did not supply any information about the last job they had. Of the unemployed, the most frequent period of time since they last had a job was 3 years The average length of time since their last job was 35 months.

In terms of financial support, most of the group were on welfare (68%). The next largest group were self-supporting (21%). There were 3% on unemployment insurance and 4% were supported by a disability pension such as due to a mental health disability pension. The small number of subjects receiving unemployment insurance indicates that, of the unemployed, very few had been working in a regular job.

Living arrangements in the previous two weeks before the arrest for the remanded offence indicates a large variety in the stability and location of their dwelling.

[3] The number of subjects vary for each variable (cf. Table 7.01) as some subjects did not answer the question.

One portion was transient (19%), most lived at a regular address (42%), some lived in a hotel or rooming house (22%), while a few had just been released from jail (5%). Many of the sample lived alone (39%), some lived with a spouse and/or family (11%), some with a girlfriend (9%), some with parents or relatives (14%), and some with friends (18%). The most frequent specific type of living arrangement was either transient and alone (12%), or alone in a hotel (13%).

Most subjects had lived with both natural parents as a child and adolescent (57%). The next largest group had lived with one parent alone (21%). Six percent had lived with a parent and step-parent, while 7% had lived with a foster parent.

Most of the group had been in trouble with the criminal justice system as an adolescent. One hundred and eighty two (60%) said they had been convicted of a delinquency.

In terms of their marital status, 57% of the group were single. The next largest group currently lived in a common-law relationship of at least one year (22%). Eight percent were divorced, 6% were married, and 6% were separated. Sixty five percent did not have any children, 18% had one child, 10% had 2 children, 4% had 3 children, and 4% had 4+ children.

Admission psychiatric history

On admission to the remand centre, 109 subjects (35%) said they had seen a psychologist, psychiatrist, or physician for any emotional or mental problems (excluding

juvenile assessments for court) (Table 7.02) .[4]Eighty-nine persons (28%) said they had been prescribed medication by a physician for treatment of emotional or psychological problems. Most

frequently subjects were given tranquillizers (41 persons) (13%), 14 (4.5%) stated they had been prescribed anti-psychotics, and a few (4 persons) said they had been on Lithium Carbonate.

Of the 109 persons who said they had seen a mental health professional for psychological problems, 15 did not say when the problems first became apparent. In the remaining 94 persons, the first manifestation of psychiatric problems occurred, on average, at 17.4 years. Five persons (5%) said the problems first became apparent before the age of 6. Twenty two (20%) said the problem started between the ages of 6 to 12, 32 persons (29%) said it started between the ages of 13 to 19, 26 persons (24%) said it started between the ages of 20 to 29, and for 9 persons their problems started after the age of 30. The oldest age of first manifestation was 48 years, and 2 persons said their problems had started from birth.

Ninety-one of the ninety-four said they had received some form of treatment. The average age of first treatment was 19 years. Approximately one-half of this group started treatment before the age of 19.

In the sample, 67 (22%) said they had been admitted to a psychiatric inpatient facility (i.e., they said they had been admitted to hospital for emotional or mental problems). The group of 67 was comprised of 42 who had had one admission, 7 who had had 2 admissions, 9 who had had 3 admissions, and 9 who had had 4 or more admissions. Of those who were admitted to hospital (67), 15 (25%) could

[4] The reported psychiatric history of both the subject and their family is shown in Table 7.02.

Table 7.02
STUDY 1 PSYCHIATRIC HISTORY

SELF

History of previous mental illness (n=313)

No	204	65.2%	Yes	109	34.8%							

Prescribed medication for psychological or emotional problems (n=313)

None	220	71.2%	Yes	89	28.4%	Unknown	4	1.3%				

Type of medication prescribed (n=313)

Unknown	12	3.9%	Barbituates	12	3.9%	Tranquillizers	41	13.3%	Methadone	2	0.6%	
Lithium Carbonate	4	1.3%	Anti-psychotics	14	4.5%	Many different types	4	1.3%				

	n	range	mean	std. dev.	median	mode
Age at first manifestation of psychiatric illness (years)	94	1-48	17.4	8.8	15	13

	n	range	mean	std. dev.	median	mode
Age at first treatment of psychiatric illness (years)	91	4-48	19.4	8.7	18	--

Number of admissions to an inpatient psychiatric facility (n=309)

None	242	78.3%	One	42	13.6%	Two	7	2.3%	Three	9	2.9%	
Four	2	0.6%	Five	2	0.6%	Six	0	0.0%	Seven	1	0.3%	
Eight	3	1.0%	Nine	1	0.3%							

	n	range	mean	std. dev.	median	mode
Number of months since last discharged (months)	52	0-288	58.0	70.9	24	24

Number of months since last discharged (n=52)

None	2	3.8%	1 month	3	5.8%	2 - 5 months	5	9.6%	6 - 11 months	6	11.5%	
12 -23 months	3	5.7%	24 - 35	9	17.3%	36 -47 months	3	5.8%	48 - 59 months	1	1.9%	
60 - 71	5	9.6%	72 - 119 months	7	13.3%	120 + months	8	15.2%				

Table 7.02 continues

Table 7.02 STUDY 1 PSYCHIATRIC HISTORY continued

History of previous psychiatric outpatient care (n=313)

No	225	71.9%	Yes	79	25.2%	Unknown	9	2.9%

Type of previous outpatient care (n=73)

Mental health center	0	0.0%	Community care team	9	12.3%
Outpatient, Riverview	1	1.4%	Outpatient, psychiatric hospital	2	2.7%
Outpatien, general hospital	2	2.7%	Outpatient, F.P.S.C.	3	4.1%
Private therapy, psychiatrist	20	27.4%	Private therapy, psychologist	3	4.1%
Family doctor	22	30.1%	Other private therapist	1	1.4%
Many different therapists	10	13.7%			

FAMILY PSYCHIATRIC HISTORY

Psychiatric disturbance in family (n=308)

None	219	71.1%	Yes	82	26.6%	Unknown	7	2.3%

Mother psychiatric disturbance (n=308)

None	242	78.61%	Yes	57	18.5%	Unknown	9	2.9%

Mother illness type (n=308)

Psychosis	8	2.6%	Nervous breakdown	28	9.1%	Psychiatric illness but unknown	21	6.8%

Father psychiatric disturbance (n=308)

None	279	90.6%	Yes	14	4.5%	Unknown	15	4.9%

Father illness type (n=308)

Psychosis	1	0.3%	Nervous breakdown	1	0.3%	Psychiatric illness but unknown	11	3.6%
Organic Brain Syndrome	1	0.3%						

Sibling psychiatric disturbance (n=308)

None	255	82.2%	Brother	20	6.5%	Sister	23	7.4%
Yes but not known	5	1.6%	Unknown	5	1.5%			

Sibling illness type (n=308)

Psychosis	7	2.3%	Nervous breakdown	6	2.0%	Psychiatric illness but unknown	35	17.4%

not say how long it had been since discharge. On average, it was nearly six years since they were last discharged from an inpatient hospital. More specifically, 3% (2 persons) had been discharged in the last

month, 16% had been discharged in the last 1 to 6 months, 7% in the last 7 to 12 months, 17% in the last 2 years, 17% in the last in 3 to 5 years, 13% in the last 6 to 10 years, and 8 persons had been discharged more than 10 years ago.

In the sample 79 persons (25%) reported that they had received previous outpatient care. The type of outpatient care (i.e., location and agency) varied greatly. Of those who had received outpatient care and who identified the location (73 persons) of the care, most had been cared for by their family physician (30%) or a private psychiatrist (27%). Ten persons (14%) had many different therapists. Surprisingly, only 9 persons (12%) received outpatient treatment through a Community Care team of Mental Health. One person was treated through Riverview outpatient department. Two persons were treated through other psychiatric hospital outpatient clinics, 2 persons through outpatient departments of general hospitals, 3 persons through the outpatient clinic of the Forensic Psychiatric Services Commission, 3 persons through private psychologists, and 1 person through another type of mental health therapist.

Eight-two persons (26%) reported that one member of their family had seen a psychologist, psychiatrist, or family physician for emotional or psychological problems. It was most frequently their mother (57 persons) who had received treatment for a "nervous breakdown" (28 persons). Only 14 fathers were reported as having psychiatric problems, nearly all of an unidentified nature. Twenty-one stated that their sister had a psychiatric disturbance, 19 had a brother who had a psychiatric disturbance, and 5 had an undetermined sibling with a psychiatric disturbance. Their illnesses were mostly of

an unidentified nature. Three persons had a second sibling with a psychiatric disturbance.

Current Functioning on Entry

On entry, the subjects were also asked about current problems they were experiencing or about problems they had in the past in jail (Table 7.03).

Sixty-eight persons (22%) said they had had problems with staff in jail during past incarcerations. This referred to any jail or prison staff and was not circumscribed to Vancouver Pretrial staff. A slightly smaller proportion (18%) said they had had previous problems with inmates in jails.

Slightly more than half the sample (52%) said they were currently experiencing problems that they were worried about. The most frequent problem was of a personal or family nature (18%). A large number (10%) cited problems that came under the rubric of mental health problems. Fourteen persons (5%) said they were worried about court. Thirteen were worried about suffering through alcohol or drug withdrawal. A small number were worried about their location in jail (1.6%) (e.g., whether they would be in protective custody or whether there would be someone who would be out to get them).

A large proportion of the sample, 134 persons (43%), stated they that had a current alcohol problem. A larger proportion (52%) stated that they had had an alcohol problem in the past. The average length of time, for the whole sample, for an alcohol problem was 59 months. For those who said they had a current alcohol problem, the average length of this problem was just over 11 years. Fifty percent of this group had an alcohol problem for 10 years or longer.

Table 7.03
STUDY 1 CURRENT FUNCTIONING

PROBLEMS ON ENTRY

Problems with jail staff in jail before (n=313)

No	243	77.6%	Yes	68	21.7%	Unknown	2	0.6%

Problems with inmates in jail before (n=313)

No	256	81.8%	Yes	55	17.6%	Unknown	2	0.6%

Type of current problems (n=313)

None	150	47.9%	Yes, unknown	32	10.2%	Need medication	3	1.0%	Physical problems	6	1.9%
Unknown	2	0.6%	Court	14	4.5%	Personal/family	57	18.2%	Suffering withdrawl	13	4.2%
Worried about location in jail	5	1.6%	Mental health problems	31	9.9%						

ALCOHOL PROBLEMS

Current alcohol problem (n=313)

No	179	57.2%	Yes	134	42.8%			

Previous alcohol problem (n=313)

No	151	48.2%	Yes	162	51.8%			

Number of months of alcohol problem	n	range	mean	std. dev.	median	mode
	294	0 -432	59.4	90.5	0	0

Number of months of alcohol problem for those with problems	n	range	mean	std. dev.	median	mode
	133	2 -432	133.4	40.5	120	120

Table 7.03 continues

Table 7.03 STUDY 1 CURRENT FUNCTIONING continued

DRUG PROBLEMS

Current drug problem (n=313)

No	195	62.3%	Yes	118	37.7%

Previous drug problem (n=313)

No	161	51.4%	Yes	152	48.6%

	n	range	mean	std. dev.	median	mode
Number of months of drug problem	296	0 -336	32.1	55.5	0	0
Number of months of drug problem for those with problems	127	2 -336	74.9	25.4	60	60

Type of drug problem (n=313)

None	150	50.5%	Cannabis	45	14.4%	Amphetamines	22	7.0%	Barbituarates	6	1.9%
Tranquillizers	12	3.8%	Cocaine	15	4.7%	Opioids	71	22.7%	Hallucinogens	18	5.8%
Talwin & Ritalin	28	8.9%	Solvents	3	1.0%	All	16	5.1%			

SUICIDE

Have you ever thought of suicide (n=299)

No	157	52.5%	Yes	142	47.5%

	n	range	mean	std. dev.	median	mode
Number of times thought of suicide	294	0 -30	1.7	3.5	0	0

Number of times thought suicide (n=294)

None	159	54.1%	One	56	19.0%	Two	25	8.5%	Three	13	4.4%
Four	7	2 4%	Five	9	3.1%	Six	1	0.3%	Seven	0	0.0%
Eight	9	3.1%	Nine	0	0.0%	Ten	8	2.7%	11 - 15	4	1.3%
16 - 20	3	1.0%	21 - 30	1	0.3%						

Table 7.03 continues

Table 7.03 STUDY 1 CURRENT FUNCTIONING continued

Have you ever attempted suicide (n=298

No	223	74.8%	Yes	75	25.2%							

Number of times attempted of suicide	n	range	mean	std. dev.	median	mode
	294	0 -20	0.7	2.1	0	0

Number of times attempted suicide (n=294)

None	223	75.9%	One	34	11.6%	Two	15	5.1%	Three	6	1.9%	
Four	6	1 9%	Five	5	1.6%	Ten	1	0.3%	11 - 15	3	1.0%	
16 - 20	1	0.3%										

Current suicide risk (n=297)

No	272	91.5%	Yes	25	8.4%							

CURRENT MENTAL HEALTH NEED

Do you want to see a psychiatrist or psychologist (n=304)

No	232	76.3%	Yes	72	23.7%							

In terms of drug problems, a slightly smaller proportion, 118 persons (38%), said they had a current drug problem. Forty nine percent (152 persons) stated they had had a drug problem in the past. For the whole sample, the average length of this problem was 32 months. For those who stated that they had a current drug problem, the average length of this problem was just over 6 years. They were asked what type of drug problem they had (e.g., many had multiple problems). The most frequent problem (23%) was with opioids. Fifteen percent said they had a problem with cocaine, and 15% stated they had a problem with cannabis and its derivatives. The use of talwin and ritalin was a problem for 9%, amphetamines for 7%, barbiturate for 2%, tranquillizers for 4%, hallucinogens for 6%, and solvents for 1%. Twenty-six persons (9%) said they had a problem with all drugs.

They were asked if they had thought of suicide in the past - which meant had they contemplated suicide seriously rather than simply having the thought cross their mind. One hundred and forty two (48%) said they had thought about suicide in the past. For the sample, the average number of suicidal thoughts was 1.7. For those having a suicidal thought, the average number was 3.7 suicidal thoughts. A significantly small portion (35 persons) had had 5 or more suicidal thoughts.

A substantial proportion, 75 persons (25%), had attempted suicide in the past. The average for the sample was 0.7 times, while for the attemptors it was 2.8 times. Most (38 persons) had only attempted one time. However, 15 had attempted 2 times, 17 had attempted 3 to 5 times, and 5 had attempted 11 to 20 times.

They were asked if they considered themselves to be at risk to commit suicide while incarcerated. By this criterion, at entry, 25 persons (8%) said they were at risk to commit suicide.

Finally, 72 persons (24%) requested to see a psychologist or psychiatrist.

Criminal History

Two hundred and fifty eight subjects (82%) had had previous contact with the B.C. correctional system [5]. This contact, termed "entries", could consist of been charged in Court, remanded to await trial or sentencing, entering to serve a sentence, appearing in court for bail, or simply appearing in court to answer charges .[6]These 258 persons had entered the correctional system a total of 1752 times for an average of 7 entries per person [7]. Most of these entries were for a remand in custody to await trial (47%); entry into jail to serve a sentence (21%) and into court to be granted bail (20%) were the next most frequent entries.

The most frequent outcome of the 821 remands was to serve a sentence (34%). To be bailed out of jail (i.e., bail release) was also fairly frequent (29%). To be released at court without bail, or without any further action, occurred in 18% of the remands, while simply having the remand end without further action and be released directly from jail occurred in 11% of the remands.

Of the 258 subjects previously entering the criminal justice system, 227 subjects spent time in B.C. provincial jails. These subjects had spent an average of 389 days in custody. Approximately three-quarters of the total custody days were spent under sentence by 196 persons, on average, for 334 days. Slightly more subjects (208),

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[5] The criminal history information for each subject was coded from their B.C. Corrections case-file information. This information just pertains to B.C. correctional information and does not include criminal charges and convictions that took place outside of B.C., except when a prisoner was transferred to B.C.
[6] An entry was only counted as "one" if the person entered Court to answer charges and then was directly sent to jail for a remand period which was then followed by a custodial sentence period. Entries simply reflected the type and number of entries into the correctional system.
[7] The average number of entries for the total sample was 5.6 while for the 258 it was 6.8

approximately two-thirds of the total sample, had spent time in jail under a remand order for an average of 109 days in remanded custody.

Forty six subjects had been sent to a penitentiary for a total of 65 times for either a penitentiary sentence or a return to a penitentiary for a revocation of parole.

Forty two persons had escaped from a B.C. provincial jail in the past, for a total of 63 times.

Ten persons, approximately 3% of the total sample, had previously entered into the mental health system after a criminal justice system entry. Most of these were either mental health entries from court or while serving sentence. The type and location of mental health entry (e.g., the Forensic Psychiatric Institute) was not specified.

The 258 persons had been previously charged with 2627 offences for an average of 10 charges per person (Table 7.04) [8,9] Murder charges only represented 0.5% of the total number of charges. The most frequent types of charges were for major theft (27%), minor theft (20%) (e.g., theft under $200, food fraud, false pretences), court charges (9%) (primarily "failure to appear" charges), and drug offences (8%). There were 66 offences against the public order or nuisance offences (e.g., public disturbance, public mischief) which was 2.5% of the total number of charges.

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[8] The total number of charges was based on the charges identified for each entry.

[9] The number and type of charges was used, rather than simply identifying the number and types of convictions, because I wanted to identify the number of contacts (i.e., entries) with the criminal justice system and the nature of the charge for that contact. For example, I wanted to be able to capture the number and types of offences a person was remanded on but not necessarily convicted for. The number and type of convictions is discussed later.

Table 7.04
Criminal history: charges

Variable	persons	number	%
1. murder	7	12	0.5%
2. sexual assault	16	23	0.9%
3. assaults	84	171	6.5%
4. robbery	73	130	4.9%
5. weapons	56	90	3.4%
6. property	73	109	4.1%
7. public order	45	66	2.5%
8. major theft	180	711	27.0%
9. minor theft	140	513	19.5%
10. drug	85	210	8.0%
11. breaches	93	150	5.7%
12. mva	68	175	6.7%
13. other	27	41	1.6%
14. court/escape	120	227	8.6%
1. major	17	21	0.8%
2. serious	50	83	3.2%
3. moderate	240	1548	58.9%
4. minor	192	975	37.1%

These offences were also categorized by seriousness of the offence (Table 7.04). There were 21 major offences representing 0.8% of the total number of offences. There were 83 serious offences (3%), 1548 moderate offences (59%), and 975 minor offences (37%). Seventeen subjects had been charged with a major offence, 50 with severe offences, 240 with moderate offences, and 192 with minor offences.

Two hundred and twenty six subjects had received convictions for a total of 1631 sentences. Of these sentences, most were for provincial jail sentences (74%), in which 192 subjects received 1213 jail sentences. Twenty two percent of the sentences were

probation sentences received by 152 subjects. Seventy eight subjects served 152 jail sentences as a result of defaulting on a fine (9% of the total). Sixty seven received 90 community work service sentences (6%), which were often given in conjunction with probation sentences. Only 27 subjects received 39 penitentiary sentences (2%). [10]

The total number of sentenced days given for the above convictions was 198,841, for an average of 989 days for the 201 persons given custody sentences. Forty subjects received cumulative sentences for less than 90 days (20% of the total of 201). Nineteen received 90 to 182 days (9%), 20 received 183 to 364 days (10%), and 33 received 1 year to 2 years less a day (16%) in cumulative sentenced days. Forty eight received 2 to 5 years less one day (24%), 35 received 5 to 10 years (17%), and 6 received 10+ years (3%) in sentenced days.

There were 153 subjects given a total of 5987 months of probation for an average of 19 months of probation. Of this group the most frequent cumulative probationary time was for 1 to 2 years (38 subjects), then 2 to 3 years (36 subjects), and 3 to 4 years (27 subjects). One subject had accumulated an astounding 15+ years of probation.

Current Criminal Status

The 313 subjects were charged with a total of 381 offences on entry to VPSC. Also, while awaiting trial, an additional 388 new charges were laid. Thus, the 313 subjects were charged with a grand total of 769 offences for an average of 2.5 offences per person (Table 7.05).

Major theft offences was the most frequent type of charge (31%), nearly one-half of the sample (144) had been charged with this. Fifty nine subjects were charged

[10] The summation of the frequency of the different types of sentences is greater than the total number of convictions because occasionally a conviction involved two sentences, such as jail sentence followed by a probation sentence.

with 74 assault offences (10%). Drug offences (73) were charged against 51 subjects. Minor theft (60 charges), breaches (57 charges), court offences (52 charges), and robbery (51 charges) were the next most frequent offences. Twelve subjects were charged with murder offences (12), representing 4% of the total sample. Another 12 subjects were charged with sexual assault (20 charges). Only 8 subjects were charged with 8 public order or nuisance offences, representing 3% of the sample.

Table 7.05
Current criminal charges

Variable	persons	number	%
1. murder	12	12	1.6%
2. sexual assault	12	20	2.6%
3. assaults	59	74	9.7%
4. robbery	45	51	6.7%
5. weapons	21	24	3.1%
6. property	27	35	4.6%
7. public order	8	8	1.0%
8. major theft	144	236	30.8%
9. minor theft	45	60	7.8%
10. drug	51	73	9.5%
11. breaches	50	57	7.5%
12. mva	29	49	6.4%
13. other	14	14	1.8%
14. court/escape	45	52	6.8%
1. major	15	19	2.4%
2. serious	47	72	9.4%
3. moderate	249	489	63.8%
4. minor	127	187	24.4%

The seriousness of the offences charged against the subjects for the study period was as follows (Table 7.05). Fifteen subjects were charged with 19 major offences, representing 2% of the total offences. Forty seven subjects were charged with 72 serious offences (9%). Two hundred and forty nine subjects were charged with 489 moderate offences (64%). And 127 subjects were charged with 187 minor offences (24%).

For the most part the sample only entered once into the criminal justice system for the entry charge(s). However, 20 subjects were remanded twice on the entry charge(s) creating a total of 333 remands. Also, 12 subjects additionally entered into the criminal justice system to serve sentence for the study entry charge(s). Typically, in these cases the subject had been released from his remanded custody order and then entered on the original entry charge(s) under a custody sentence. A few (5) re-entered for a probation sentence, fewer (4) for a bail hearing, and only 1 for a court appearance on the original entry charge(s).

Criminal Outcomes

The results of the 333 remands are as follows. Of those released: 31 (9.3%) of the remands simply ended, 24 (7.2%) were released at court, and 94 (28.2%) were released on bail. Of those who entered the criminal justice system: 129 (38.7%) remands were followed by a jail sentence, 20 (6%) went to a federal penitentiary on a federal sentence, 15 (4.5%) were placed on probation, and 10 (3%) re-entered a federal penitentiary. There were 6 other outcomes. And 4 (1.3%) remands entered the mental health system.

In terms of the amount of time spent incarcerated for a remand on these charges the 313 persons spent a total of 11,082 days on remand, for an average of 35.4 days on remand per person (Table 7.06). This was constituted by the following. The initial entry at VPSC lead to a total of 8,939 days at VPSC, with an additional 1,618 days on remand at other institutions, for a total of 10,557 days. Since the person may re-enter on the original charges, there were additional days on remand: 461 at VPSC and 64 at other institutions. This gave a total of 9400 days at VPSC and 1682 at other institutions (shown below).

Table 7.06
Days spent on remand

	Initial days	Initial ave.	Additional days	Additional ave.	Total days	Total ave.
VPSC	8,939	28.6	461	1.4	9,400	30.0
OTHER	1,618	5.1	64	0.3	1,682	5.4
TOTAL	10,557	33.7	525	1.7	11,082	35.4

The 769 charges lead to a total of 204 persons being convicted and given a total of 384 sentences. Thus, for 109 persons the charges were dropped, not proceeded with, or they were found not guilty. Of those given a sentence: 168 persons received 313 jail sentences, 21 received 25 penitentiary sentences, 54 received 63 probation sentences, 7 received 12 default of fine sentences, 13 received 15 community work service sentences, and 1 person received another sentence.

Table 7.07
Outcomes of charges

Frequencies Type	0	1	2	3	4	5	6	Persons	Total
Total # sentences	109	107	46	31	11	6	3	204	384
# jail sentences	145	88	41	23	9	4	3	168	313
# pen sentences	292	17	4					21	25
# Prob sentences	259	45	9					54	63
# DWF sentences	306	3	3	1				7	12
# CWS sentences	300	11	2					13	15
# Other sentences	312	1						1	1

These sentences resulted in 185 persons being sentenced for a total of 106,635 days for an average of 340.7 days for the sample. For those sentenced, they received an average of just over 1.5 years (576.4 days per person) to be served in custody. The median for the sample was 28 days. Of those sentenced: 29 received less than 30 days,

20 received 1 month to 59 days, 14 received 2 months to 89 days, 30 received 3 months to 179 days, 31 received 6 months to 1 year less a day, 27 received 1 year to 2 years less a day, 24 received 2 to 5 years, 5 received 5 to 10 years, and 5 received 10+ years of sentence time.

There were 56 persons given probation sentences for a cumulative total of 1192 months: 1 for 1 month, 1 for 9 months, 18 for 12 months, 7 for 18 months, 22 for 24 months, 2 for 36 months, and 5 for 48 months.

Use of Psychological and Medical Services

Of the 313 subjects, medical file records were available on 289 subjects.

The 289 inmates used the following psychological and medical services. On admission, 144 (49.8%) saw the psychologist for a screening assessment. Some were also seen in follow-up by a psychologist so, in total, 207 (71.6%) were seen at least once by a psychologist. On admission, the physician saw 79 inmates (27.3%) for an assessment, primarily for drug or alcohol problems.

After entry, 129 inmates (44.6%) saw one of the psychologists for follow-up treatment and ongoing assessment. This was for a total of 407 visits, for an average of 1.4 visits for the total sample, and for an average of 3.2 visits for those seeing a psychologist. Of those seeing a psychologist: 57 went 1 time, 23 went 2 times, 20 went 3 times, 7 went 4 times, 15 went 5 - 9 times, 2 went 10 - 14 times, 3 went 15 - 19 times, and 2 went 20 - 25 times.

After entry 141 inmates (48.8%) saw the physician for follow-up treatment and ongoing assessment of their medical condition. This was for a total of 507 visits, for an average 1.7 visits for the sample, and for an average of 3.6 visits for those seeing the

physician. For 89 inmates, a nurse made 266 phone calls to the physician (on-call) for a request for treatment, primarily for a drug renewal. For the sample, this was an average of .9 calls per person, and an average of 3.0 calls for those needing this intervention.

The psychiatrists who came in to the jail saw a total of 28 inmates (9.7%) for a total of 78 visits: 13 persons for 1 visit, 5 persons for 2 visits, 1 person for 3 visits, 2 persons for 4 visits, 4 persons for 5 visits, 2 persons for 7 visits, and 1 person for 10 visits.

The dentist saw 41 inmates for a total of 93 visits.

Institutional Information

The data on the inmates' performances while on remand were collected from the inmates' institutional files for 298 inmates. As noted in the previous section these data consisted of identifying charges laid in accordance with the CCR&R as well as clearly identifiable informal disciplinary actions. Of the formal actions taken, the total number of charges, the outcomes (i.e., guilt) and the number of segregation days given to be served as punishment is noted below. The number of informal lock-ups as disciplinary action and the number of days spent locked-down in their cell was analyzed.

There were a total of 25 inmates (8.3%), 12 with multiple charges each, charged with a total of 46 offences within the CCR&R. In this group 13 were charged 1 time, 8 were charged 2 times, 2 were charged 3 times, 1 was charged 4 times, and 1 was charged 7 times. In 3 cases a single charge was unable to be proceeded with due to the person being released. There were 40 convictions given to 22 persons. Of those convicted only 17 were given time to be served in segregation. Others received a reprimand. There were a total of 250 days given in segregation, for an average of .8 days per person in the sample, and an average of 14.7 days for the 17 persons. The frequency counts for the individual offences are shown in the table below.

Table 7.08
Charges and Outcomes of Institutional Offences

Regulation	Charges		Convictions		Sentence	
	persons	total	persons	total	persons	days total
CCR&R 1	5	6	4	5	4	45
CCR&R 2	0	0	0	0	0	00
CCR&R 3	6	7	4	5	3	45
CCR&R 4	0	0	0	0	0	00
CCR&R 5	9	10	8	9	7	50
CCR&R 6	1	2	1	2	1	17
CCR&R 7	5	7	4	5	3	32
CCR&R 8	0	0	0	0	0	00
CCR&R 9	4	4	4	4	4	20
CCR&R 10	3	3	3	3	3	21
CCR&R 11	0	0	0	0	0	00
CCR&R 12	7	7	7	7	4	20
Total	40	46	35	40	29	250
Total # persons	25		22		17	

There were 32 persons locked-down in their cell to maintain the good order of the institution. This occurred on 68 occasions for an average of .23 times per person during their stay on remand. This was an average of 2.1 times per person locked-down. In this group 16 were locked-down 1 time, 7 were locked-down 2 times, 3 were locked-down 3 times, 3 were locked-down 4 times, 1 was locked-down 5 times, and 2 were locked-down 6 times. These lock-downs lead to a total of 85 days of time for the 32 inmates being locked in their cells, for an average of 2.7 days per inmate. In this group 15 were locked-down for 1 day, 7 for 2 days, 2 for 3 days, 2 for 4 days, 2 for 6 days, 2 for 7 days, and 2 for 8 days.

Epidemiological Characteristics

Primary Diagnosis

The Diagnostic Interview Schedule (DIS) was used with 104 subjects: 33.2% of the total sample. Identification of mental illness within the total sample is as follows.

Table 7.09 indicates the categorization of the sample, by the DIS, into one of ten categories of Axis I or Axis II disorders excluding alcohol or drug disorders. This is the primary diagnosis and they are lifetime prevalence rates of mental illness. The percentages represent the proportion of primary diagnoses within the total sample. Therefore, 209 (66.8%) were not given a diagnosis. Of those given a DIS, a further 8 subjects (2.6% of the total sample) were not given an Axis I or II diagnosis .[11]Twenty five subjects (8.0%) were diagnosed as a having psychotic disorder: 5.8% schizophrenia and 2.3% schizoaffective. Forty eight subjects (15.3%) were diagnosed as having an affective disorder: 6.1% bipolar and 9.3% major depression. Six (1.9%) were diagnosed as having an anxiety disorder. One (0.3%) was diagnosed as having mental retardation. One (0.3%) was diagnosed as having an organic mental disorder. Fifteen (4.8%) were diagnosed as having an antisocial personality disorder, without having an Axis I disorder. The lifetime prevalence rates for both the primary and multiple diagnoses are shown in the table below.

[11] There were 2 subjects given the single diagnosis of a drug problem, and 1 subject given the single diagnosis of an alcohol problem.

Table 7.09
Lifetime prevalence of mental illness

	Primary	Multiple
No diagnosis	66.8%	66.8%
Psychotic Disorders	8.0%	8.0%
Schizophrenia	(5.8%)	(5.8%)
Schizoaffective	(2.3%)	(2.3%)
Affective Disorders	15.3%	15.3%
Bipolar	(6.1%)	(6.1%)
Major depression	(9.3%)	(9.3%)
Organic Mental Disorders	0.3%	0.6%
Mental Retardation	0.3%	0.3%
Anxiety Disorders	1.9%	8.3%
Alcohol Disorders	-	19.0%
Drug Disorders	-	16.0%
Antisocial P.D.	4.8%	20.8%
No Axis I or II	2.6%	2.6%

Multiple Diagnoses

Table 7.09 above shows the multiple diagnoses for the sample as identified by the DIS [12]. The increases in the prevalence rates results from persons having an Axis I or II disorder other than the psychotic and affective disorders. The prevalence rates for psychotic and affective disorders remain the same. There were 26 subjects (8.3%) diagnosed as having an anxiety disorder. There was a total of two (0.6%) given a diagnosis of organic mental disorder. Sixty five (20.8%) were given diagnosis of an antisocial personality disorder. Sixty (19.2%) were identified as having an alcohol substance use or dependency disorder. Fifty four (17.3%) were identified as having other types of substance use disorders (i.e., a drug disorder).

[12] There were 9 subjects diagnosed as having an affective disorder, bipolar or depression, for whom other diagnostic information was not available. There were 6 subjects diagnosed as having a schizophrenic disorder for whom other diagnostic information was not available. There was one subject diagnosed as an anxiety disorder and one subject given a diagnosis of mental retardation for whom additional information was not collected. This was due to them not completing the DIS or they were too disordered to complete the DIS. Therefore multiple and cross diagnoses were not available for these subjects.

These rates are the proportion of the sample with specific disorders identified by the DIS. It is important to note that, especially for the antisocial personality disorder and the alcohol and drug disorders, this does not represent the actual prevalence rate, but the identified prevalence rate. It is suspected, from other data, that the alcohol and drug disorder prevalence rates are higher.

Cross diagnoses using the DIS

Many persons had multiple disorders -- some had a major mental illness plus an alcohol or drug disorder and/or antisocial personality disorder. To identify the relationships among diagnoses, cross-diagnoses were made on those who completed the DIS.

Tables 7.10 to 7.12 indicate the crossing of major mental illness diagnoses (schizophrenia and affective disorders) with the diagnosis of an alcohol disorder, drug disorder, or antisocial personality disorder (APD). The proportional distribution of alcohol problems, drug problems, and antisocial personalities was not significantly different across the categories of mental health status.

Table 7.10
Cross diagnoses of Alcohol disorder with other diagnoses

	NOT MMI	MMI	
		Schizophrenic	Affective Disorder
Not alcohol	11	10	13
Alcohol Disorder	20	15	34

Chi square = 1.216, df = 2, .2< p <.3

Table 7.11
Cross diagnoses of Drug disorder with other diagnoses

	NOT MMI	MMI	
		Schizophrenic	Affective Disorder
Not drug	12	11	16
Drug Disorder	19	13	31

Chi square = 0.933, df = 2, .5< p

Table 7.12
Cross diagnoses of Antisocial P. D. with other diagnoses

	NOT MMI	MMI	
		Schizophrenic	Affective Disorder
Not APD	10	6	12
APD	21	18	36

Chi square = 0.576, df = 2, .5< p

Table 7.13 shows the proportion of alcohol problem diagnoses of those diagnosed as antisocial personality disorders. Table 7.14 does the same for drug disorders. The distribution of alcohol and drug problems was significantly different within the antisocial personality disorders. In this group, those with an antisocial personality disorder had a significantly higher proportion of those with drug and alcohol problems.

Table 7.13
Cross diagnoses of APD with Alcohol Disorder

	Not APD	APD
Not Alcohol	19	15
Alcohol Disorder	9	59

Chi square = 20.8, df = 1, p <.0005

Table 7.14
Cross diagnoses of APD with Drug Disorder

	Not APD	APD
Not Drug	20	19
Drug Disorder	8	55

Chi square = 18.031, df = 1, p <.0005

Table 7.15 shows those diagnosed as major mental illness (schizophrenia or affective disorder) or not MMI crossed by an antisocial personality disorder, and crossed by an alcohol disorder. There was a significant difference in the proportional distribution of alcohol problems and antisocial personalities within the categories of mental health status. A closer look at this in Tables 6.18 to 6.20, indicates that this significant difference was found in the NOT MMI group and the affective disordered group, but not in the schizophrenic group. In the two former groups there was a significantly higher proportion than expected of those diagnosed with both an alcohol problem and an antisocial personality. In the schizophrenic group, even though there are marked differences in the cell sizes, there was not a significant difference in the proportional distribution of alcohol problems and antisocial personalities.

Table 7.15
Cross diagnoses of Major Mental Illness
with APD and Alcohol

		Not Alcohol	Alcohol
NOT MMI	Not APD	9	1
	APD	2	19
Schizophrenia	Not APD	4	2
	APD	6	12
Affective Disorder	Not APD	6	6
	APD	7	28

Chi square = 40.67, df = 2, p = 0.0

Table 7.16
Cross diagnoses of NOT MMI with APD and Alcohol

NOT MMI	Not APD	APD
Not Alcohol	9	1
Alcohol Disorder	2	19

Chi square = 19.56, df = 1, p = 0.0

Table 7.17
Cross diagnoses of Schizophrenia with APD and Alcohol

Schizophrenia	Not APD	APD
Not Alcohol	4	2
Alcohol Disorder	6	12

Chi square = 2.06, df = 1, .2< p <.1

Table 7.18
Cross diagnoses of Affective Disordered with APD and Alcohol

Affective Disorder	Not APD	APD
Not Alcohol	6	6
Alcohol Disorder	7	28

Chi square = 4.09, df = 1, .05< p <.02

Comparison of Mentally-ill to Non-mentally-ill Inmates

The results in this section pertain to comparing mentally-ill inmates to non mentally-ill inmates on data measuring their prior criminal history, current criminal status, criminal outcomes, use of medical and mental health services, and institutional performance. The groups are defined as no major mental illness ("NOT MMI") and major mental illness (i.e., schizophrenia and affective disordered) (MMI) through the procedure described in the Method chapter.

Also, since there was many comparisons, the p-values needed to be corrected for using multiple t-tests. A two-tailed test with a p-value of $p = 0.05$ was used as the cutoff point for level of significance. This was corrected for the number of tests used in the grouping of comparisons. The difference between groups throughout the data is examined by Hotellings T^2within families of comparisons (i.e., groups of comparisons).

Comparison of Criminal History

This section compared the inmates with major mental illness with those without a major mental illness on data that measures their past criminal history, specifically, their involvement with, or entry into, the criminal justice system, and the outcomes of that involvement.

The following Table 7.19 shows the number of previous criminal justice system entries. The mentally-ill inmates had significantly more entries into the criminal justice system than the NOT MMI group. Entries for the purpose of remanding the person to await trial were significantly different between groups. The MMI group had approximately 1.5 times more remand entries than the NOT MMI group. However, the number of entries for sentence (i.e., enter into jail to serve sentence) were not significantly different.

Table 7.19
Comparison of Groups on Criminal History: Entries

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# of entries	5.15	5.54	7.08	8.42	311	2.29	.0227
# remand entries	2.36	3.21	3.48	4.69	311	2.32	.0212
# jail entries	1.11	1.58	1.48	2.09	311	1.62	.1062

Correction two-tailed p = .05, 2 independent tests, cut-off p = .025; Hotellings T Square = 5.5692, F = 1.84, p = .1390

Their criminal histories indicate that the MMI group had more charges than the NOT MMI group (Table 7.20). Although not a significant difference (p = .0761), the MMI group had approximately 30% more charges than the NOT MMI group. There was a significant difference between the groups over all the types of charges (Hotelling T Square = 31.99, p = .0082). However, a closer analysis of the data indicates that this difference was simply found in the number of minor theft charges (p = .0002). The MMI group were charged with significantly more minor theft offences than the NOT MMI group. There were other interesting differences between groups that approached significance. The MMI group were charged with 76% more breaches (p = .0236) and more "other" offences (p = .0355) than the NOT MMI group.

In terms of the seriousness of their charges, although there was a significant difference between groups over all categories of seriousness (Hotelling T Square = 16.20, p = .0035), the MMI group were not charged with more major or serious offences than the NOT MMI group. In this sense, they were not more dangerous. The MMI group were charged with slightly more moderate offences than the NOT MMI group, but not significantly so. However, the MMI group were charged with significantly more offences of minor seriousness than the NOT MMI group.

In summary, the MMI group had slightly more charges of offences in their criminal histories than the NOT MMI group. This difference is accounted for by the MMI group having significantly more minor charges (specifically minor theft charges) than the NOT MMI group.

Table 7.20
Comparison of Groups on Criminal History: Charges

Variable	NOT MMI		MMI				
	mean	s.d.	mean	s.d.	df	t	p
# charges	7.85	8.73	10.15	12.18	311	1.78	.0761
1. murder	0.04	0.27	0.04	0.26	311	0.02	.9873
2. sexual aslt.	0.05	0.32	0.14	0.42	311	1.80	.0731
3. assaults	0.54	1.20	0.56	1.51	311	0.12	.9067
4. robbery	0.44	1.09	0.34	0.75	311	0.70	.4862
5. weapons	0.29	0.72	0.27	0.65	311	0.19	.8510
6. property	0.32	0.76	0.44	0.83	311	1.14	.2568
7. public order	0.23	0.62	0.14	0.45	311	1.23	.2213
8. major theft	2.20	3.05	2.52	3.56	311	0.77	.4442
9. minor theft	1.23	2.12	2.97	6.19	311	3.71	.0002
10. drug	0.72	1.54	0.52	1.34	311	0.98	.3285
11. breaches	0.41	0.79	0.70	1.33	311	2.27	.0236
12. mva	0.60	1.46	0.41	1.19	311	1.03	.3032
13. other	0.90	0.34	0.27	1.22	311	2.11	.0355
14. court/escape	0.70	1.14	0.82	1.39	311	0.78	.4332

Correction two-tailed p = .05, 13 tests, cut-off p = .004
Hotelling T Square 31.99, F = 2.19, dF = 14,290, p = .0082

Table 7.20 continued.
Comparison of Groups on Criminal History: Charges

Variable	NOT MMI		MMI				
	mean	s.d.	mean	s.d.	df	t	p
1. major	0.06	0.30	0.08	0.32	311	0.48	.6331
2. serious	0.29	0.91	0.18	0.45	311	1.03	.3045
3. moderate	4.90	5.73	5.08	6.25	311	0.23	.8201
4. minor	2.60	3.72	4.81	8.00	311	3.27	.0012

Correction two-tailed p = .05, 3 tests, cut-off p = .017
Hotelling T Square 16.20, F = 4.01, dF = 4,308, p = .0035

One consequence of these entries on the above charges is to serve time in jail: either under a remand order to await trial and sentencing, or to serve a sentence. The total of these two types of serving time in jail simply reflect time served in provincial institutions. The mentally-ill group served more time in jail on remand, approximately 67% more time, than the NOT MMI group but this difference only approached significance (p = .0483) (see Table 7.21). The MMI group spent more time under sentence, but not significantly more than the NOT MMI group. Consequently, they spent more time in provincial custody facilities than the NOT MMI group, but this was not a significant difference. There was not a significant difference between groups over all the variables measuring the amount of time they spent in provincial jails in their criminal histories (Hotelling T Square=3.98, p = .1392).

Table 7.21
Comparison of Groups on Criminal History: Days in jail

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# remand days	63.8	114.3	101.7	210.7	311	1.98	.0483
# sentence days	201.4	321.1	235.2	364.1	311	0.76	.4460
# custody days	265.3	395.8	336.9	489.7	311	1.28	.2025

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square 3.98, F = 1.98, dF = 2,310, p = .1392

Another way to examine the consequences of these contacts with the criminal justice system is to look at the number of convictions, which is directly reflected in the occurrence of a sentence. Sentences are consequences for convictions on the charges that brought them into the system. The following table compares groups on the total number of sentences and the types of sentences given.

The mentally-ill group received significantly more sentences than the non-mentally ill group (Table 7.22). This difference was a result of the cummulative effects of differences, albeit not significant differences, in the numbers and types of sentences each group received. The mentally ill received, on average, more jail (43% more), penitentiary (151% more), and probation (36% more) sentences than did the non-mentally-ill inmates.

Table 7.22
Comparison of Groups on Criminal History: Sentences

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# sentences	4.78	5.82	6.63	8.08	311	2.16	.0299
Correction two-tailed p = .05, 1 test, cut-off p = .05							
# jail sentence	3.52	4.68	5.05	6.89	311	2.18	.0299
# pen. sentence	0.09	0.37	0.23	0.84	311	2.04	.0417
# prob. sentence	1.08	1.57	1.47	2.19	311	1.71	.0890
Correction two-tailed p = .05, 3 tests, cut-off p = .017							
Hotelling T square = 9.35, F = 2.31, p = .0574							

When they were sentenced they were given a specific maximum length of sentence, both in the number of days to be in jail and the number of months to be on probation. The cumulative totals for both variables are shown below (Table 7.23). The mentally-ill group received longer cumulative sentences than the NOT MMI group, but this was not a significant difference. However, they did accumulate significantly more months of probation than the NOT MMI group.

Table 7.23
Comparison of Groups on Criminal History: Sentences

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# days sentence	587.1	1013	793.6	1124	311	1.49	.1384
# months prob.	17.0	26.8	37.2	120.8	311	2.40	.0169
Correction two-tailed p = .05, 2 tests, cut-off p = .025							
Hotelling T Square = 5.15, F = 2.57, p = 0.0785							

Comparison of Current Criminal Status

This section compares the MMI group to the NOT MMI group on criminal characteristics that brought them into the study: the type and number of charges.

There was no significant difference between groups on the number of charges they entered with (Table 7.24). They did not differ in the number of additional charges laid after entry and, consequently, did not differ in the number of total charges they had through this criminal justice system entry. In fact, they were remarkably similar.

Table 7.24
Comparison of Groups on Current Criminal Status: Numbers of Charges

Variable	NOT MMI		MMI		df	t	p
	mean	s.d.	mean	s.d.			
1. # on entry	1.22	0.49	1.21	0.44	311	0.24	.8108
2. # additional	1.24	1.77	1.25	1.63	311	0.04	.9688
3. # total	2.46	1.85	2.45	1.67	311	0.03	.9794

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square = 0.06, F = 0.03, p = .9710

There was no significant difference between groups in the average number of different types of offences they were charged with (Table 7.25). However, the MMI group did twice as many minor thefts, on average, than the NOT MMI group, which approached a significant difference. Also, there were no differences between groups on the grouping of these charges by seriousness of offences.

Table 7.25
Comparison of Groups on Current Criminal Status:
Types of Charges

Types of Charges	NOT MMI		MMI		df	t	p
	mean	s.d.	mean	s.d.			
1. murder	0.03	0.18	0.05	0.23	311	0.83	.4047
2. sexual asslt.	0.05	0.31	0.11	0.54	311	1.18	.2396
3. assaults	0.25	0.53	0.21	0.64	311	0.60	.5512
4. robbery	0.16	0.43	0.18	0.42	311	0.27	.7862
5. weapons	0.08	0.31	0.08	0.28	311	0.18	.8582
6. property	0.13	0.51	0.07	0.25	311	0.91	.3628
7. public order	0.03	0.16	0.03	0.16	311	0.11	.9099
8. major theft	0.71	0.98	0.89	1.06	311	1.33	.1850
9. minor theft	0.16	0.44	0.30	0.74	311	1.98	.0491
10. drug	0.26	0.72	0.15	0.43	311	1.24	.2161
11. breaches	0.20	0.47	0.11	0.31	311	1.61	.1086
12. mva	0.18	0.62	0.09	0.38	311	1.50	.1357
13. other	0.05	0.22	0.02	0.16	311	0.82	.4149
14. court/escape	0.17	0.44	0.14	0.41	311	0.04	.9683
Correction two-tailed p = .05, 13 tests, cut-off p = .0037							
Hotelling T Square = 17.33, F = 1.19, p = 0.2850							
1. major	0.05	0.26	0.08	0.39	311	0.70	.4837
2. serious	0.25	0.74	0.16	0.58	311	0.91	.3650
3. moderate	1.55	1.37	1.64	1.34	311	0.54	.5897
4. minor	0.61	0.90	0.56	0.88	311	0.43	.6709
Correction two-tailed p = .05, 3 tests, cut-off p = .017							
Hotelling T Square = 2.36, F = 0.58, p = 0.6741							

Comparison of Criminal Outcomes

This section analyses the results of the entry into the criminal justice system. This includes looking at the amount of time spent on remand and the amount of time spent under sentence. It looks at the results of the remand: how did the remand end? It looks at the outcomes of the charges in terms of the number of convictions: the number of sentences given and of what types. It looks at the total number of days given in sentencing and the total number of months of probation given under sentence.

The mentally-ill group spent significantly more time on remand than the non-mentally-ill group (6.28). In fact, they spent nearly twice as much time on remand. As well, the MMI group served significantly more time on a jail sentence that was a direct result of their remand than the NOT MMI group: approximately 50% more time. Consequently, the mentally-ill group spent significantly more total custody time in jail than the non-mentally-ill group.

Table 7.26
Comparison of Groups on Criminal Outcomes:
Custody time on remand

Variables	NOT MMI		MMI		df	t	p
	mean	s.d.	mean	s.d.			
remand days	30.2	49.8	53.1	62.2	311	3.23	.0014
sentence days	41.5	71.5	66.2	98.0	311	2.36	.0199
total days	71.7	91.6	119.3	114.1	311	3.66	.0003

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square = 15.11, F = 7.53, p = 0.0006

The major consequence of these charges is a conviction found in any sentences that the person received. The following examines the total number of sentences received and the type of sentence received (Table 7.27). The two groups were not different in the total number of sentences received. Specifically, they did not differ in the number of jail sentences nor probation sentences they received. However, the mentally-ill group received slighty more penitentiary sentences than the non-mentally-ill group -- this difference only approached significance.

Table 7.27
Comparison of Groups on Criminal Outcomes:
Convictions - number of sentences given

Variables	NOT MMI		MMI		df	t	p
	mean	s.d.	mean	s.d.			
# jail sentences	1.00	1.27	1.01	1.29	311	0.11	.9158
# pen. sentences	0.05	0.27	0.15	0.43	311	2.21	.0282
# prob. sent.	0.19	0.46	0.23	0.49	311	0.66	.5108
# total sent.	1.18	1.31	1.38	1.29	311	1.17	.2425

Correction two-tailed p = .05, 3 tests, cut-off p = .017
Hotelling T Square = 8.33, F = 2.06, p = 0.0857

Table 7.28 displays the average number of cumulative sentence days to be served in jail and the average number of cumulative months to be served on probation. This was calculated by summing the number of days to be served in jail or on probation for each sentence that was given to an inmate. Although the mentally-ill inmates received twice as many days to be served in jail than the non-mentally-ill inmates, this difference only approached significance. There was no differences in the cumulative total of probation months to be served.

Table 7.28
Comparison of Groups on Criminal Outcomes:
Sentence outcomes - length of sentences

Variables	NOT MMI		MMI		df	t	p
	mean	s.d.	mean	s.d.			
# days sent.	279.1	1041	543.2	1373	311	1.75	.0805
# months prob.	3.59	9.27	4.52	9.58	311	0.74	.4574

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square = 3.74, F = 1.86, p = 0.1568

Comparison of Use of Medical and Psychological Services

This section of analysis compares the groups on the amount of medical and mental health staff services that were used. The first table (Table 7.29) indicates the total amount of services used as measured by the number of visits an inmate made to see a professional. The inmates with major mental illness used significantly more psychological services - 400% more - than the not MMI group. The MMI group used significantly more medical services - 275% more - than the not MMI group. Although visits to the psychiatrist were rare, the MMI group used significantly more psychiatric services. In total, the MMI group used significantly more mental health services - twice as much - than the NOT MMI group. Also, the MMI group needed significantly more emergency phone calls for medications from the nurses to the physicians. Overall, the MMI group had signficantly more cumulative mental health visits, that is either to a psychologist or psychiatrist, than did the non-mentally-ill inmate.

Table 7.29
Comparison of Groups on
Utilization of Psychological and Medical Services

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
Psychlg. visit	.82	2.33	3.28	4.34	287	6.06	.0000
Physician visit	1.24	2.74	3.39	4.60	287	4.75	.0000
Psychiat. visit	.06	.46	.94	1.97	287	6.16	.0000
Nurse phone call	.65	1.68	1.77	2.84	287	4.00	.0001
Men.Hlth. visit	.71	2.45	3.84	4.74	287	7.20	.0000

Correction two-tailed p = .0[illegible], 4 tests, cut-off p = .0125
Hotelling T Square = 2.36, F = 0.58, p = 0.6741

Since the group with major mental illness spent more time on remand, the differences between the two groups in the amount of psychological and medical services used could be an artifact of the simple fact that the MMI group stayed on remand longer. The amount of the above services was, therefore, recalculated on a per day basis: simply done by dividing the amount of service (i.e., number of visits) by the number of days served on remand. The findings still hold (Table 7.30).

The inmates with major mental illness used significantly more psychological, medical, psychiatric, and total mental health services than the NOT MMI group of inmates. However, the previously found difference in the amount of emergency phone calls made by the nurse to the physicians did not hold. This was perhaps due to the fact that emergency phone calls take place in the beginning of a remand sentence, perhaps before the physician has had a chance to see the inmate, and, therefore, averaging this variable does not reflect the nature of this variable - perhaps this variable should measure whether or not an emergency phone call was needed.

Table 7.30
Comparison of Groups on Utilization of Psychological and Medical Services: Average per day on remand

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
Psychlg. visit	.05	.13	.32	.61	287	3.36	.0009
Physician visit	.04	.08	.19	.14	287	3.41	.0007
Psychiat. visit	.003	.03	.04	.08	287	5.12	.0000
Nurse phone call	.05	.16	.05	.11	287	0.37	.7119
Men.Hlth. visit	.02	.09	.13	.18	287	6.79	.0000

Correction two-tailed p = .05, 4 tests, cut-off p = .0125
Hotelling T Square = 52.72, F = 10.40, p = 0.0000

Comparison of Institutional Information

Both groups were compared on their institutional performance. Since the cell counts of the 12 charges were small, only the total number of charges were analyzed. Also, the outcomes in terms of disciplinary action were analyzed: the number of segregation days to be served. The number of informal lock-ups as disciplinary action and the number of days spent locked-down in their cells was analyzed.

Overall, the mentally ill received significantly more institutional discipline and consequences than did the non-mentally-ill inmates (Hotelling T Square = 27.13, p = .0000). The mentally-ill inmates received just over twice as many formal institutional charges than the non-mentally-ill group. although this difference only approached significance (Table 7.31). However, they did receive significantly more days to be served in segregation - nearly 4 times as many - as a result of the convictions from these charges than the non-mentally-ill inmates. The mentally ill also received significantly more informal prison punishments: they were locked-up in their cells nearly 6 times more frequently than the non mentally ill. As a result they served significantly more (4.5 times) days being locked-up in their cells than their non-mentally-ill counterparts.

Table 7.31
Comparison of Groups on Institutional Performance

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
Total # charges	.12	.612	.28	.709	296	1.85	.0657
Total # days	.53	3.237	1.90	6.703	296	2.32	.0208
Total # lock-ups	.11	.469	.63	1.424	296	4.78	.0000
Total # lock-up days	.16	.810	.72	1.726	296	3.76	.0002

Correction two-tailed p = .05, 4 tests, cut-off p = .0125
Hotelling T Square = 27.13, F = 6.71, p = 0.0000

These statistics were also calculated on an average per day basis. Since the mentally-ill inmates stayed twice as long on remand than the other inmates, the above differences could be an artifact of the differences in the length of time served on remand. Overall, the mentally-ill inmates received more institutional discipline and punishment, on a per day basis, than the non-mentally ill (Hotellin T Square = 11.70, p = .0224). Although the direction of the differences still holds, the individual variable differences are not as statistically robust (cf. Table 7.31 and 7.34). The mentally-ill inmates received more formal institutional charges and received more time to be served in segregation, although the differences only approach significance (Table 7.32). The mentally-ill inmates received significantly more informal punishments (lock-ups and days locked-up) on a per day basis than the non-mentally-ill inmates. In examining the cumulative effect of these variables, by averaging the differences, the mentally-ill inmates received significantly more jail disciplines and sanctions than did the non-mentally-ill inmates.

Table 7.32
Comparison of Groups on Institutional Performance:
Average per day

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
Total # charges	.002	.011	.005	.016	296	1.91	.0565
Total # days	.010	.062	.029	.103	296	1.84	.0674
Total # lock-ups	.003	.015	.024	.107	296	2.94	.0035
Total # lock-up days	.003	.016	.028	.124	296	2.93	.0037

Correction two-tailed p = .05, 4 tests, cut-off p = .0125
Hotelling T Square = 11.70, F = 2.90, p = 0.0224

CHAPTER VIII

RESULTS STUDY 2

Outline

This chapter, on the results of Study 2, is presented in the following sections. First, a description of the sample on demographic, medical, criminal history, current criminal status, criminal outcomes, and institutional information variables is given. The second section presents the epidemiological results. The third section presents the results of the comparison of mentally ill to non-mentally ill on the demographic, criminal, and outcome variables of interest

Description of Sample Characteristics

Demographic characteristics

The 97 subjects in Study 2 were all male. The average age was 28.8 years and the median age was 27 years. The youngest was 17 and the oldest was 55 years old.

In terms of their marital status, 76% of the group were single. Five persons were married, 5 separated, and 9 divorced. Sixty percent did not have any children.

On entry, as rated by the nurses, 39.5% had some sort of drug problem for an average of at least 27 months. On entry, 43% reported having an alcohol problem for an average of at least 33 months. Thirty one percent reported having attempted suicide in the past. Of those seeing the psychologist on entry, 52% were identified as having moderate to severe psychopathological symptoms.

Criminal History

Seventy eight subjects (80%) had had previous contact with the B.C. correctional system[1]. This contact, termed entries, could consist of been charged in Court, remanded to await trial or sentencing, entering to serve a sentence, appearing in court for bail, or simply appearing in court to answer charges .[2]These 78 persons had entered the correctional system a total of 524 times for an average of 6.7 entries per person. Most of these entries were for a remand in custody to await trial (47%); entry into jail to serve a sentence (20%) and into court to be granted bail (20%), put on probation (12%) and to appear in court (1%).

The most frequent outcome of the 244 remands was to serve a jail sentence (34%). To be bailed out of jail (i.e., bail release) was also fairly frequent (24%). To be released at court without bail or without any further action occurred in 22% of the remands, while simply having the remand end without further action and be released directly from jail occurred in 8% of the remands.

Of the 78 subjects previously entering the criminal justice system, 68 subjects spent time in B.C. provincial jails. These subjects had spent a total of 28,592 days in custody, for an average of 294.8 days for the sample, and 420.5 days in custody for the 68 subjects. Approximately three-quarters of the total custody days were spent under sentence by 56 persons on average for 379 days. Slightly more subjects (63),

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[1] As was the case in Study 1, the criminal history information for each subject was coded from their B.C. Corrections casefile information. This information pertains only to B.C. correctional information and does not include criminal charges and convictions that took place outside of B.C., except when a prisoner was transferred to B.C.

[2] An entry was only counted as "one" if the person entered Court to answer charges and then was directly sent to jail for a remand period that was then followed by a custodial sentence period. Entries simply reflected the type and number of entries into the correctional system.

approximately two-thirds of the total sample, had spent time in jail under a remand order for an average of 117 days in remanded custody.

Thirteen subjects had been sent to a penitentiary for a total of 14 times for either a penitentiary sentence or a return to a penitentiary for a revocation of parole.

Eleven persons had escaped from a B.C. provincial jail in the past, for a total of 17 times.

Five persons, approximately 5% of the total sample, had previously entered into the mental health system after a criminal justice system entry. Three had been transferred once and two had been transferred twice.

The 78 persons had been previously charged with 862 offences for an average of 11 charges per person (Table 8.01) [3,4] Murder charges represented only 0.6% of the total number of charges. The most frequent types of charges were for major theft (29%), minor theft (20%) (e.g., theft under $200, food fraud, false pretences), court charges (9%) (primarily "failure to appear" charges), and drug offences (8%). Six percent of the sample had motor vehicle charges, 6% had breach charges, 5% had property charges, and 3% had public order or nuisance offence charges.

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[3] The total number of charges was based on the charges identified for each entry.

[4] See footnote number 10 in the previous chapter.

Table 8.01
Criminal history: frequency of charges by offence type

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	20
Murder	3	1	-														
Sex assault	7	-	-	1	-												
Assault	18	4	1	2	-												
Robbery	14	1	2	1	-												
Weapons	8	6	1	-													
Property	14	5	2	2	1	-											
Public order	14	2	2	1	-												
Major theft	13	7	4	3	7	3	7	3	1	1	-	2	-	-	1	1	-
Minor theft	4	8	10	8	5	2	-	-	1	1	-	-	1	-	-	-	1
Drug	19	3	-	-	4	1	-	-	-	-	2	-					
Breaches	19	8	5	-													
MVA	11	2	1	1	3	1	2	-									
Other	11	1	-														
Court	16	11	2	1	3	1	1	-									

These offences were also categorized by seriousness of the offence. There were 8 major offences representing 0.9% of the total number of offences. There were 32 serious offences (3.7%), 492 moderate offences (57.1%), and 330 minor offences (38.3%). Seven subjects had been charged with a major offence, 23 with severe offences, 69 with moderate offences, and 58 with minor offences.

Table 8.02
Criminal history: frequency of charges by offence type

Variable	persons	total charges
Major	7	8
Severe	23	32
Moderate	69	492
Minor	58	330

Sixty five subjects had received 550 convictions for a total of 616 sentences. Some of these were for multiple sentences (e.g., both jail and probation). Of these sentences most were for provincial jail sentences (68%), in which 55 subjects received

417 jail sentences. One hundred twenty six (20%) of the sentences were probation sentences received by 49 subjects. Eighteen subjects served 37 jail sentences as a result of defaulting on a fine. Twenty received 27 community work service sentences, which were often given in conjunction with probation sentences. Only 8 subjects received 9 penitentiary sentences (1.5%). [5]

The total number of sentenced days given for the above convictions was 79,929 for an average of 1378 days for the 58 persons given custody sentences. Ten subjects received cumulative sentences for less than 90 days. Six received 90 to 182 days, none received 183 to 364 days, and 11 received 1 year to 2 years less a day in cumulative sentenced days. Fifteen received 2 to 5 years less one day (24%), 12 received 5 to 10 years, and 4 received 10+ years in sentenced days. There were 48 subjects given a total of 1959 months of probation for an average of 41 months of probation. Of this group, the most frequent cumulative probationary time was for 1 to less than 2 years (18 subjects), then 2 to less than 3 years (5 subjects), and 3 to less than 4 years (8 subjects). In addition, one subject had been placed on indefinite probation.

Current Criminal Status

The 97 subjects were charged with a total of 142 offences on entry to VPSC. Also, while awaiting trial, an additional 155 new charges were laid. Thus, the 97 subjects were charged with a total of 297 offences for an average of 3.1 offences per person.

Major theft offences was the most frequent type of charge (26%); nearly one-half of the sample (44) had been charged with this. Drugs (34) for 22 persons, breaches

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[5] The summation of the frequency of the different types of sentences is greater than the total number of convictions because occasionally a conviction involved two sentences, such as jail sentence followed by a probation sentence.

(30) for 25 persons, assaults (29) for 22 persons, and robbery (26) for 24 persons were the next most frequent categories. Five subjects were charged with murder offences representing 5% of the total sample. Only 3 subjects were charged with 3 public order or nuisance offences.

Table 8.03
Criminal charges: frequency of offence type

Variable	1	2	3	4	5	6	7	8	9	10	total	persons
Murder	5	-									5	5
Sex assault	4	-	-	1	-						8	5
Assault	17	3	2	-							29	22
Robbery	22	2	-								26	24
Weapons	14	1	1	-							19	16
Property	9	1	-								11	10
Public order	3	-									3	3
Major theft	22	15	4	1	2	-					78	44
Minor theft	6	2	-								10	8
Drug	16	3	1	1	1	-					34	22
Breaches	21	3	1	-							30	25
MVA	3	1	3	-	1	-					19	8
Other	3	2	-								7	5
Court	11	4	-								19	15

The seriousness of the offences charged against the subjects for the study period was as follows. Eight subjects were charged with 10 major offences, representing 3.4% of the total offences, twenty subjects were charged with 30 serious offences (10.1%), 84 subjects were charged with 198 moderate offences (66.7%), and 39 subjects were charged with 60 minor offences (20%).

For the most part, the sample entered into the criminal justice system only once for the entry charge(s). However, 5 subjects were remanded twice on the entry charge(s) creating a total of 103 remands. Four re-entered for a probation sentence and two for a bail hearing.

Criminal Outcomes

The results of the 103 remands are as follows. Of those released: 4 simply ended, 13 were released at court, and 18 were released on bail. Of those who entered the criminal justice system: 38 persons on 39 remands were followed by a jail sentence (i.e., one person ended a multiple charge remand with 2 jail entries), 13 went to a federal penitentiary on a federal sentence, 5 were placed on probation, and 5 re-entered a federal penitentiary. There were 3 persons who had other outcomes and 1 person on this remand left by entering the mental health system.

In terms of the amount of time spent incarcerated for a remand on these charges the 97 persons spent a total of 7,595 days on remand, for an average of 78.3 days on remand per person. This was constituted by the following: the initial entry at VPSC lead to a total of 6,859 days at VPSC, with an additional 644 days on remand at other institutions, for a total of 7,503 days. Since the person may re-enter on the original charges, there were additional days on remand: 87 at VPSC and 5 at other institutions. This gave a total of 6946 days at VPSC and 649 at other institutions.

Table 8.04
Days spent on remand

	Initial		Additional		Total	
	days	ave.	days	ave.	days	ave.
VPSC	6,859	70.7	87	0.9	6,946	72.6
OTHER	644	6.6	5	0.1	649	6.7
TOTAL	7,503	77.4	92	0.9	7,595	78.3

From the total of 97 subjects, there were 70 persons convicted. They were given a total of 146 sentences. There were 20 persons who were not given a conviction (i.e., the charges were dropped, not proceeded with, or they were found not guilty). Of those

70 persons given a sentence, 54 persons received a cumulative total of 110 jail sentences, 11 received 15 penitentiary sentences, 21 received 21 probation sentences, 4 received 9 default of fine sentences, and 2 received 2 community work service sentences.

Table 8.05
Outcomes of charges: frequency of type of outcomes

Type	1	2	3	4	5	6	7	Persons	Total
Total # sentences	34	14	12	6	1	2	2	70	146
# jail sentences	21	18	10	3	1	1	-	54	110
# pen sentences	9	1	-	1				11	15
# Prob sentences	21	-						21	21
# DWF sentences	1	2	-	1				4	5
# CWS sentences	2	-						2	2
# Other sentences	-							0	0

These sentences resulted in 62 persons being sentenced for a total of 50,517 days and for an average of 520.8 days for the sample. For those 62 persons, they were sentenced for an average of 814.8 days (i.e., nearly 2 1/4 years per person). The median was 72 days. Of those sentenced: 8 received less than 30 days, 5 received 1 month to 59 days, 2 received 2 months to 89 days, 8 received 3 months to 179 days, 9 received 6 months to 1 year less a day, 10 received 1 year to 2 years less a day, 14 received 2 to 5 years, 3 received 5 to 10 years, and 3 received 10+ years of sentence time.

Twenty two persons were given probation sentences for a cumulative total of 108 months: 1 for 1 month, 2 for 9 months, 5 for 12 months, 11 for 24 months, and 3 for 36 months

Use of Psychological and Medical Services

Of the 97 subjects, medical file records were available on 87 subjects.

The 87 inmates used the following psychological and medical services. On admission 45 inmates (51.7%) saw the psychologist for a screening assessment. Also, some were seen in follow-up by a psychologist, therefore, in total 81 inmates (93.1%) were seen at least once by a psychologist. The medical doctor saw 29 inmates (33.3%) for an assessment, primarily for drug or alcohol problems.

After entry 67 inmates (77%) saw one of the psychologists for follow-up treatment and ongoing assessment. This was for a total of 311 visits, for an average of 3.6 visits for the total sample, and for an average of 4.6 visits for those seeing a psychologist. Of those seeing a psychologist: 16 came 1 time, 13 came 2 times, 13 came 3 times, 4 came 4 times, 14 came 5-9 times, 3 came 10-14 times, 2 came 15-19 times, and 1 came 26 times.

After entry, 63 inmates (72.4%) saw the medical doctor for follow-up treatment and ongoing assessment of their medical condition. This was for a total of 373 visits, for an average 4.3 visits for the sample, and for an average of 5.9 visits for those seeing the medical doctor. For 51 inmates, a nurse made 221 phone calls to the doctor (on-call) for a request for treatment, primarily for a drug renewal. For the sample, this was an average of 2.5 calls per person, and an average of 4.3 calls for those needing this intervention.

The psychiatrists who came in to the jail saw a total of 18 inmates (20.7%) for a total of 92 visits: 4 persons for 1 visit, 5 persons for 2 visits, 1 person for 3 visits, 3 persons for 4 visits, 1 person for 5 visits, 1 persons for 7 visits, 1 person for 15 visits, 1 person for 16 visits, and 1 person for 20 visits.

The dentist saw 27 inmates for a total of 76 visits: 8 persons 1 time, 7 persons 2 times, 5 persons 3 times, 1 person 4 times, 4 persons 5 times, 1 person 7 times, 1 person 8 times.

Institutional Information

Institutional file records were found for 85 inmates (87.6%). The data collected consisted of formal charges laid in accordance with the Correctional Centres Rules and Regulations (CCR&R) as well as clearly identifiable informal disciplinary actions. This included the number of formal disciplinary actions taken, the total number of charges, the outcomes (i.e., guilt) and the number of segregation days given to be served as punishment. The number of informal disciplinary lock-ups and the number of days spent locked-down in their cell was computed.

There was a total of 23 inmates (27.1%), 15 with multiple charges each, charged with a total of 54 CCR&R offences. In this group, 8 inmates had 1 charge, 8 had 2 charges, 2 had 3 charges, 3 had 4 charges, 1 had 5 charges, and 1 had 7 charges. In 1 case a single charge was unable to be proceeded with due to the person being released. There were 40 convictions given to 22 persons. Of those convicted of these charges, only 17 were given time to be served in segregation. Others received a reprimand. There was a total of 250 days given in segregation, for an average of .8 days per person in the sample, and an average of 14.7 days for the 17 persons. The frequency counts for the individual offences are shown in the table below.

Table 8.06
Charges and Outcomes of Institutional Offences

Regulation	Charges persons	Charges total	Convictions persons	Convictions total	Sentence days persons	Sentence days total
CCR&R 1	9	10	7	8	7	54
CCR&R 2	0	0	0	0	0	00
CCR&R 3	5	6	5	6	5	49
CCR&R 4	0	0	0	0	0	00
CCR&R 5	9	10	7	8	4	35
CCR&R 6	3	4	2	3	2	20
CCR&R 7	5	7	4	5	3	42
CCR&R 8	0	0	0	0	0	00
CCR&R 9	4	6	4	6	5	54
CCR&R 10	3	3	3	3	2	14
CCR&R 11	1	1	0	0	0	00
CCR&R 12	7	7	7	7	3	13
Total	46	54	39	46	31	281
Total # persons	24		22		18	

There were 32 persons locked-down in their cell to maintain the good order of the institution. This occurred on 68 occasions for an average of .23 times per person during their stay on remand. This was an average of 2.1 times per person locked-down. In this group 16 were locked-down 1 time, 7 were locked-down 2 times, 3 were locked-down 3 times, 3 were locked-down 4 times, 1 was locked-down 5 times, and 2 were locked-down 6 times. These lock-downs lead to a total of 85 days of time for the 32 inmates being locked in their cells, for an average of 2.7 days per inmate. In this group, 15 were locked-down for 1 day, 7 for 2 days, 2 for 3 days, 2 for 4 days, 2 for 6 days, 2 for 7 days, and 2 for 8 days of total time being locked in their cell.

Epidemiological Characteristics

Primary Diagnosis

The Diagnostic Interview Schedule (DIS) was used with all 97 subjects. Identification of mental illness within the total sample is as follows. Table 8.07 indicates the categorization of the sample, by the DIS, into Axis I or Axis II (APSD) disorders including alcohol or drug disorders. This is the primary diagnosis. The percentages represent the proportion of primary diagnoses within the total sample.

Four subjects (4.1%) were diagnosed as not having a mental disorder. Thirteen subjects (13.4%) were diagnosed as schizophrenic or schizo-affective disordered. Seventeen (17.5%) were diagnosed as a bipolar affective disorder. Twenty five (25.8%) were diagnosed as an affective disorder, depression. Twenty one (21.6%) were diagnosed as an antisocial personality disorder as a primary diagnosis (i.e., without having a major Axis I disorder). Seven (7.2%) were diagnosed as having a panic or phobic disorder. Finally, 6 (6.2%) were diagnosed as having a primary drug disorder, three (3.2%) with a primary alcohol disorder, and one (1%) with both a primary alcohol and drug disorder.

Table 8.07
Lifetime prevalence of Mental Illness

	Primary	Multiple
Psychotic Disorders	13.4%	13.4%
Schizophrenia	(9.3%)	(9.3%)
Schizoaffective	(4.1%)	(4.1%)
Affective Disorders	43.3%	43.3%
Bipolar	(17.5%)	(17.5%)
Major Depression	(25.6%)	(25.6%)
Anxiety Disorders	5.2%	27.9%
Alcohol Disorders	3.2%	78.0%
Drug Disorders	6.2%	76.0%
Antisocial P.D.	21.6%	67.0%
None	4.1%	4.1%

Multiple Diagnoses

Table 8.07 above shows the multiple diagnoses for the sample as identified by the DIS. The numbers and percentages for schizophrenic and affective disorders remains the same. The prevalence rate for anxiety disorders is 27.9%. Sixty five subjects (67%) were diagnosed as antisocial personality disorder. Seventy six (78%) were identified as having a substance use, alcohol, disorder. Seventy four (76%) were identified as having a substance use disorder (drug disorder).

Cross diagnoses using the DIS

Many persons had multiple disorders. Most frequently, subjects had a major mental illness plus an alcohol or drug disorder and/or antisocial personality disorder. To identify the relationship of diagnoses, cross-diagnoses were made.

Tables 8.08 to 8.10, below, indicate the crossing of major mental illness diagnoses (schizophrenia and affective disorders) with the diagnosis of an alcohol disorder, drug disorder, and antisocial personality disorder (APD). The proportional

distribution of alcohol disorders, drug disorders, and antisocial personalities was not significantly different across the categories of mental health status.

Table 8.08
Cross diagnoses of Alcohol disorder with other diagnoses

	NOT MMI	MMI	
		Schizophrenic	Affective Disorder
Not alcohol	14	5	16
Alcohol Disorder	26	8	28

Chi square = 0.054, df = 2, p = 0.9735

Table 8.09
Cross diagnoses of Drug disorder with other diagnoses

	NOT MMI	MMI	
		Schizophrenic	Affective Disorder
Not drug	10	5	15
Drug Disorder	30	8	29

Chi square = 1.209, df = 2, p = 0.5462

Table 8.10
Cross diagnoses of Antisocial P. D. with other diagnoses

	NOT MMI	MMI	
		Schizophrenic	Affective Disorder
Not APD	14	7	13
APD	26	6	31

Chi square = 2.603, df = 2, p = 0.2721

Tables 8.11 and 8.12 show the proportion of alcohol and drug problem diagnoses of those diagnosed as antisocial personality disorders. The distribution of alcohol and drug problems was significantly different within the antisocial personality disorders. In

this group those with an antisocial personality disorder had a significantly higher proportion of a drug and alcohol disorders. There was not a proportional difference in the relation of alcohol disorders with drug disorders (Table 8.13).

Table 8.11
Cross diagnoses of APD with Alcohol Disorder

	Not APD	APD
Not Alcohol	19	16
Alcohol Disorder	15	47

Chi square = 8.899, df = 1, p = 0.0029

Table 8.12
Cross diagnoses of APD with Drug Disorder

	Not APD	APD
Not Drug	18	12
Drug Disorder	16	51

Chi square = 11.875, df = 1, p = 0.0006

Table 8.13
Cross diagnoses of Alcohol with Drug Disorder

	Not Alcohol	Alcohol
Not Drug	12	18
Drug Disorder	23	44

Chi square = 0.289, df = 1, p = 0.5909

Table 8.14 shows those diagnosed as major mental illness (schizophrenia or affective disorder), or NOT MMI, crossed by antisocial personality disorder and crossed by alcohol disorder. There was a significant difference in the proportional distribution

of alcohol problems and antisocial personalities within the categories of mental health status. A closer look at this in Tables 7.15 to 7.17, indicates that this significant difference was found in the NOT MMI group, but not in the affective disordered group nor in the schizophrenic group. In the former group there was a significantly higher proportion than expected of those diagnosed with both an alcohol problem and an antisocial personality. In the schizophrenic group, there were no marked differences in the cell sizes. The distribution of alcoholism was similar whether there was an associated antisocial personality disorder or not. Within the affective disordered group (Table 8.17), even though alcohol problems was equally distributed in the non-antisocial group while in the antisocial group there were one-third with no alcohol problem and two-thirds that were alcohol disordered, this was not a significant proportional difference.

Table 8.14
Cross diagnoses of Major Mental Illness with APD and Alcohol

		Not Alcohol	Alcohol
NOT MMI	Not APD	10	4
	APD	4	22
Schizophrenia	Not APD	3	4
	APD	2	4
Affective Disorder	Not APD	6	7
	APD	10	21

Chi square = 15.933, df = 2, p = 0.0

Table 8.15
Cross diagnoses of NOT MMI with APD and Alcohol

NOT MMI	Not APD	APD
Not Alcohol	10	4
Alcohol Disorder	4	22

Chi square = 12.563, df = 1, p = 0.0

Table 8.16
Cross diagnoses of Schizophrenia with APD and Alcohol

Schizophrenia	Not APD	APD
Not Alcohol	3	2
Alcohol Disorder	4	4

Chi square = 0.125, df = 1, p > .10

Table 8.17
Cross diagnoses of Affective Disordered with APD and Alcohol

Affective Disorder	Not APD	APD
Not Alcohol	6	10
Alcohol Disorder	7	21

Chi square = 0.761, df = 1, p > .10

Comparison of Mentally-ill to Non-mentally-ill Inmates

The results in this section pertain to comparing mentally-ill inmates to non mentally-ill inmates on data measuring their prior criminal history, current criminal status, criminal outcomes, use of medical and mental health services, and institutional performance. The groups are defined as no major mental illness ("NOT MMI") and major mental illness (i.e., schizophrenia and affective disordered) (MMI) through the procedure described in the Method chapter.

Comparison of Criminal History

This section compared the inmates with major mental illness with those without a major mental illness on data that measures their past criminal history (i.e.,their involvement with or entry into the criminal justice system and the outcomes of that involvement). Overall, through the cumulation of differences calculated on all the variables that were used to measure criminal history, the mentally-ill inmates were not significantly different from the non-mentally-ill inmates (Hotelling T Square = 31.40, F = 0.80, p = .7367).

The two groups did not differ on the number of previous entries they had had into the criminal justice system (Table 8.18). With respect to the specific types of entries, there were no differences in the number of previous entries on a remand nor on entries to serve a jail sentence.

Table 8.18
Comparison of Groups on Criminal History:
Entries and outcomes of entries

Variable	NOT MMI		MMI		df	t	p
	mean	s.d.	mean	s.d.			
# of entries	4.95	5.44	5.72	5.93	95	0.65	.5170
# remand entries	2.48	3.51	2.54	3.35	95	0.10	.9223
# jail entries	1.03	1.78	1.12	1.77	95	0.27	.7899

Correction two-tailed p = .05, 3 tests, cut-off p = .017
Hotelling T Square = 2.1580, F = 0.7042, p = .5519

The two groups did not significantly differ in the types of offences they had been previously charged with. Nor did they differ in the seriousness of the offences they had been charged with.

Table 8.19
Comparison of Groups on Criminal History: Charges

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# Charges	8.93	10.3	8.86	9.41	95	0.03	.9743
1. murder	0.03	0.16	0.07	0.32	95	0.83	.4114
2. sexual assault	0.03	0.16	0.18	0.60	95	1.54	.1261
3. assaults	0.48	0.85	0.32	0.76	95	0.97	.3350
4. robbery	0.23	0.58	0.30	0.76	95	0.52	.6067
5. weapons	0.23	0.58	0.25	0.63	95	0.16	.8705
6. property	0.45	0.99	0.44	0.96	95	0.06	.9548
7. public order	0.35	0.66	0.19	0.64	95	1.17	.2435
8. major theft	2.65	3.81	2.54	3.47	95	0.14	.8872
9. minor theft	1.48	2.05	1.96	3.61	95	0.77	.4407
10. drug	1.02	2.38	0.53	1.26	95	1.34	.1834
11. breaches	0.55	0.93	0.49	0.80	95	0.33	.7409
12. mva	0.68	1.72	0.53	1.36	95	0.47	.6360
13. other	0.13	0.40	0.14	0.35	95	0.20	.8425
14. court/escape	0.65	1.00	0.93	1.89	95	0.86	.3944
Correction two-tailed p = .05, 14 tests, cut-off p = .0035							
Hotelling T Square = 12.05, F = 0.74, p = .7274							
1. major	0.05	0.22	0.11	0.36	95	0.86	.3932
2. serious	0.30	0.61	0.35	0.79	95	0.34	.7330
3. moderate	5.43	6.80	4.82	5.41	95	0.48	.6299
4. minor	3.15	4.07	3.58	5.35	95	0.43	.6700
Correction two-tailed p = .05, 4 tests, cut-off p = .0125							
Hotelling T Square = 1.99, F = 0.48, p = .7486							

The inmates with major mental illness did not differ from the inmates without MMI in the number of total (cumulative) days they had previously spent in custody (Table 8.20). There was no difference between groups with respect to whether these days were served on a remand or served under a sentence.

Table 8.20
Comparison of Groups on Criminal History:
Number of days spent in custody

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# remand days	78.3	141.6	74.1	104.8	95	0.24	.8123
# sentence days	228.5	338.1	212.2	334.4	95	0.24	.8142
# custody days	306.8	428.5	286.3	404.5	95	0.24	.8123

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square = 0.06, F = 0.03, p = .9722

In terms of previous criminal consequences measured by the number of sentences they had received, the MMI group received almost exactly the same number of sentences as the NOT MMI group (Table 8.21). Closer analysis indicated there were no differences between groups on the number of jail or probation sentences received, although the MMI group received slightly more penitentiary sentences, but not significantly so.

Table 8.21
Comparison of Groups on Criminal History: Sentences

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# sentences	5.68	7.27	5.67	7.29	95	0.01	.9956
# jail sentence	4.68	6.15	4.04	6.39	95	0.49	.6233
# pen. sentence	0.05	0.22	0.12	0.38	95	1.09	.2803
# prob. sentence	1.23	1.90	1.35	1.81	95	0.33	.7425

Correction two-tailed p = .05, 3 tests, cut-off p = .017
Hotelling T Square = 3.39, F = 0.94, p = .4426

For those given a custody sentence, there were no differences between groups in the number of cumulative sentence days to be served for their previous convictions (Table 8.22). However, the MMI group received slightly less cumulative sentenced days than the NOT MMI group (approximately 25% less). Also, there were no differences in the number of months to be served on probation that they received.

Table 8.22
Comparison of Groups on Criminal History: Sentences

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# days sentence	964.0	2020	725.8	1164	95	0.73	.4648
# months prob.	20.4	35.5	37.6	132.9	95	0.80	.4276

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square = 1.56, F = 0.77, p = .4640

Comparison of Current Criminal Status

This section analyzes differences in the inmates current criminal status: in the numbers and types of criminal charges that brought them into the remand to await outcomes on these charges.

Although, the MMI group had slightly fewer charges on entry than the NOT MMI group, this was not a significant difference (Table 8.23). In respect to the additional charges added and the total number of charges they received on this remand, there were no significant differences between groups.

Table 8.23
Comparison of Groups on Current Criminal Status:
Numbers of Charges

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# on entry	1.65	0.95	1.33	0.79	95	1.79	.0764
# additional	1.57	2.12	1.61	1.98	95	0.09	.9263
# total	3.23	2.06	2.95	2.14	95	0.64	.5245

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square = 1.88, F = 0.94, p = .5063

There were no differences between groups on the types of offences they were charged with under this remand (Table 8.24). Although the NOT MMI group had more minor charges, there were no significant differences between groups on the seriousness of the offences they were charged with (on next page -- Table 8.24 continued).

Table 8.24
Comparison of Groups on Current Criminal Status:
Types of Charges

Types of Charges	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
1. murder	0.03	0.16	0.07	0.26	95	0.47	.3270
2. sexual assault	0.03	0.16	0.12	0.57	95	1.06	.2931
3. assaults	0.30	0.65	0.30	0.63	95	0.01	.9893
4. robbery	0.30	0.52	0.25	0.47	95	0.53	.5930
5. weapons	0.23	0.48	0.18	0.50	95	0.49	.6281
6. property	0.18	0.45	0.07	0.28	95	1.46	.1473
7. public order	0.05	0.22	0.02	0.13	95	0.90	.3686
8. major theft	0.68	1.05	0.89	1.18	95	0.35	.3459
9. minor theft	0.10	0.38	0.11	0.36	95	0.07	.9451
10. drug	0.48	0.91	0.26	0.77	95	1.24	.2175
11. breaches	0.38	0.54	0.26	0.61	95	0.93	.3557
12. mva	0.23	0.86	0.18	0.68	95	0.32	.7533
13. other	0.05	0.22	0.09	0.39	95	0.55	.5829
14. court/escape	0.25	0.59	0.16	0.41	95	0.91	.3672

Correction two-tailed p = .05, 14 tests, cut-off p = .0035
Hotelling T Square = 14.01, F = 0.86, p = .5994
Table 8.24 continues

Table 8.24 continued
Comparison of Groups on Current Criminal Status:
Types of Charges

Types of Charges	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
1. major	0.08	0.27	0.12	0.47	95	0.58	.5600
2. serious	0.25	0.63	0.35	0.79	95	0.67	.5039
3. moderate	2.13	1.60	1.98	1.61	95	0.43	.6681
4. minor	0.80	1.16	0.49	0.93	95	1.45	.1491

Correction two-tailed p = .05, 3 tests, cut-off p = .017
Hotelling T Square = 2.1580, F = 0.7042, p = .5519

Comparison of Criminal Outcomes

This section examines the results of the inmate's remand on the above charges. It does this two ways: (1) calculating the time spent on remand, and (2) determining the consequences of trial of the offences charged with - number of convictions, types of sentences, and length of sentence received

Although, the inmates with major mental illness served more days (approximately 30% more) on remand than the NOT MMI group this was not a significant difference (Table 8.25). The NOT MMI group served slightly more days in a provincial jail under sentence than the MMI group (approximately 67%) more, but this also was not significantly different.

Table 8.25
Comparison of Groups on Criminal Outcomes:
Custody time on remand

Variables	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
remand days	63.4	93.1	81.4	70.1	95	1.08	.2810
sentence days	51.7	69.6	32.7	50.2	95	1.57	.1207
total days	115.1	115.5	114.1	84.5	95	0.05	.9577

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square = 3.54, F = 1.75, p = .1790

There was no difference between groups on the number of sentences they received after this remand (Table 8.26). Closer analysis reveals that, while the MMI group received slightly more penitentiary and probation sentences and less jail sentences than the NOT MMI group, this was not a significant difference.

Table 8.26
Comparison of Groups on Criminal Outcomes:
Convictions - number of sentences given

Variables	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# total sentences	1.55	1.48	1.47	1.55	95	0.24	.8085
# jail sentences	1.33	1.53	1.00	1.15	95	1.20	.2345
# pen. sentences	0.08	0.27	0.21	0.65	95	1.25	.2144
# prob. sentences	0.18	0.38	0.25	0.43	95	0.83	.4111

Correction two-tailed p = .05, 3 tests, cut-off p = .017
Hotelling T Square = 5.25, F = 1.27, p = .2873

Again, the MMI group received slightly more cumulative days to serve under sentence than the NOT MMI group, but not significantly more (Table 8.27). The same is true for the length of probation sentences received.

Table 8.27
Comparison of Groups on Criminal Outcomes:
Sentence outcomes - length of sentences

Variables	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
# days sentenced	458.6	1122	564.4	1300	95	0.42	.6778
months prob.	3.55	8.61	5.42	10.4	95	0.94	.3518

Correction two-tailed p = .05, 2 tests, cut-off p = .025
Hotelling T Square = 1.13, F = 0.56, p = .5744

Comparison of Use of Medical and Psychological Services

This section of analysis compares the groups on the amount of medical and mental health staff services that are used. The first table indicates the total amount of services used, as measured by the number of visits an inmate made to see a professional. The inmates with major mental illness used more psychological services (approximately 2 times more) than the NOT MMI group, but this was not a significant difference (Table 8.28).

The MMI group used more medical services than the NOT MMI group, but not significantly more. The MMI group used more psychiatric services - 8 times more - but this was not significantly more than the NOT MMI group. The MMI group did not need significantly more emergency phone calls made by the nurses to the medical doctors for medications. However, in examining the use of all the mental health services the MMI group had significantly more visits to mental health professionals than did the NOT MMI group. The mentally-ill inmates had nearly three times more visits to mental health professionals than did the non-mentally-ill inmates. The trend over all the medical and psychological services indicated that the MMI group nearly used

significantly more of these services than did the NOT MMI group (Hotelling T Square = 11.11, F = 2.12, p = .0716).

Table 8.28
Comparison of Groups on
Utilization of Psychological and Medical Services

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
Psychlg. visit	2.25	2.93	4.35	5.88	85	1.88	.0634
Physician visit	3.56	5.12	4.71	5.35	85	0.98	.3300
Psychiat. visit	0.19	0.78	1.56	4.04	85	1.90	.0606
Nurse phone call	2.09	3.32	2.80	4.40	85	0.79	.4339
M.H. visit	2.00	3.21	5.29	4.40	85	3.20	.0020

Correction two-tailed p = .05, 5 tests, cut-off p = .010
Hotelling T Square = 11.11, F = 2.12, p = .0716

As in Study 1 the above data were corrected for amount of time spent on remand: average number of visits per day. The findings still hold. The MMI group did not significantly differ from the NOT MMI group on the average number of visits per day to the psychologist, physician, psychiatrist, or in the total number of mental health services they received. However, the MMI group did receive more psychiatric visits - 5 times more - and more total mental health visits - 2 times more - than the NOT MMI group. Examination of the cumulative differences between groups overall these services, indicated that the MMI group nearly used (Hotelling T Square = 10.51, p = .0867) more medical and mental health services than did the NOT MMI group.

Table 8.29
Comparison of Groups on
Utilization of Psychological and Medical Services:
Average per day on remand

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
Psychlg. visit	0.04	0.07	0.08	0.13	85	1.31	.1946
Physician visit	0.10	0.13	0.06	0.08	85	1.49	.1398
Psychiat. visit	.004	0.02	0.02	0.05	85	2.20	.0307
Nurse phone call	0.04	0.06	0.04	0.09	85	0.13	.8995
Men.Hlth. visit	0.05	0.08	0.10	0.14	85	1.93	.0569

Correction two-tailed p = .05, 5 tests, cut-off p = .01
Hotelling T Square = 10.52, F = 2.00, p = .0867

Comparison of Institutional Information

The groups were compared on their institutional performance. As was done in Study 1, the total number of charges were analyzed because the frequency of charges for each of the 12 rule violations was small. In addition, the number of segregation days to be served as a result of convictions on these charges, the number of informal lock-downs as disciplinary actions taken by the correctional officers, and the number of days the inmates spent locked-down in their cell were also analyzed.

There were no significant differences between groups on these variables. Interestingly, the MMI had nearly one-half the number of formal institutional charges and one-half the number or days to be served in segregation resulting from these charges when compared to the NOT MMI group. The two groups were virtually the identical in respect to the number of informal disciplinary actions: the number of times locked-up (called "lock-downs") in their cells and the number of days spent locked-up in their cells.

Table 8.30
Comparison of Groups on Institutional Performance

Variable	NOT MMI mean	NOT MMI s.d.	MMI mean	MMI s.d.	df	t	p
Total # charges	0.86	1.74	0.47	0.87	83	1.36	.1769
Total # days	4.48	11.2	2.33	7.59	83	1.01	.3139
Total # lock-ups	0.83	1.38	0.82	1.58	83	0.05	.9589
Total # lock-up days	1.19	2.44	1.04	1.91	83	0.75	.7456

Correction two-tailed p = .05, 4 tests, cut-off p = .0125
Hotelling T Square = 2.66, F = 0.65, p = .6337

These findings still held when we averaged the number of charges and days in their cells by the amount of time they spent on remand. There were no significant differences between the two groups. However, there were some interesting differences between groups on these variables. The NOT MMI group received more formal charges and punishment for convictions on those charges. Essentially, the non-mentally-ill inmates received twice as many penalties and twice as much punishment as the MMI group. The non-mentally-ill inmates also received twice as many informal sanctions and punishments, on a per day basis, when compared to the mentally-ill inmates.

Table 8.31
Comparison of Groups on Institutional Performance:
Average per day

Variable	NOT MMI		MMI		df	t	p
	mean	s.d.	mean	s.d.			
Total # charges	0.01	0.04	.004	.008	83	1.85	.0682
Total # days	0.06	0.16	0.02	0.06	83	1.82	.0723
Total # lock-ups	0.02	0.05	.009	0.02	83	1.58	.1176
Total # lock-up days	0.02	0.08	0.01	0.02	83	1.43	.1556

Correction two-tailed p = .05, 4 tests, cut-off p = .0125
Hotelling T Square = 5.09, F = 1.23, p = 0.3065

CHAPTER IX

DISCUSSION

In order to discuss the results of this project, I shall first consider the tests of the hypotheses in each of the two studies. The results of the two studies will be compared and the factors underlying the differences between the two will be explored. Then results from this study and previous studies will be discussed in the form of a model of decision-making with respect to mentally ill offenders. Since the epidemiological characteristics suggest the co-occurrence of disorders, I shall then discuss the problem of multiply disordered offenders. I will then review the methodological problems of the present study and the strategies for future research that are suggested by the current research. Finally, I shall consider the effect of criminalization of the mentally ill on the correctional system, with specific reference to the clinical, management, and social policy challenges that derive from the criminalization process.

Tests of the hypotheses of the present study

The following sections will reiterate the general questions that were asked in the context of the present study and will examine evidence regarding the specific tests of the hypotheses.

Hypothesis 1

The first hypothosis focused on the issue of the prevalence rates of mental illness in the jail population. I wanted to know what proportion of the jail population evidenced a major mental illness. This led to the specific hypothesis that there would be

a higher prevalence rate of mental illness in the remand population than in the general population. The results from both studies supported this hypothesis.

Study 1 found substantially higher rates of mental illness in the inmate population when comapred to the general population. The lifetime prevalence rate of schizophrenia was 5.8% and the lifetime prevalence rate of a major affective disorder was 15.3% in this sample compared to, approximately, 1% for schizophrenia and 7% for affective disorder in the general population.

The epidemiological results from Study 1 are not dissimilar to those found in other jail studies (see Table 3.03). The percentage found to be schizophrenic (5.8%) in Study 1, fits into the range of 2% to 10% of psychotic disorders found in other jail studies. The percentage of those with an affective disorder (15.3%) in Study 1, fits into the range of 9% to 23% with affective disorders indicated in other jail studies. The results from Study 1 confirm the fact that a substantial proportion of the jail population suffer from a major mental illness.

Bland, Orn and Newman (1988) have provided Canadian (Edmonton) data on the lifetime prevalence rates of mental illness in the community through using the DIS. Robins, Helzer, Weissman, et al. (1984) have provided similar data, from the Epidemiological Catchment Area (ECA) studies of National Institute of Mental Health, for lifetime prevalence rates of mental illness at three sites in the United States. These rates are shown below in Table 9.01. The ECA data are displayed as a range of rates. It is clear that the prevalence rates of major mental illness in Study 1 are higher than the rates found in the general population.

Table 9.01

Lifetime prevalence rates of mental disorders in
Study 1, Study 2, other jail populations, and in the general population

	Study 1 *	Study 2	Edmonton jail	Jails	Edmonton community	USA ECA
Psychotic disorders	8.0%	13.4%	2.2%	2%-10%		1%-2%
Schizophrenia	(5.8%)	(9.3%)	**(9.4%)	1%-8%	0.5%	
Schizoaffective	(2.3%)	(4.1%)		2%		
Affective disorders	15.3%	43.3%	22.8%	3%-21%	7.1%	4%-8%
Bipolar	(6.1%)	(17.5%)	4.4%	1%-3%	(0.7%)	
Major depression	(9.3%)	(25.6%)	16.7%	2%19%	(5.9%)	
Anxiety disorders	8.3%	27.9%	15.6%	--	8.7%	7%-24%
Alcohol disorders	***19.0%	78.0%	78.9%	11%-29%	29.3%	19%-29%
Drug disorders	***16.0%	76.0%	50.6%	6%-25%	10.6%	6%-8%
Antisocial P.D.	20.8%	67.0%	56.7%	13%-31%	6.5%	4%-5%

* 66.8% of Study 1 were not given a diagnosis because they did not complete a DIS - these are minimum rates of diagnostic categories in Study 1.
** 9.4% of this studies sample were diagnosed as having an obsessive-compulsive disorder and was listed under a psychotic disorder in that study.
*** The self-reported rates of lifetime substance abuse for subjects in Study 1 were 52% for alcohol abuse and 49% for drug abuse.

The lifetime prevalence rates of mental disorders in Study 2 were much higher than those found in the general population (Table 9.01). The lifetime prevalence rate of schizophrenia was 9.3% in this sample which was nearly 9 times that found in the general population. The rate of affective disorders was also extremely large: 6 times the rate found in the general population . Almost one-half of the jail population reported some sort of affective disorder. The lifetime prevalence rate of anxiety disorders in this sample was 3 times the rate of the general population in Edmonton. Alcohol and drug disorders were found in nearly all of the sample of Study 2. And most of the inmates evidenced an antisocial personality disorder which is 10 times the prevalence rate found in the general population. Again, these results point to the fact that a large proportion of inmates suffer from a major mental illness.

The epidemiological results from Study 2 are somewhat different from other jail studies (Table 9.01). The percentage found to be schizophrenic in Study 2 (9.3%) fits into the range of 2% to 10% of psychotic disorders found in other jail studies. The prevalence rates of alcohol and drug disorders and antisocial personality disorders were at the upper end of the range of rates found in other studies. However, the rates of affective disorders and anxiety disorders were higher in this study.

The demographic characteristics of the sample in Study 1 (e.g., one-third reporting a psychiatric history, one-third reporting that they have attempted suicide, many reporting drug and alcohol abuse and dependency) suggested that there would be higher rates of mental illness in this sample than in the general population. [1] The results from Study 1 and Study 2 support results of other jail studies, that have found

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1. This will be more fully discussed later in the chapter.

the prevalence of major mental illness is higher in jails than in the general population (cf. Bland et al., 1990; Daniel et al., 1988; Teplin, 1990).

However, there are some differences between the present study's results, especially in Study 2, and those from other studies. This study's rate of psychotic disorders is in the high range in comparison to other jail studies. In comparison to this study, Teplin (1988) found much lower lifetime prevalence rates of major mental illness. This difference could be explained by the remarkable differences in sample characteristics between her study and this one. Teplin's (1988) sample can be characterized as young black males who were there, perhaps, because they were culturally disordered (e.g., perhaps there for a variety of drug, weapon, theft and assault charges). In contrast, this sample was characterized by being white, slightly older males many of whom had a moderate amount of psychological and social disturbance. Examination of Teplin's (1990) results indicated that the were higher rates of major depression (11.5%) and mania (4.5%) among white detainees, in comparison to black detainees (4.9% depression, 2.2% mania). This would suggest that a sample of predominantely white inmates could have a prevalence rate of up to 16% for an affective disorder. Teplin's (1990) results did not indicate a difference in the rate of schizophrenia: white detainees had a rate of 3.5% schizophrenia while black detainees had a rate of 3.7% schizophrenia. Since Teplin's sample was 87% black and the present study sample was 5% black and 72.9% white, perhaps the differences in results were simply due to the studies drawing from very different populations.

Closer to home, for example, Bland et al. (1990) only found a lifetime prevalence rate of 2.2% for schizophrenia in their provincial jail population of sentenced inmates. They also found a rate of 22.8% for affective disorders which was slightly higher than the Study 1 rate of 15.3%. However, the methodologies of the two

studies differ: Bland et al. (1990) examined all of their sample by using the DIS whereas this study examined a subsample of the sample with the DIS. As noted in Chapter VII, the methodology of Study 1 resulted in rates that would represent the lowest estimated level of the lifetime prevalence of mental illness in that sample.

In summary, this study indicates that there are more mentally ill in the criminal justice system than we would find in the general population. As well, the characteristics of this site (i.e., a remand jail in the downtown core) may have led to higher prevalence rates of mental illness than those found in other jails. One aspect of the criminalization of the mentally ill is indicated by the inordinate presence of the mentally ill in the criminal justice system. This study supports the fact the mentally ill have been criminalized.

Hypothesis 2

The second hypothesis dealt with the criminal histories of the subjects. I wanted to know if the criminal histories of the mentally-ill inmates differed from the non-mentally-ill inmates. For example, were the criminal histories of the mentally ill indicative of more criminal contacts than the non-mentally ill? The specific hypothesis of this was stated as: the mentally-ill inmates would have had more contacts with the criminal justice system, and would have spent more time in jail on remand and under sentence than the non-mentally-ill inmates. In addition, the mentally ill were expected to have been more involved in the criminal justice system for less serious charges -- especially, property, fraud, nuisance and minor theft charges -- than the non-mentally ill. The results of the present study bring equivocal support to the hypothesis: the results from Study 1 generally support the hypothesis while the results from Study 2 do not.

The mentally-ill inmates in Study 1, had had significantly more contacts ("entries") with the criminal justice system than their non-mentally-ill counterparts. They had had slightly more charges, but they had had significantly more entries into the criminal justice system (e.g., bail hearings, remands to await trial, sentencing) (Table 7.14) than the non-mentally ill. The latter difference was due to them having been remanded to await trial more frequently than non-mentally-ill criminals (Table 7.14). However, the increased contact was not due to them committing more major, serious or moderate crimes. It was entirely due to them committing more minor crimes. Offences included in the "Minor" category, in this study, were: breach of probation, breach of recognizance, failure to appear at court, false pretences, food fraud, public fraud, mischief and willful damage, public mischief, causing a public disturbance, theft under $200, and being in an unlawful dwelling. It is clear that the mentally ill had committed more nuisance, public disturbance, and minor crimes than had the non-mentally ill. In regards to specific categories of charges, they had committed significantly more minor theft crimes and slightly more breaches, other offences, and sexual assaults. These results suggest that, historically, the mentally-ill inmates had been arrested for more minor crimes and it was this type of crime that resulted in them entering the criminal justice system to await trial.

These results are consistent with other studies that have found the mentally ill entering the criminal justice system on less serious charges such as misdemeanors (cf. Binns et al. 1969a, 1969b, Bonovitz & Guy, 1979; Lamb & Grant, 1982, 1983; Piotrowski, 1976; Valdiserri et al., 1986). As noted in Chapter III, Bowden (1978) found that, of those with a mental disorder who were referred for assessment, the most frequent charges were for theft (73%), vagrancy (57%), burglary (49%), and fraud (41%). However, these results do not mean that the mentally ill do not commit serious or violent crime. In Study 1, while the mentally-ill inmates had commmitted more of the

minor charges, they had also committed the same number of moderate, serious, and major offences as the non-mentally-ill inmates. As Valdiserri et al. (1986) conlcude about mentally-ill inmates, in comparison to non-mentally ill inmates, who were referred to a forensic clinic:

> [They] tended to be detained and incarcerated as an alternative to psychiatric institutionalization and whether the charges against them were less serious than those that ordinarily result in incarceration...the psychotic inmates were, to an inordinate degree, incarcerated on minor charges, especially charges we categorized as lesser offences. (pp. 163, 165)

Valdiserri et al. found this relationship in a sample that was preselected to find mental illness. The results from Study 1 indicated the same relationship in a straightforward sample of criminal justice system inmates.

These results suggest two explanations in regards to the mentally ill's involvement with the criminal justice system. The mentally ill could commit the same number of more serious offences as the non-mentally ill, but, in addition, commit more of the less serious offences than do the non-mentally ill. Or, the group of mentally-ill offenders may actually consist of two subgroups: one group of the mentally ill who commit less serious offences, and another group who commit more serious offences. This could be representative of the former group being the "mad" and the latter group being the "mad and bad". The present study does not address this issue.

As one would expect, the consequence of more remand entries, was to have had more time spent in jail awaiting trial (Table 7.16) -- approximately 40% more --, however, this was not a statistically significant difference. In addition, they had not spent more time in a provincial jail while serving a sentence.

Since they had more charges we find that the mentally-ill inmates had more previous convictions (i.e., number of sentences) (Table 7.17). Interestingly, these

convictions resulted in more provincial sentences, and slightly more (non-significant) penitentiary and probation sentences. However, as mentioned above, they did not serve more time in jail under provincial sentences as they did not receive more days to be served under sentence (i.e., cumulative sentence length).

In terms of this sample's criminal history, these findings were similar to Beck et al., (1984) who found the mentally-ill accused to be found guilty more often than non-mentally-ill accused. Study 1 also found that the mentally ill received more convictions. As well, similar to Beck et al., (1984), the mentally ill received more onerous sentences (e.g., more provincial jail sentences), but the length of sentence (e.g., total custody days given) was not more onerous.

In summary, in Study 1 the mentally ill had had more contacts with the criminal justice system than the non-mentally inmates. However, this difference was due to the mentally ill committing more minor offences. We would expect that they would have spent more time in jail under sentence because they had more charges, more criminal justice system entries, more convictions (i.e., sentences), and more provincial sentences. But they did not. The picture that emerges is that they did not serve more jail time because they were there for shorter sentences. The mentally ill appear to have more entries for more minor crimes and serve "little bits of time" in jail.

These results are consistent with other research. Adams (1983) found that mental patient parolees had a significantly higher number of convictions in their criminal histories when compared to non-mental patient parolees. Sapsford and Fairhead (1980) found that mentally-disordered parolees were significantly more likely to be reconvicted than were ordinary parolees. One straightforward explanation is that the mentally ill commit more crimes than do the non-mentally ill. Another explanation, consistent with Study 1 findings, is that the courts have used a jail remand, for these less

serious charges, as a way of controlling this behaviour. However, the courts do not then punish the mentally ill more than the others, therefore, the mentally ill had not received more time in jail nor had they served longer time in jail, even though had had more convictions.

In comparison to Study 1, the mentally-ill inmates in Study 2 were not different from the other inmates with respect to the extent and type of previous involvement with the criminal justice system. The two groups had the same number of previous charges: both had, on average, 8.9 previous charges. There were no differences in the types and seriousness of these charges (Table 8.19). There were not any differences in the numbers of previous contacts (i.e., entries) with the criminal justice system: there were no differences in the numbers of remand and jail (i.e., to serve a provincial jail sentence) entries (Table 8.18).

In Study 2, the mentally-ill inmates did not have more previous convictions (i.e., number of sentences) than non-mentally-ill inmates (Table 8.17). Nor were there differences between groups in the number of jail, penitentiary, or probation sentences given (Table 8.21). The mentally-ill inmates received slightly shorter sentences for previous crimes and longer probation sentences (85% longer) than the other offenders, but this was not a significant difference (Table 8.22). Therefore, in terms of their previous criminality, the mentally-ill inmates were neither more nor less criminal than the non-mentally-ill inmates.

Sapsford and Fairhead (1980) designated their parolees into three categories: mentally-disturbed, maladjusted, and ordinary. They found that the mentally-disturbed and the maladjusted groups both had more reconvictions than did the ordinary group of parolees. They also found no differences between the maladjusted and the mentally-disturbed parolees in regards to the rate of reconviction. Perhaps the differences found

in Study 1 were due to comparing the ordinary and the mentally-disturbed inmates, but the absence of differences found in Study 2 was due to comparing the maladjusted and the mentally-disturbed inmates. This will be discussed, more fully, later in this chapter.

Hypothesis 3

The focus of hypothesis 3 was on the current criminality of the mentally ill in comparison to the non-mentally ill. I wanted to know if the current charges laid against the mentally ill, that is the ones that brought them into jail on remand, were different from those charges laid against the non-mentally-ill remanded inmates. I wanted to know if the mentally-ill inmates were currently in the remand jail for less serious offences than the non-mentally-ill inmates. The specific hypothesis was: the mentally-ill inmates were expected to have entered on less serious charges than the non-mentally-ill inmates. The results from both Study 1 and Study 2 did not support the hypothesis.

In Study 1, in contrast to the mentally ill's criminal history described above, the characteristics of their current entry into the criminal justice system were different. The mentally-ill inmates did not enter with more or fewer charges than their non-mentally-ill counterparts. In fact, the numbers are remarkably similar: both groups entered with approximately 1.25 charges, had 1.25 charges added while on remand, for a total of approximately 2.50 charges per inmate (Table 7.19). In contrast to their criminal histories, the mentally-ill inmates did not have more minor offences. Again, the two groups were remarkably similar in both the types offences they were charged with and the seriousness of those charges (Table 7.20). Albeit they had twice as many minor theft charges, but this was not statistically significantly different from the non-mentally-ill inmates. Overall, the two groups entered with the same number, type, and seriousness of charges.

In Study 2, in terms of the current reason why they entered into the jail at the study period, the two groups did not differ in the number of charges they had (Table 8.23), the types of offences they were charged with, nor the seriousness of those offences (Table 8.24). The mentally-ill inmates had a slightly fewer number of offences that they had been charged with on entry, but this difference was not significant.

Hypothesis 4

This hypothesis concerned the consequence of having been remanded into jail to await trial. Simply, I wanted to know if the mentally ill accused spent more time in jail awaiting trial than did the non-mentally-ill accused. The hypothesis of this was that the mentally-ill inmate was expected to have served more time on remand than had the non-mentally-ill inmate. The results of the present study supported the hypothesis in Study 1 but not in Study 2, although in the latter study the differences between groups were found to be in the expected direction.

The consequences of their charges, for inmates in Study 1, as seen in the amount of time they spent in jail on remand awaiting trial or other types of decisions (e.g., bail), reveals an interesting picture. In Study 1, the mentally-ill inmates served significantly more time on remand (Table 7.21): nearly twice as much as non-mentally-ill inmates. In Study 2 the tendency was the same as Study 1: The mentally ill served 30% more time on remand but, again, this was not significantly different from what other inmates spent on remand.

The implications of these results, from the present study, are very important. Even though the mentally ill had not been charged with more crimes or more serious crimes in comparison to the non-mentally-ill accused, at point of entry (Study 1), the mentally ill spent more time on remand than did the non-mentally ill. Given all things

being equal (i.e., current charges), all things did not turn out to be equal (i.e., remand length) between the two groups.

Hypothesis 5

The focus of this hypothesis was on the criminal consequences that the mentally ill receive from their involvement with the criminal justice system. I wanted to know if the mentally-ill accused received different criminal outcomes than the non-mentally-ill accused. I wanted to know if the mentally-ill offender received more severe criminal justice system sanctions than the non-mentally-ill offender. In short, were the criminal outcomes different between the two groups? The hypothesis was that the mentally ill would receive more severe criminal outcomes than would the non-mentally-ill inmate. The test of this hypothesis was operationalized through the comparison of specific criminal outcomes that resulted from the charges that brought the subjects into the jail. The results from the present study provided little support for the hypothesis.

In Study 1, the mentally-ill inmates did not receive more convictions (i.e., sentences) (Table 7.29) than their non-mentally-ill counterparts. They did not receive more jail or probation sentences; but they did receive slightly more penitentiary sentences, although the difference in absolute numbers of penitentiary sentences was small. They received longer custody sentences, such that their total sentence length was twice as long as the non-mentally-ill inmates, but this difference only approached significance. They did not receive longer probation sentences. Even though they did not receive more convictions resulting in provincial jail sentences at the time of a one year follow-up, they had served significantly longer time (Table 7.28) in provincial institutions under a provincial sentence - 50% more time - than the non-mentally-ill inmates.

Therefore, the mentally-ill did not enter the criminal justice system, in this study period, for more charges or for more serious charges than the non-mentally-ill inmates. Nor did they enter for less serious charges. But they served more time on remand for these charges than their non-mentally-ill counterparts. However, they did not receive significantly longer sentences for convictions on these charges.

In Study 2 there were no differences in the numbers of sentences given on their convictions, nor in the number of types of sentences (Table 8.26). The mentally-ill received slightly longer probation (50% more) and custody sentences (25% more) than non-mentally-ill inmates, but these were not significant differences (Table 8.27). At a one year follow-up, in contrast to Study 1 results, there was a tendency for the mentally ill to have spent less time in custody under a provincial sentence -- approximately 60% -- in comparison to the non-mentally-ill inmates (Table 8.25), but, again, this was not a significant difference.

Overall, in Study 1, there was evidence that the mentally-ill inmate served a longer time in custody under a provincial sentence, but there was no substantial support for other evidence of discrimination (e.g., more sentences, longer sentences) in the criminal justice system's response to mentally-ill offenders. Overall, in Study 2, there was a nonsignficant tendency for the mentally ill to have received slightly more onerous sentences, but to have served less time in custody under a provincial sentence. The latter finding in Study 2 is opposite to that found in Study 1. Perhaps, as suggested above, this particular discrepancy in findings is due to the fact that the characteristics of both the mentally-ill and non-mentally-ill inmates were different between the two studies.

Hypothesis 6

This hypothesis dealt with the relationship between the presence of mentally-ill inmates in the jail and the services that were provided to inmates. I wanted to know if the mentally-ill inmates used more medical and mental health services than did the non-mentally-ill inmates. For example, had they received more service from the psychologists or the physicians than the non-mentally-ill inmates? The specific hypothesis was: that the mentally-ill inmates would use more medical and psychological services than would the non-mentally-ill inmates. Study 1 strongly supported the hypothesis, whereas there was only one result in Study 2 that supported the hypothesis, although the direction of differences in the latter study were consistent with those found in Study 1.

In Study 1, as was expected, the mentally-ill inmates used more psychological and medical services than the non-mentally-ill inmates. This occurred for both the absolute number of services, that is, the total number of visits for services, and the average per day number of visits for services. In the time they spent on remand the mentally ill had 6 times the number of visits per day to the psychologist, 5 times the number of visits to the physician, and 12 times the number of visits to the psychiatrist when compared to the non-mentally-ill inmates. Their problems also required more emergency phone calls to prescribe medications, which were most likely to take place in the first 2 days of custody, than the non-mentally-ill inmates. In terms of overall mental health services, they had 6 times more visits per day than the non-mentally-ill inmates. They required more medical and mental health services.

In Study 2, the mentally-ill inmates clearly received more psychological, physician, psychiatric and other medical services (i.e, nurses emergency phone calls for medication), both in absolute numbers of visits and the average number of visits per day

than the non-mentally-ill inmates (Tables 8.28 & 8.29). However, in regards to the absolute number of services received, the mentally ill only received significantly more total mental health services when compared to the non-mentally-ill inmate (the differences in the number of visits to the psychologist or the psychiatrist only approached significance). In regards to the average number of services received per day, the differences only approached significance. Therefore, in Study 2 there was a tendency for the mentally-ill inmates to have received more services, but this was only significantly found in the number of total mental health visits they had in comparison to their non-mentally-ill counterparts.

The importance of these results is that the mentally-ill consumed more medical and mental health services than do the non-mentally-ill inmates. Previous studies have not compared these variables directly between these groups. However, the results, from the present study, are consistent with the impressions suggested by other research (cf. Guy et al., 1985; James et al., 1980; Krefft & Brittian, 1983; Petrich, 1976a, 1976b, 1976c; Twaddle, 1976). Although these studies did not make direct comparisons between groups, they did note that many inmates, especially mentally-disturbed inmates, needed a substantial amount of mental health and medical services.

Hypothesis 7

This hypothesis focused on issues surrounding the performance of the mentally-ill inmates in jail. I wanted to know if the mentally ill caused more disturbances or disruptions in jail: did they get in more fights, did they "bug" other prisoners more, did they cause more management problems for the staff, than did the non-mentally-ill inmates? In short, were the mentally-ill inmates more problematic in jail than the other inmates?. The specific hypothesis was: that the mentally-ill inmates would cause more disciplinary problems than would the non-mentally-ill inmates. This test was

operationalized by examining the number of formal charges laid against each subject in accordance with the Correctional Centres Rules and Regulations, the consequences of those charges, the number of informal jail disciplines, and consequences of those disciplines seen in the number of times the inmates were locked-down in their cells. The results from the two studies only partially supported the hypothesis, as the findings from each were opposite to each other.

In Study 1, the mentally-ill inmates were clearly seen to cause more difficulties and disturbances than the other inmates. In Study 1, they were charged twice as frequently with offences committed against the Correctional Rules and Regulations of the institution than were the non-mentally-ill inmates (Table 7.27). However, this difference only approached significance. But the mentally ill received more onerous consequences to these institutional charges: they were punished with more days to be served in segregation than the other inmates. The mentally-ill inmates also had significantly more times when they were locked-up in their cells to ensure the safe and smooth running of the institution: this was 6 times more frequent for the mentally ill in comparison to the non-mentally-ill inmates. They also spent significantly more days in their cells under these lock-ups -- 4.5 times more days -- than the other inmates. Since the mentally ill had more incidents that resulted in a lock-up, this suggests that either the mentally ill consistently had many more situations that were informally resolved by locking them up in their cell for short periods of time, or that they had the same number of incidents as the non-mentally-ill inmates, but these incidents were resolved by the correctional officer in a different way for the mentally ill in comparison to the non-mentally-ill inmate -- the former group were punished more than the latter group.

When we averaged the number of infractions by the number of days served on remand, these differences, basically, still held true (Table 7.27). On average, the

mentally-ill inmates received more charges (2.5 times more charges) and more days to be served in segregation (3 times more days to be served in segregation), but these differences only approached significance. They still received significantly more lock-ups and days in their cells as a result of informal consequences for their disruptive or disturbed behaviour. The latter differences were remarkable: the mentally-ill inmates were locked in their cells as a result of an informal discipline 8 times more frequently than the non-mentally-ill inmates.

It can be suggested, that to average the number of infractions on a per day basis for comparison, hides the nature of the issue. Perhaps infractions occur in a bimodal fashion: at the beginning and at the end of custody periods: when an inmate first comes in and just before he leaves. This is because these are the most disruptive and anxiety-producing times of their stay in custody. In any case, it is clear that in this study the mentally-ill were seen to cause more disturbances and problems that resulted in both formal and informal decisions to punish them.

The findings in Study 1 are consistent with other studies. Uhlig (1976) noted that the mentally-ill offender had "an inordinate amount of disruptive behavior, including physical violence and serious, repeated infractions of administrative rule, the compounded result creates management problems of a major order" (p. 50). This is consistent with the view that these inmates are disruptive and disturbing in the community and therefore disrupting and disturbing in the jails (Symonds, 1977; Toch 1982; Uhlig, 1976). Adams (1983) also found ex-psychiatric patient parolees to have had signficantly more prison infractions and prison punishments while incarcerated than non-psychiatric patient parolees. The importance of these results is that mentally-ill offenders will be seen to have caused more problems, and therefore be punished more,

than non-mentally-ill inmates. The results from Study 1 suggest that this is more evident in the informal resolution of problems within the jail.

However, the differences between the mentally ill and non-mentally ill in jail are not as straightforward as the above suggested. In Study 2, contrary to what was expected, the mentally-ill inmates caused fewer disruptive and disturbed incidents that were contrary to the rules and regulations of the correctional institution (Tables 8.30 & 8.31). However, none of these differences were statistically significant although some approached a significance difference. Surprisingly, they had only approximately one-half the number of formal institutional charges, and they had approximately one-half the total cumulative number of days in segregation given as punishment for these charges, which is what we would expect for having less charges. In fact, there were no differences in the average number of days given as punishment for these charges: both groups had an average of 5 days to be served in segregation for every charge.

In addition, there were no essential differences in the number of informal punishments both groups received while they were on remand (i.e., lock-ups). Nor was there a difference in the number of days they were locked-up in their cells.

These findings held true when we examined the number of institutional charges and punishments received on a per day basis. Again, contrary to expectations, the mentally-ill received approximately one-half the number of formal and informal punishments that the other inmates received. These differences only approached statistical significance (Table 8.31).

Summary of the hypotheses

In summary, the following is apparent from Study 1. The remand jail had higher prevalence rates of mental disorders and of major mental illness than does the general

population. In Study 1, the mentally ill had had more extensive criminal histories, primarily for more minor charges than for moderate to very serious crimes, than the other inmates. This resulted in the mentally ill having spent more time in jail. However, it was not true that they entered in this study period charged with more minor offences. But it was true that the mentally ill did spend more time on remand. It is not true that they received more sentences, nor is it true that they received longer sentences, but they had served longer time under sentence at follow-up on these original charges. It is true that the mentally ill used more health and mental health services. And it is true that they were found to cause more disruption and disturbance in jail which results in more institutional punishments.

In summary, unlike the results from Study 1, the results from Study 2 indicated that only one of the hypotheses were supported. In this sample of the remand jail, there was higher prevalence rates of mental disorder and of major mental illness than found in the general population. But the other hypotheses were not supported in Study 2. Specifically, the mentally-ill entering the criminal justice system through the remand process had not more extensive nor different criminal histories than had the other inmates. They had not been incarcerated more than had the other inmates. The previous offences they had been charged with did not differ in type of, nor seriousness of, the offences. It was not true that the mentally ill entered into this study period charged with more minor offences. Nor was it true that they did spend more time on remand. They did not receive different criminal consequences for the charges they entered with. Although they used more health and mental health services these differences were only partially sufficient to support the hypothesis. It was not found that the mentally ill caused more disruption and disturbance in jail which results in more institutional punishments. In fact, the findings of Study 2 suggest the opposite: that the

non-mentally-ill inmates did cause more institutional problems than did the mentally-ill inmates.

Comparison of Study 1 and Study 2: characteristics and results

In terms of the epidemiological findings, both studies were similar. The prevalence rates for major mental illness were higher in Study 2 than Study 1. The rate of schizophrenia in both studies fell within the range found in other jail studies. The rate of affective disorders in Study 1 is similar to other studies; but Study 2's rate for affective disorder was much higher than that found in other studies. Since the methodologies of the two samples differ, in the present study, in the method of determining the rate of alcohol, drug and antisocial personality disorders (i.e., it is believed that Study 1 considerably underestimates the rates for these disorders), it is difficult to compare the results between samples for these disorders. The results from Study 2, perhaps, reflect more accurate rates of alchol, drug and antisocial personality disorders, and these rates are similar to those found in other studies.

It is clear that Study 1 and Study 2 yielded marked differences in some of their results and support for particular associated hypotheses. For the most part, Study 1 provided evidence to support the hypotheses while Study 2 did not. How can we understand these differences in results?

In the Method section, Study 1 and Study 2 were compared on a number of variables in order to confirm that these were two different samples of inmates. The results of these analyses help to explain the differences in findings between the two studies.

As noted above, the two samples did not differ with respect to age of inmates nor in their criminal histories. However, they did differ in the number and type of

offences they had been charged with on this remand. Study 2 entered with significantly more charges than Study 1. Also, the offences in Study 2 were more serious than those in Study 1. On entry to the study, those in Study 2 was facing more serious criminal charges than those in Study 1. Therefore, at this point, the inmates from Study 2 could be characterized as more being criminal or "badder" than the inmates from Study 1.

On entry, Study 2 inmates evidenced significantly more psychopathology than did those in Study 1. On the BPRS they had been rated as having significantly more severe psychopathological symptoms than those in Study 1. Inmates of Study 2 had attempted suicide more often than inmates of Study 1, and the screening psychologist had rated inmates of Study 2 as having more psychopathology present when compared to those in Study 1. Therefore, at this point, the inmates from Study 2 could be characterized as being more psychologically disturbed or "madder" than the inmates from Study 1.

We would expect this difference in the amount of psychopathology to be evidenced in a different prevalence rate of mental illness and this was indeed found (cf. Table 9.01). There was a slightly higher rate of major mental illness in Study 2, including a slightly higher rate of schizophrenia, a much higher rate of affective disorders, and a higher rate of anxiety disorders.

Since remand is used to hold persons while they await trial, we would expect that those with more charges and with more serious charges would spend a longer time on remand because it would take the court a longer time to dispose of the charges. Study 2 subjects did stay significantly longer on remand than did those in Study 1. In fact, Study 2 inmates stayed twice as long awaiting trial when compared to Study 1 inmates.

The trial outcomes of these charges reveal that Study 2 inmates received slightly more convictions, slightly more jail and penitentiary sentences, and longer sentences (60% longer), but not significantly so, than Study 1 inmates.

Since Study 2 inmates had more psychological problems on entry we would expect them to use more medical and mental health services than Study 1 inmates. Study 2 inmates did use significantly more psychological services, medical and nursing services, but not psychiatric services (which was a relatively rare event) than those in Study 1.

Since Study 2 was more psychologically disturbed and had more serious criminal proceedings, and consqeuently were more criminal, we would expect their behaviour in the institution to be more disruptive and disturbed. Study 2 inmates induced significantly more infractions that resulted in both formal and informal disciplinary actions. They received significantly more punishment including being locked-up in segregation or in their cells than did Study 1 inmates.

Remand is used to hold persons while court makes decisions about them. Remanded inmates await these decisions; their remand ends in being granted bail or having the proceedings dropped or stayed or proceeding through trial to conviction or acquittal. It is clear that, on average, Study 1 inmates' remands were considerably shorter than those of Study 2 inmates. In addition, within Study 1, the mentally-ill inmates stayed longer than their non-mentally-ill counterparts. (This does not preclude the fact that Study 1 inmates with more serious offences, also may have stayed longer.) The collarary could be true: in Study 1 the longer an inmate stays in jail the more likely it is that he is found with some sort of major mental illness. Since Study 2 sampled inmates who were twice as long on remand than those in Study 1, it is more likely that the Study 2 sampling procedure would choose inmates with some sort of major mental

illness. There is an increased probability of finding major mental illness in Study 2 because the sample drew from inmates that stayed longer. In fact, Study 2 could be considered a theoretical subsample of those in Study 1, that is, being comprised of those who enter the jail on remand -- as in Study 1 -- but, more specifically, are the ones that stay longer than average.

The picture that emerges is that, over time, the sample characteristics of the jail population change. These characteristics change because of criminal justice system decisions. Simply, of all those entering the remand jail, the inmates who are filtered out first are those that are granted bail, have their charges dropped, or have a quick resolution of their criminal proceedings. Granting bail is a decision based on whether the judge believes the accused will or will not show up in court for the next hearing, or believes the accused poses a threat to the community by residing in the community to await trial. Therefore, those who cannot be counted on to show up in court or pose a threat to the community are not granted bail and will stay on remand. These are the "mad" and the "bad". Those who cannot afford private counsel will take longer to go to court: these are the economically disadvantaged of whom many are also mentally ill.

The effect of this process is for the "mad" and the "bad" to stay longer on remand. As noted above, inmates who had been differentiated into three groups -- the "mentally disturbed", the "maladjusted", and the "ordinary" -- have different criminal histories and outcomes (Sapsford and Fairhead, 1980). Similarily, if we designate those in Study 1 who had earlier releases and did not have an inordinate amount of criminal justice system problems as "ordinary" criminals, then Study 1 was a comparison of the "ordinary" and the "bad" (i.e., NOT MMI group) to the "mad" (i.e., the MMI group). However, Study 2 compared mostly the "bad" (i.e., the NOT MMI group) to the "mad" (i.e., the MMI group). In the first study, differences were found between the "ordinary"

and the "mad"; in the second study those differences disappear when the "bad" and the "mad" are compared.

In fact, in Study 2, some of the findings were the opposite of those found in Study 1. In Study 1, the mentally-ill inmates (the "mad") created more problems for jail staff, reflected in institutional charges and informal "lock-downs" in their cells, than the non-mentally-ill inmates (i.e., the "ordinary" ones). But in Study 2, the mentally-ill inmates tended to have, on a per day basis, less institutional charges, less segregation days as a result of those charges, less informal "lock-downs' in their cells, and less informal "lock-down" days spent in their cells, than the non-mentally-ill inmates (i.e, the "bad"). Although, these were not significant differences, they do indicate a definite tendency, in those that stay on remand, for the mentally-ill inmates to be less disruptive than the non-mentally-ill inmates.

A study by Kropp, Cox, Roesch and Eaves (1989), at the same site as the present study, may shed some light on these tendencies. They studied the perceptions of correctional officers toward mentally-ill inmates, ordinary inmates, and the (ordinary) mentally ill. Kropp et al., (1989) found that correctional officers perceived the mentally-ill inmates to be significantly less predictable, less understandable, less manipulative, less rational, and more dangerous than other inmates.

There are problem situations which the correctional officer must resolve to protect the safety of the inmates and security of the jail. These call for conservative actions. Since the mentally-ill inmates were perceived as more unpredictable and more dangerous, it is more likely that the correctional officer resolved a problem situation with a mentally-ill inmate differently than he or she did with a non-mentally-ill inmate. It may have been that, in problem situations, the mentally-ill inmate was more likely to be locked in his cell or formally charged and placed in segregation than his non-

mentally-ill counterpart. This was so in the first of the current studies. As Kropp et al. pointed out, the mentally-ill offenders are "perceived the least favourably perhaps because they combine mental illness and criminality...the perceived presence of [both] badness and madness" (p. 187). However, in Study 2, the opposite was found. Perhaps this indicates a refinement to the Kropp et al. study: in Study 1 the comparison was between "ordinary" and "bad" criminals to the "mad" criminals, but in Study 2 the comparison was between the "bad" and the "mad" criminal. There is the recognition, by jail personnel, of inmates who are not mentally-ill but who are extremely problematic or disruptive inmates. They may be designated by terms such as "a bad ass" by both inmates and correctional officers. Perhaps, the "criminal" category in Kropp et al., could be differentiated into two types of inmates: those who "keep quiet and do their own time" versus those who "suffer from an 'bad ass' personality disorder". With this differentiation, we may find that the mentally-ill offender is considered to be more dangerous and more problematic, with the resulting need to receive institutional discipline, than the first type of inmate. But the mentally-ill inmate is actually less dangerous and problematic and, therefore, needs less institutional discipline than the latter type of inmate. In addition, those inmates who both "bad" and "mad" -- those who fit the "'bad ass' personality disorder" and are mentally-ill -- may suffer even more consequences than either the "ordinary", "mad", or "bad" inmates. This explanation has yet to be tested.

A model of criminalization

> The Canadian criminal justice system includes a series of key stages ranging from the decision of citizens to telephone the police through the supervision of offenders released from correctional institutions...It is a human process, one charcterized by discretion and inconsistency rather than machine-like precision and predictability. (Griffiths & Verdun-Jones, 1989, p.1)

The criminal justice system is a decision-making forum. As one flows through the criminal justice system (see Figure 2.2), there are decisions points that will either take someone out of the criminal justice system or involve him more intensively and more punitively within it. At each site, there is a decision about those persons included at that site about whether the person should stay in the criminal justice system or to be released from it. At each site, there are decisions about giving criminal justice system consequences to the participants: they receive consequences or they do not. These decisions are made by a number of different criminal justice system personnel: police, crown counsel, judges, juries, court workers, correctional officers, parole boards, probation officers, and parole officers. The research reviewed in Chapter III points out that there can be a bias in these decisions, such that the mentally ill can become more and more involved in the criminal justice system -- they do not escape. Not only is the criminal justice system the system that can't say "no" but it may actively say "yes" to the mentally ill.

Police and arrest

> While the patrol officer occupies the lowest level in the hierarchy of the police organization, this is the position in which the most discretion is exercised...Police discretion, then, can be broadly viewed as the autonomy that individual police officers have in carrying out their tasks and it permeates all police activities...Further, many observers have argued that unchecked police discretion results in discrimination, particularly towards members of ethnic minorities and those citizens of lower socioeconomic status. (Griffiths & Verdun-Jones, 1989, pp. 90-91)

Arrest studies indicate that the police have discretion in resolving disputes, but they want to have expedient resolutions (Bittner, 1976: Matthews, 1970; Bonovitz & Bonovitz, 1981; Teplin, 1984, 1985). The police do not want to have to return to a repetitive situation. It may be that, similar to correctional officers' perceptions of mentally-ill offenders (Kropp et al., 1989), police officers perceive mentally-ill suspects

as being less predictable, less understandable, and more dangerous and, therefore, tend to take conservative action with the mentally-ill -- in this case to lock them up. Teplin (1984) has shown that, at this decision point, the mentally-ill suspects are disproportionately arrested which indicates that there is some bias in the criminal diversion of the mentally ill into the criminal justice system. Not only may there be bias in police decisions due to the characteristics of the mental illness (e.g., unpredictable, irrational), but there may be a bias associated with being part of a mentally-ill subculture when the police resolve disputes.

Court appearance and prosecution

> [O]nce the information has been laid, the justice of the peace must decide wthether to confirm the appearance notice, promise to appear, or recognizance or to conacel it and issue a summons or arrest warrant instead...[T]he critical question arises whether the suspect or accused person should be detained in custody pending trial or whether he or she should be granted bail. (Griffiths & Verdun-Jones, 1989, pp. 190-191)

The justice of the peace has a critical role in determining what will be the immediate consequences to the accused for the charges laid against him. The freedom to await trial in the community rather than having to await trial in jail is decided at this point. Is there a bias in this decision against the mentally ill? There may be reasons why there is a bias, for example, the mentally ill may be more likely not to appear for trial than non-mentally-ill accused. There are no studies that address this issue at the time of first appearance in court.

Nor are there studies on the effect of mental illness status on crown counsel decision-making. The crown counsel has been described as "enjoy[ing] a formidable degree of discretion in carrying out his or her duties in the court process" (Griffiths & Verdun Jones, 1989, p. 251). The crown counsel has discretionary power to determine the laying of charges, to stay proceedings, to withdraw charges, and to plea bargin. Are

the mentally ill treated any differently in this process? One would expect they have been treated differently, however, it is not clear that this decision necessarily results in the criminalization of the mentally ill. Others (cf. Corrado et al., 1989; Miller & Maier, 1987) have noted that it is difficult to persuade the criminal justice system to prosecute cases against the mentally ill, even when it is deemed clinically important for them to receive appropriate criminal justice system consequences for their criminal acts. On the other hand, we do know that the mentally ill have ended up in the criminal justice system for relatively minor offences. Research on these decisions would shed light on this crucial step of criminalization.

However, we do know of some of the effects of these decisions. The next decision point to be identified is the site of those jailed to await trial. Research at this site is found in the present study. The present study did not examine the decision regarding whether to remand a person to await trial or to release him on bail or on his own recognizance. This study did, however, address the issue of whether the mentally-ill have to stay longer on remand as a result of criminal justice decisions or processes. This study found that, on entry, there is a bias in this process. The mentally ill stayed longer on remand than non-mentally-ill remanded inmates, even though there were no differences between groups on the number of charges, the type of charges, or the seriousness of those charges.

Furthermore, as a result of this remand, the mentally ill may receive more criminal justice system consequences, in the form of formal and informal jail punishments, as a result of their disturbed and disruptive behaviour in comparison to "ordinary" inmates. Similar to the findings in Study 1, Adams (1983) found that the former mental patients had committed more prison infractions and received more prison punishments than the ordinary parolees.

Sentencing

> It would be trite to say that the sentencing process is an extremely critical component of the criminal justice system because it single-handedly determines the flow of cases through the various correctional services...As in the case with most criminal justice processes, sentencing is characterized by the exercise of a considerable degree of discretionary power. Indeed, the very breadth of this discretionary power renders sentencing one of the most difficult tasks that confronts the judge in a criminal case. (Griffiths & Verdun-Jones, 1989, pp. 285-286)

Judges have a difficult task before them. Upon conviction, the serious consequences for the criminal acts of the offender has to be determined. There is public pressure, social policy, judicial precedent, and criminal code limitations to be juggled. Not only does the judge have to determine what is good for society (e.g., protection), but he or she has to determine what is good for the offender. It is the judicious use of sentencing options that is the resolution of these competing demands.

The present study also indicates that, in the past, of those entering the jail, the mentally ill had more contacts with the criminal justice system due to less serious offences (e.g., minor theft) than their non-mentally-ill counterparts. The increased criminality of the mentally ill (i.e., the criminal justice system contacts) resulted from them previously entering on a remand order more often than the non-mentally-ill inmates. But the mentally ill did not previously have more convictions or more serious sentences than the others. However, these differences are dependent upon the characteristics of the sample that is chosen at this site. There were no significant previous criminality differences between the mentally-ill inmates and the non-mentally-ill inmates when longer staying inmates were randomly selected from this site. However, an explanation of the differences between the results of Study 1 and Study 2 suggested that the results are consistent with the view that the mentally ill stay longer in jail than the non-mentally-ill, but serve the same amount of time as "bad" offenders.

Beck et al. (1984) found considerable differences between convicted mentally-ill offenders and non-mentally-ill offenders during sentencing. They found that the mentally ill were more likely to be found guilty and more likely to be given more onerous sentences. In the present study, Study 1 found that the mentally ill had served more days in jail under sentence, by the study cut-off date, than the non-mentally ill. But they had not received significantly longer sentences (i.e, cumulative days of sentence) than the non-mentally ill as a result of their convictions.

At the parole site, Adams (1983) also found that former mental patients received longer sentences, had more prior convictions, and had been placed in more secure and onerous criminal justice system settings (e.g., secure custody) than parolees who did not have evidence of a psychiatric history. However, as noted in Chapter III, the former mental patients also had significantly more person and property offences, including more assaults and weapons, in comparison to other parolees, which may account for the longer sentences and more secure custody settings.

Summary

In summary, there is some suggestive evidence that the mentally ill have been criminalized through the decision-making process of the criminal justice system. The present study suggests that the mentally ill have more contacts with the criminal justice system for less serious offences. In addition, at the point of entry, even though the mentally-ill persons who were remanded to jail were no different from the non-mentally-ill on the number and type of charges they entered the jail for, the former group served considerably longer time on remand than did the latter group. Given the negative perceptions that people have about the mentally ill this is not surprising. What is surprising, is the lack of research on these issues.

However, we could expect the criminalization of the mentally ill to occur as a result of the criminal justice systems decision-making. Since, we know the mentally ill do commit crimes and, after that point, they must be involved in the criminal justice system, then we would expect to find the mentally ill in our jails. As noted above, the police, court and other criminal justice system personnel have discretionary power that they use to resolve problems. It is through this discretionary power that process of criminalization becomes more subtle.

It is suggested that criminalization occurs as a result of a (slight) bias in this decision-making process at every site. The result is that, at each point, the mentally-ill offenders are criminalized a little bit more. So, by the time they have flowed through the criminal justice system, they have been subject to a systematic process of criminalization.

From the criminal justice system's, and perhaps society's, viewpoint, this bias and result may seem necessary. The police must resolve issues expediently -- so the mentally ill get disproportionately arrested. The judge must have the mentally ill return for trial -- so they are remanded and denied bail. The judge must protect the community from unpredictable and dangerous persons-- so the mentally ill are remanded. On conviction, the court officers and the judges concur that the mentally ill are in need of protection and enforced treatment, and the community needs to be protected from repetitive crimes (e.g., "dine and dash") -- so the mentally ill get longer sentences. Because the mentally ill have repetitive involvement with the criminal justice system (e.g., longer criminal histories), they receive longer sentences. In probation and parole, release is dependent upon predicting future behaviour, which is seemingly more difficult for the mentally ill, and protecting the public -- so they are denied parole or given more onerous probation sentences. Since these are more onerous conditions (e.g., longer and

with more conditions) it is more difficult for the mentally ill to meet the conditions of their probation or parole (e.g., attend therapy appointments) than it is for other offenders -- so they get breached and re-enter the criminal justice system. These issues are yet to be investigated.

Multiply disordered inmates

Co-occurring disorders

In the present study, many inmates evidenced more than one disorder. [2] In Study 1 a clear pattern emerges. The distribution of alcohol disorder and drug disorder across those who were not mentally ill, those who were schizophrenic, and those who were affective disordered is approximately the same (Table 7.05 & 7.06). Approximately 34% of those without a disorder, 40% of those with a schizophrenic disorder, and 25% of those with an affective disorder had an alcohol disorder; those with drug disorders were 36%, 44,% and 32%, respectively, for those groups. The relation of an antisocial personality disorder to these diagnostic groups was approximately the same: two-thirds of those without a major mental illness and three-quarters of both the schizophrenic and affective disordered groups had an antisocial personality disorder.

The presence of an alcohol disorder was highly related to the presence of APD in all three groups (Tables 7.10 - 7.13). These results suggest that there were groupings of disorders: disorders occur together. There was a significant relationship between having an alcohol disorder and APD within those with an affective disorder: affective disordered inmates were more likely to be both APD and alcoholic, than to be simply

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[2] Cross diagnoses were provided for the inmates who completed the DIS in Study 1 (see Tables 7.05 - 7.13) and on all inmates in Study 2 (see Tables 8.08 -8.17).

alcoholic or APD in addition to their affective disorder. In the schizophrenic group this co-relationship between alcohol disorder and APD only approached significance.

In Study 2 the results are similar. Alcohol, drug, and antisocial personality disorders were equally distributed across the categories of no mental illness, schizophrenia, and affective disordered inmates. Again, there was a significant interaction among the co-occurence of disorders. Across categories, there was a differential distribution of APD with alcohol disorders, such that these two disorders seemed to co-occur in those without a major mental illness and in those with an affective disorder. However, these findings did not hold for the schizophrenics. It is interesting that, for those diagnosed as schizophrenic approximately one-half had an APD and over one-half had an alcohol disorder. It is evident, in the present study, that there were persons who were both "mad" and "bad".

It is clear from these two studies that we had schizophrenics who were equally likely to be purely schizophrenic, to have one other disorder (i.e., an alcohol disorder or APD), or to have both APD and an alcoholic disorder. But in the affective disordered inmates, it was more likely that they would have both an APD and an alcohol disorder. This is not to say that there were not any pure affect disordered inmates: there were some without any other co-occurring disorder, however, it is more likely that this triad of disorders will co-occur in affective disordered inmates in this population.

Jails have a large number of antisocial personalities with, and without, substance abuse problems. Because of the co-occurrence of disorders, we would expect that a significant proportion of this type of inmate would also have an Axis I disorder. For example, in Study 2 there were 62 inmates with an alcohol disorder, but only 4 of the 62 had a pure alcohol disorder. The ratios of the co-occurrence of other disorders within those who had an alcohol disorder is as follows: 22/62 were APD, 4/62 were

schizophrenic, 4/62 were schizophrenic and APD, 7/62 were affective disordered, and 21/62 were affective disordered and APD. Clearly, there were very few simple alcoholics in this population, but a substantial proportion indicated the co-occurrence of alcohol and antisocial personality disorders, and a substantial number indicated a triad of disorders: an affective disorder with an APD and alcohol disorder. Figure 9.1 shows the interaction of these disorders. [3]

Figure 9.1

No MMI				Schizophrenia				Affective Disorder			
No APD		APD		No APD		APD		No APD		APD	
N/A	A	N/A	A	N/A	A	N/A	A	N/A	A	N/A	A
10	4	4	22	3	4	2	4	6	7	10	21

No MMI = no major mental illness, No APD = does not have an APD, N/A = no alcohol disorder, A = alcohol disorder.

Figure 9.1: Interaction of major mental illness, APD and alcohol disorder in Study 2

Figure 9.1 also highlights the problem with diagnosing an affective disorder: only 16/44 had an affective disorder without a co-occurring alcohol disorder. For the other 28 inmates with both an alcohol and affective disorder, it is diagnostically important to determine whether the affective disorder was primary or secondary to the alcohol disorder. It is safe to say that it is likely that not a small proportion of the affective

[3] This is the same as Table 8.14, Chi-square 15.9, df = 2, p = .0000.

disorders would have been secondary to the alcohol disorder. As such, the prevalence rate of primary affective disorder would decrease.

Figure 9.1 also indicates the large proportion of those with schizophrenia (6/13) or affective disorder (31/44) that also had an antisocial personality disorder. The lack of findings of schizophrenia in other criminal populations may have been a result of focusing on antisocial characteristics (see Travin & Protter, 1982) and simply misdiagnosing them as pure APD and not as schizophrenic with an APD. This is true of diagnosing an affective disorder but, in this case, there may be more problems with an alcohol disorder and APD masking the presence of an affective disorder.

The findings of the substantial co-occurence of disorders in this inmate population, from the present research, are consistent with those found in other jail populations (Abram, 1989, 1990; Schuckit et al. 1977). In addition, these findings replicate results found in other research areas but for different populations. There is evidence indicating that schizophrenia and alcoholism do co-exist in some persons (Alterman et al., 1984). As well schizophrenics can suffer from depression (Becker, 1988), and attempt suicide (Drake, Gates, Whittker, et al., 1985). Travin and Protter (1982) state that "some clinicians tend to misdiagnose schizophrenia when there is accompanying antisocial behaviour" (p. 1335). The point is that the patient can both be schizophrenic and have an antisocial personality disorder.

Within those with an affective disorder there is evidence for the co-occurrence of antisocial personality disorder (cf. Reich, 1985). There is evidence that anywhere from 8% to 36% of those with bipolar disorders evidence a co-occurring alcohol disorder (Sullivan, 1984). In hospitalized affective disordered patients, 25% had alcohol and drug abuse disorders (Hansen, Endicott, Collins, et. al., 1985) and, for 15%, their alcoholism was a major interference in their social functioning: they also tended to be

young, lower SES, and in trouble with the law. The evidence for the co-occurrence of alcoholism and APD with affective disorder has led to finer diagnostic distinctions within these groupings. One conception is the affective spectrum disorders (Winokur, 1972) which postulates there is a continuum of depression disorders. What is important for this study is that there are a large category of depression spectrum disorders that is differentiated from other depression disorders by the prominence of antisocial personality disorders and substance abuse (Alarcon, Walter-Ryan & Rippetoe, 1987; VanValkenburg, Akiskal & Puzantian, 1983). Therefore, there are those inmates with a schizophrenic or affective disorder who are also likely to have other disorders that will make their primary disorder more difficult to detect and to treat. For example, if a person with an alcohol problem is admitted to the remand jail in a state of intoxication, it is unlikely that an underlying schizophrenic disorder will be discovered.

There is substantial evidence for dividing antisocial alcoholics into two groups based on the number of depressive symptoms (Whitters et al., (1984); Whitters et al., 1987). Cadoret et al., (1984) found significantly higher rates of depression, mania and psychotic symptoms in antisocial alcoholics than in primary alcoholics. Extrapolating from their data, one can suggest that, among antisocial alcoholics, over 50% could meet the criteria for a major depression disorder, 25% for a manic disorder, and 20% for a psychotic disorder. Garvey and Spoden (1980) found a huge incidence of suicide attempts among hospitalized antisocial personality disorders. Black, Yates, Petty, et al., (1986) found significant amounts of depression among alcoholics, marked by a history of suicide attempts. Khantzian and Treece (1985) found 77% of narcotic addicts met a DSM-III Axis disorder - 60% with an affective disorder, and 65% met an Axis II disorder. Tsuang, Simpson & Kronfol (1982) found a significant increase of dysphoric, manic, and schizophrenic disorders among opiate addicts, as marked by suicide attempts. Murphy, Rounsaville, Eyre, et al., (1983) found rates of 74% for affective

disorders, 2.9% schizophrenia, 35% alcoholism and 27% personality disorders in opiate addicts.

These findings, in other populations, have important implications for the criminal justice system. In the present study, approximately 67% were found to have an antisocial personality disorder, 78% had an alcohol disorder, and 76% had a drug disorder (Study 2). Bland et al. (1990) found similar prevalence rates for these disorders -- 57%, 79%, and 51%, respectively -- in a provincial jail for sentenced inmates. Research indicates that jails are filled by many people with alcohol, drug, and antisocial personality disorders. If this is so, then the research cited above would lead us to believe that a substantial proportion of the jail population will be filled with alcoholics, drug users, and antisocial personalities who also have a serious mental illness.

In summary, the importance of the present research for the criminal justice system is the following. First, there is often a triad of disorders co-occurring: an Axis I disorder with an APD and a substance use disorder. Inmates may be more likely to have "two or three disorders than to have a single disorder" (Abram, 1990, pg 333). Second, the APD and substance use disorder may mask the Axis I disorder making the latter more difficult to detect. Thus, schizophrenia and affective disorders, or any other dehibilitating mental disorder (e.g., a severe anxiety disorder) are likely to be missed on the first presentation of an alcoholic or antisocial inmate. Third, this triad of disorders is often found with affective disorders. Therefore, surveys of mental illness in prison populations may specifically underestimate the prevalence of affective disorders that could need to be treated. Fourth, it is important to determine if the substance use disorder is primary or secondary to the Axis I disorder. This is primarily an issue in affective disorders: it is important to determine which of the alcoholism, antisocial personality or the depression are the primary or the secondary disorders. This

diagnostic information is important because whether or not an inmate receives treatment for their disorder depends upon someone identifying the disorder. Furthermore, the type of treatment provided to the inmates is dependent upon the presence and interaction of other disorders and the primacy of the disorders. For example, treating a depressed alcoholic can be different than the treatment for a person with a major depression disorder who also drinks excessively (Abram, 1990). Fifth, in inmate populations where there is a large incidence rate of antisocial personality disorders and/or substance abuse disorders the criminal justice system should expect a higher prevalence rate of Axis I disorders than found in the general population, and plan accordingly for this fact.

The culturally disordered: Multiple social and psychological disorders and the young chronic patient

Demographic characteristics

The demographic characteristics of subjects in Study 1 reveal an interesting picture. On average, this was a group of young single (57%) males. Most are Caucasian, but nearly one-fifth are Native. Most (60%) had had trouble with the criminal justice system as youths. Despite the fact that, on average, they were moderately educated a large proportion of them were unemployed (82%) and were on welfare (68%). Many had an unstable lifestyle characterized by living in a transient fashion (19%) or in the Main or Granville street hotels or rooming houses of the downtown core (22%). This presents a picture of young unemployed males with few resources and a bleak future.

The high level of unemployment in this group may have had a significant impact on the findings of this study. Bland, Stebelsky, Orr and Newman (1988) studied the relation of unemployment to the prevalence of psychiatric disorders using the DIS, in Edmonton. They found a significant relationship between the two variables. The

unemployed subjects had 1.7 times the rate of any core psychiatric disorders when compared to the employed group. In the unemployed group, schizophrenia was three times more common, an affective disorder was twice as common, and an APD was six times more common than that found in the employed group. Suicide attempts were four times more common in the unemployed group. Their data also indicated that those with any lifetime diagnosis of a psychiatric disorder were, three times more likely to have multiple jobs, five times more likely to have been fired or to have quit a job, and eight times more likely to be frequently late or absent from a job than their non-psychiatric diagnsosis counterparts. In their study 17% of the unemployed group had a major mental illness, while 60% of the unemployed group had at least one type of core mental illness disorder. This would suggest that the larger the proportion of a sample that comes from the unemployed, the larger the proportion we would expect to have a mental illness.

There seems to be a group within the Study 1 sample who represent the transient or homeless young adult male for whom unemployment and social assistance is the norm. In studies of the homeless, in the United States, high levels of social and economic deprivation have been found, as well as, high levels of psychological and psychiatric disturbance, and more prevalence of major mental illness (cf. Fischer, Shapiro, Breaky, et al., 1986; Gelberg et al., 1988; Kroll, Caray, Hagedorn, et al., 1986). Although, as Durham (1989) pointed out, a large proportion of the homeless were not mentally ill, there is still a sizeable proportion (approximately one-third) who do evidence mental illness. Also, this subgroup of the homeless mentally ill do create some unique problems (cf. Bachrach, 1984; Lamb, 1984a) for social service systems. In addition, Gelberg et al., (1988) found arrest rates of 28% to 62% among the homeless: the highest rate was in the homeless who had had a psychiatric hospitalization. The

point is that samples that draw from transient populations are more likely to find higher rates of mental illness than found in other, more stable, populations.

Therefore, if a sample of inmates draws significantly from the unemployed or the transient, as this study does, then we would expect to find higher rates of mental illness and psychological disturbance in the sample.

Psychiatric history:

The prevalence, in the Study 1 sample, of having a positive psychiatric history is quite remarkable. Thirty-five percent of the sample reported having previously seen a mental health professional. Twenty-eight percent reported receiving medication for psychological or psychiatric problems. Nearly 25% had received psychiatric inpatient care and 25% had received psychiatric outpatient care. Approximately 60% of these latter two groups had received both. These rates reflect regular psychiatric contacts. The questionnaire specifically identified and psychiatric contact which had occurred as a result of a trial issue (e.g., insanity, etc.). and this was excluded from the rate of psychiatric history since psychiatric history would then would be confounded with criminal justice system involvement.

These rates suggest that up to approximately one-third of the sample may have had a major mental illness that had been previously recognized by a mental health professional, and for which they had received some sort of treatment. In addition, there are still those in the sample that could have had a major mental illness that had not been identified or treated by a mental health professional. In regards to the earlier discussion of the intersection of the mental health and criminal justice systems, at least one-third of this sample appeared to be represented by that intersection.

In comparison to results of other criminal justice system studies, the present studies rate of a positive psychiatric history is at the upper end of the range for similar studies. At the point of court for sentencin Beck et al., (1984) found 12% of the subjects had a previous psychiatric history. As one would expect, studies at forensic clinics or hospital sites found higher rates: in those studies that reported psychiatric history the rates ranged from 48% (Roper et al., 1985; Yarvis, 1976) to 82% (Bowden, 1976). Jail or prison studies found rates of 17% (Guy et al., 1985) 18% (Roper, 1951; Roth & Ervin, 1971), 29% (Petrich, 1976), and 36% (Swank & Winer, 1976). Jail or prison mental health services studies found rates ranging up to 72% (Swank & Winer, 1976) to 84% (Glaser, 1985) of the sample reporting a positive psychiatric history. Much of this was for hospitalized psychiatric care.

These subjects with both criminal and psychiatric histories, are similar to Steadman, Monohan and associates (cf. Monohan & Steadman, 1983; Steadman, Cocozza & Melick, 1978; Steadman, Monohan, Duffee, et al., 1984, Steadman, Vanderwyst, Ribner, 1978) identification of psychiatric patients with criminal histories versus those psychiatric patients without such a history. These two groups seem to be different on a large number of variables. What is important in the context of this research, is that the former group is more socially disruptive and has repetitive contacts with the criminal justice system (Holcomb & Ahr, 1988) than the latter group. Corrado et al. (1989) have also identified this group of the mentally ill with criminal histories to be very problematic in their management, placement and care. This suggests there will be a subgroup within the mentally ill who will continually enter into the criminal justice system, and cause problems for that system once they enter it.

If a sample draws heavily from those who have a psychiatric history, then we would expect that a sizeable proportion would have a concommitant psychiatric

disorder, and be socially disruptive and disturbing. Since one-third of the subjects in this study reported a psychiatric history, and most of them had a significant involvement with the mental health system (i.e., inpatient care), then there is a sizeable group within this sample who would likely share these characteristics. In the present study we did find a high rate of major mental illness. We also found a high rate of other types of psychological disturbances and behavioural disruption. In summary, having inmates with a history of psychiatric contact will have an effect on the jail where they are located.

Current functioning

Just over one-half of the sample (52%) reported having had a problem with alcohol, the average length of this problem (i.e., eleven years) indicates that this has been a chronic and serious alcohol problem for these subjects. Furthermore, nearly one-half (43%) reported having a current alcohol problem. These figures were matched in the reporting of drug problems: 49% said they had had problem with drugs in the past, and 38% said they had a current problem with drug usage. Again, this has been a chronic (on average six years) and serious problem. Reliance on self-reporting of drug and alcohol problems probably results in underestimates of the prevalence of the problems. In Study 2, 30% to 40% of the sample did not report an alcohol or drug problem to the nurse,on entry, but were discovered to have a substance abuse disorder through the DIS interview. Therefore, we would expect the actual prevalence rates of substance abuse in Study 1 to be higher than those indicated by their self-reports. This high level of substance disorders would suggest a concomitant high level of mental disorders since studies on alcoholics and drug abusers indicate they suffer from a host of emotional and behavioural problems, that are not only induced by their lifestyle but are also reflective of serious underlying mental and personality disorders.

Forty eight percent of the sample reported that they had seriously thought about attempting suicide in the past. Twenty-four percent of the sample reported having actually attempted suicide. Eight percent of the sample stated they were at risk, currently, for a suicide attempt. Clearly, a sizeable proportion of this sample had suffered from an acute psychological disturbance such that they had seriously thought to, or had attempted to, end their life.

Other jail studies have also indicated a significant rate of a history of suicide attempts in their populations. Bland et al. (1990) reported research in Canadian jails and prisons that indicated "the suicide rate in federal prisons was more than eight times the rate in the general population...others have reported rates of suicide in prisons up to 47 times that found in the general population" (p. 407). Bland et al., (1990) found, in a sentenced provincial jail population, that 22.8% percent of the sample had attempted suicide. They also found a significantly higher rates of mental disorders in the suicide attemptor group, including affective disorders and schizophrenia, than in those inmates who had never attempted suicide.

In studies on suicide, research indicates that suicide attempts are a marker of other psychological problems. This includes findings of higher rates of mental illness (Dyck, Bland, Newman & Orn, 1988; Morgan, Burns-Cox, Pocock & Pottle, 1975). For example, Morgan et al. (1975) found rates of 52% depression, 12% psychosis, 29% personality disorder and 10% alcoholism in suicide attemptors.

In studies of people who attempt suicide we find a higher rate of mental illness than in those who do not attempt suicide. Therefore, as the proportion of persons who have attempted suicide increases in a sample, so does the probability of finding individuals with a mental illness. Since, one-quarter of the present sample had attempted suicide in the past, and nearly one-half of them had seriously thought about

committing suicide, we would expect an increased probability of finding mental disorders, including major mental illness, in this sample.

Summary

In summary, this sample is characterized by a low level of functioning. Although, specific social economic status levels (SES's) were not determined, it is clear from their employment and income status, from their living conditions and residence, from their history of mental health problems and current substance abuse problems, that a sizeable proportion of the sample comes from the lower SES groups. This should not be a surprise. These people have problems -- of which criminal justice system involvement is just one.

Overall, this sample's demographic characteristics suggests that a sizeable proportion is a psychologically and socially disturbed group. It is suggested that this subgroup can be identified by having a mental illness and a history of psychiatric care, being transient and unemployed, and having a host of other problems including alcohol and drug abuse and suicidal ideation. This group, deemed culturally disordered, are alienated in the general culture and may be alienated from the regular prison culture.

In addition, do these characteristics represent subgroups within this population? Are there subgroups within this population that are differentiated by level of functioning, for example, based on their descriptions of employment, residence, income, problems, history, reported mental health, etc? And, if there are subgroups, do they have different criminal justice system involvement? For example, does the criminal justice system treat accused or convicted inmates who are alcoholic, have a psychiatric history and have attempted suicide any differently than their non-characteristic counterparts? For the most part these questions are still to be answered.

However, in relation to this, Pepper and Ryglewicz (1982) have identified a group of young males who are mentally ill or emotionally disabled, and who perhaps constitute an important subgroup in criminal justice system populations. Lamb (1984) identified this group as the "new drifters" (p. 465). Pepper and Ryglewicz captured the characteristics of this 18 to 35 year old group as:

> ...our young adult patients present the most dramatic risks, both to themselves and to their communities. They typically present recurrent crises and only intermittent engagement in treatment. As a group, the show: 1) a low rate of hospitalization; 2) a high incidence of use of alcohol and other drugs; 3) a high incidence of suicide attempts as well as of successful suicides; 4) a high incidence of conception of children, who become our next high-risk generation; 5) a sizeable incidence of law violations involving violence; 6) for the majority, a history of mental health treatment before age 18; and 7) for the majority, a high or total degree of financial dependence on public assistance programs or on family. These are some of the characteristics that make this new, uninstitutionalized generation a high-risk, high-priority, and high-anxiety group, both for professionals and for the public. (p. 390)

Given these characteristics it is likely that any jail population will have a sizeable proportion that comes from this group. Evidence for this specific type of offender needs to be gathered and other types of offenders need to be identified.

Methodological issues in the present study

Chapter Four reviewed basic methodological issues in the research in this area. The present study highlights some of these issues.

As suggested above, sample characteristics affect results. Site characteristics do influence the prevalence rates of mental illness we would find within a particular sample. Site characteristics reflect both the demographic characteristics of its location -- this site was located in a downtown section of a large city -- and the criminal justice system characteristics indicated by its purpose -- this site was a remand jail. In regards to the latter issue, as noted above, a remand jail can be a place to hold a person while

the court decides what to do with him or to ensure he will appear before court on his trial date. These characteristics may be sufficiently different from other criminal justice system sites to lead to differences in results between sites. The results of this study are different from the Bland et al. (1990) study of provincially sentenced prisoners.

The sampling procedure also influences results. Study 1 and Study 2 had different sampling procedures which clearly resulted in different types of samples. Both the epidemiological results and the results of comparing mentally-ill to non-mentally-ill inmates were different between the two studies. These issues were discussed above, but the differences between the two studies due to two different sampling methodologies are important -- in and of themselves. This points out that the vagaries of results among different studies can reflect methodological differences. It is very important when discussing the prevalence rates of mental illness at a jail site to know how the sample was drawn. Even though the inclusionary criteria of these studies were similar -- they were both drawn from a non-referred general inmate population -- the fact that one was based on consecutive admissions and the other on a stratified random sample influenced the results. [4]

As noted in Chapter IV diagnostic criteria and methods do influence results. In this case, only one rater was involved in taking the demographic information, rating the presenting psychopathology on the BPRS, and completing the Diagnostic Interview Schedule and determining the diagnosis. There is the problem of reliability in using one

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[4] It has been suggested that the results from Study 2 were considerably biased by the sampling technique of that study. The sampling technique was influenced by the fact that it was more likely, over time, to choose inmates who had a mental illness, as well as the, stratification led to sampling from sub groups with a large likelihood that mental illness would be found. It has been suggested that because of the sampling characteristics of Study 2, that the results from Study 1 on the hypotheses are more important than the results from Study 2. Thus much of the ambiguity in the results would diminish.

rater. This was offset by using a standardized interview schedule with a rater experienced with forensic populations. But this still is an issue. Two raters were used in coding the criminal history information: reliability concerns were kept to a minimum by the coding scheme which simply focused on accounting procedures such as frequency counts of charges or determining the length of time spent in prison.

Diagnostic criteria problems were kept to a minimum through the use of the DIS. However, there was one issue of note. In study 2, as was discussed above in the section on multiple disorders, there was a very high rate of affective disorders. One explanation for this result is that, for some of these inmates with a reported affective disorder and an alcohol disorder, the affective disorder was secondary to the alcohol disorder, despite the fact that the DIS specifically asks the respondent if the presence of a symptom is due to alcohol or drug usage, and thus seemingly excludes depressive symptoms secondary to an alcohol disorder. However, it may be that these inmates responded positively to a depressive symptom being independent of their alcohol use when, in fact, it was not. The truth of this cannot be determined in the present study and, in fact, is a problem for all epidemiological studies -- whether they use a structured interview or not. The interview method clearly emphasizes the need to determine if the symptom is primary or secondary to another disorder, and that was done in this study. This problem of whether the prevalence of affective disorder in Study 2 reflects primary or secondary depression is perhaps best dealt with in identifying those with co-occurring disorders (e.g., affective and alcohol disordered) and those with single disorders (e.g., only major depression).

This issue leads to that of the diagnostic categorization of major mental illness as defined by both psychotic and affective disorders. This designation was used because

Teplin (1986) had used this definition in her study on prevalence of mental disorders. These two disorders are quite different, and the result of grouping schizophrenics with those with major depression or a bipolar disorder may confound differences in findings. It may be that schizophrenics have different criminal histories, etc., from those with major depression, and from those with no major mental illness. The present study did not examine this.

The most problematic methodological issue in the present study resulted from the diagnostic procedure in Study 1. The practical constraints of Study 1 did not allow for the use of the DIS with all subjects. Thus, the diagnostic procedure identified subjects with a high risk, or a high probability, for mental illness based on "markers" of mental illness and then used the DIS with this selected group. This is similar to other studies that have used markers of psychological or mental disturbance and done follow-up procedures on subjects identified by those markers. As was noted in the Method chapter, the markers were liberally applied so as to spread a wide enough net to capture all subjects with a major mental illness. The method section presented the reasoning, and the supporting data, to defend the determination of a group with major mental illness (MMI group) as opposed to a group without major mental illness (Not MMI group).

However, what are the problems that arise from this procedure? It could be speculated that the procedure missed a particular type of major mental illness. For example, the differences in the prevalence rates for affective disorder between Study 1 and Study 2 could be a result of the procedure in Study 1 missing those likely to have an affective disorder. Thus, the identified rate of affective disorder in Study 1 would be an underestimate of the "true" prevalence rate. This could also explain the differences in results between Study 1 and 2 regarding the comparison of mentally-ill and non-mentally-ill inmates on the dependent variables. For example, with this reasoning, if

Study 1 had identified more affective disordered inmates, up to the levels found in Study 2, perhaps the differences found between the mentally-ill and non-mentally-ill inmates in Study 1 would have disappeared. This would only have happened if the missed affective disordered inmates that were placed in the NOT MMI group were very different from the affective disordered inmates in the MMI group. There is no reason to believe this is true. In fact, as noted in the Method section, if there were true differences between inmates in the MMI group compared to those in the NOT MMI group, then the effect of missing MMI inmates and placing them in the NOT MMI group would be to decrease the statistical differences between groups. Thus it would be more difficult to support the hypotheses. The converse is also true: if there were true differences between groups, then the effect of placing non-mentally-ill inmates in the MMI group would be to make it more difficult to support the hypotheses. If there were no true differences between groups, there would be no effect of the missing MMI inmates on the probability of finding statistically significant differences between groups.[5]

Conclusion

Criminalization

Are the mentally ill criminalized? Some would simply say "yes" but the answer is more complex than that.

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[5] It could be suggested that this is what occurred in Study 2. It could be hypothesized that the Study 2 MMI group contained a large number of subjects who did not have a primary major mental illness. These misdiagnoses could have occurred in the diagnosis of affective disorder. If the placement of a substantial proportion of those who were identified as having a major mental illness -- affective disorder -- but did not truly have a primary affective disorder, then the result of this would make it more difficult to support the hypotheses in Study 2.

This document began started with a review of deinstitutionalization. It is likely that similar social policy changes have resulted in more persons with major mental illness entering the criminal justice system. The lifetime prevalence rates of mental disorders found in inmates of Study 1 and Study 2 indicated much higher rates of all mental disorders, as diagnosed by the DIS, in this jail. These include much higher rates of schizophrenia and affective disorder in the jail samples than those found in the general population. If the disproportionately high presence of the mentally ill in the criminal justice system indicates criminalization, then the present study supports the fact that the mentally ill have been criminalized.

Some could argue that this result is appropriate. If the mentally-ill commit crimes then they should be dealt with, and contained, by the criminal justice system. However, at this point the criminalization issue becomes more complex. Criminalization was defined, in Chapter II (see pages 12 & 13) as:

> [1] the shunting of the mentally ill into the criminal justice system instead of the mental health system (Lamb, 1984, p. 905)...[2] the use of the criminal justice system to control socially unacceptable behaviour which occurs as a result of a mental disorder...[and] [3] that the criminal justice system treats the mentally ill differently than other offenders.

The present study cannot answer the issue of whether the mentally ill have been put into the criminal justice system, in this case a remand jail, instead of the mental health system. Nor can it answer whether or not the inclusion of the mentally ill into this remand jail was a result of controlling socially unacceptable behaviour directly resulting from their mental illness. The cause of the criminal act was not addressed. However, it can comment on the last component of criminalization.

The fact that, in the present study, the mentally ill had, in their criminal histories, more entries into the criminal justice system, especially for more minor offences (e.g., minor theft) than other offenders, suggests that the criminal justice

system has treated them differently in the past. The fact that these entries and charges resulted in more remand entries and a longer time in jail under a remand order than non-mentally-ill offenders is important.

Remand is an option used with a great deal of discretion by the Court. It can also be the Court option most susceptible to bias. There are very few safeguards attached to remand decisions. While trial issues and sentencing come under the scrutiny of the opposing counsels in court, remand is deemed less important and, consequently, may be less vigorously examined. It is clear that remand is used for the purpose of the Court -- to ensure that the accused appears before Court and the community is kept safe during this period if the accused is deemed dangerous. In Study 1, the mentally ill were found to have committed more breaches in their criminal histories, primarily due to a failure to appear in court, than the non-mentally-ill group; although this difference did not reach significance. This difference was also found in their current criminal charges, albeit even less significantly. They also had repetitive criminal histories. It could be that this history, which may be due to their mental illness, resulted in them being more likely to be remanded to await trial than the non-mentally-ill accused.

More importantly, Study 1 indicated that even though the mentally ill had not been accused of more offences, nor were they accused of more serious offences they served twice as long in jail, on remand, than the non-mentally ill entries. They had also spent more time in custody under sentence by the cut-off date than the others. This was notwithstanding the fact that the mentally ill only received slightly more and slightly longer custodial sentences than the others. Thus, at this level, the mentally ill were being criminalized: there was a bias in the system so that, for similar charges, the non-mentally-ill inmates remanded to await trial spent one-half as much time in jail than the mentally-ill inmates.

Another type of criminalization is found in that, in general, the mentally ill in Study 1 received more formal prison punishments as a result of identified infractions within the jail as compared to other inmate entries. They also received more informal punishments as a result of correctional officers resolving disruptive and problem situations.

In summary, the prevalence of mental illness was substantially higher in this jail than in the general population. This points out that a disproportionate number of mentally ill had entered the criminal justice system at this site. Secondly, there is some evidence that the mentally ill were treated differently by the criminal justice system. Both results could have arisen from the mentally ill not receiving the treatment they need -- they were not in care.

The mentally ill need a broad range of services and resources for the identification and care of their mental illness that would decrease the chances of their involvement with the criminal justice system. Corrado et al. (1989) reviewed a community mental health project that directly dealt with the problem of the mentally ill entering the criminal justice system, especially at this site, that had been due to the lack of providing mental health and other social services. This multi-service network provided services for mental patients who were characterized by: being unemployed and on social assistance, not being manageable, engaging in substance abuse, having poor hygiene and self-care, having multiple psychiatric disorders, being violent and aggressive to themselves and to others, and having a lengthy criminal history. Corrado et al. (1989) found that it was difficult for community agencies to provide the necessary service and amount of care so that the mentally ill did not create problems for themselves or others. As well, it was indicated that there was reluctance on the part of the criminal justice system to provide appropriate consequences and sanctions for these

patient's criminal acts. Since community social systems found it hard to deal with these people -- they are aggressive and hard to manage -- , then we should expect that, when these people enter the jail door, the criminal justice system will have the same problems with them. As Freeman and Roesch (1989) noted:

> These patients present a challenge to the justice system and to the mental health professional that is not easily met and is as yet only partially recognized. Until the extent of the probem is better delineated and creative solutions found, it seems likely that mentally ill offenders will be as much at risk from society as they will be a risk to society. (p. 114)

Future issues

There are questions regarding the criminalization issue. Replication of research at sites already researched and research at sites that have not been examined needs to be conducted. This research could focus on investigating both the presence of the mentally ill at the site (i.e., prevalence rates of mental disorders) and the decisions being made at that site with respect to the consequences for the mentally ill at different stages in the criminal justice system. Methodological characteristics of these studies (such as sampling characteristics, diagnostic proceedures) need to be carefully considered as they may affect results, as they did in the present study.

Another issue to be addressed arises from the complexity of the mental illnesses that offenders may have. There were large numbers of people suffering from mental disorders in the jail used in this study. These results suggest there are four major groups of offenders: those who are psychotic, those who have an affective disorder, those who have an antisocial personality disorder, and those with none of these disorders. These groupings are complicated by the fact that many offenders have multiple disorders: there are few who have single or pure disorders. For example, many offenders may have a major mental illness, as well as, an antisocial personality disorder and/or a substance abuse disorder.

Co-occurring disorders create a number of problems. They make it more difficult to understand the relationships of mental illness to criminal activity, and mentally-ill offenders to the criminal justice system. In addition, those with co-occurring disorders are more difficult to treat and have a poorer prognosis. Some of the mentally-ill offenders' offences are due specifically to their mental illness (e.g., due to directive hallucinations). But there is a larger group of mentally-ill offenders who have a more general or diffuse psychopathology, with a myriad of psychological problems, that result in a lifestyle and behaviors that get them into trouble with the law. They have disruptive and disturbed lives, they live on the fringes of society, and they find themselves being inadequately prepared to deal with the rigorous of community life. They end up in jail where they are disruptive and disturbed, inhabit the edges of the inmates social strata, and are inadequate in their responses to the demands of jail life. Not only are the mentally ill socially dysfunctional within the general population, they evidence a similar disturbance and alienation within offender popluations.

There is a large proportion of inmates who have a triad of disorders: a major mental illness, an antisocial personality disorder, and an alcohol or drug disorder. These stand in marked contrast to those who simply have an antisocial personality disorder and/or an alcohol or drug disorder. As mentioned, this is a problem because, for example, in those with major depression, the co-occurrence of an APD worsens their prognosis considerably. The same is true of those with an alcohol disorder with an additional APD. Not only is the mental health of these multiply disordered inmates unlikely to improve, but their "criminal health" is unlikely to improve -- they are likely to relapse.

These issues suggests a possible need for identifying subgroups of offenders based on their criminal history, social and occupational functioning, current and past

mental health, and current problems. A classification system deriving from these characteristics could be useful and relatively inexpensive. Its usefulness would depend on the accuracy of the classification and reliability of that determination, but more importantly, it would depend on the predictive validity of the classification. For example, would it help in decision-making? Could it identify high risk inmates in the jail? Could it provide information that would be useful in differential diagnosis and the corresponding treatment of different multiple disorders? Would it be predictive of problems in jail -- both with other inmates and with the staff? Could it predict, and therefore prepare, medical and psychological service utilization?

Another issue that has not been addressed is the prevalence of Axis II disorders and the relation of them to criminal characteristics, criminal outcomes, and jail performance. Given the large number of psychological problems these persons have, it is likely that many are suffering from other types of personality disorders. It is likely that there are very high prevalence rates of borderline, narcissistic, passive-aggressive, explosive, schizoid, etc., personality disorders. Other researchers (see Tables 3.1 to 3.5) have found variously large prevalence rates of these personality disorders in this population. It is likely that there are many inmates with a personality disorder of some kind. In addition, it is likely that there are very few inmates who either have no mental disorder or have a pure disorder when we include the personality disorders in the diagnostic results. At this point, does it become meaningless to talk about offenders having a mental disorder if most of them have a mental disorder?

It is important to note that we must make a differentiation between diagnostic groups. Schizophrenia is a very different disorder from the affective disorders or the personality disorders. It is likely that the effects of schizophrenia will have more of an impact on the criminal justice system proceedings than will the effects of the other

mental disorders. For example, fitness and insanity issues are more likely to be raised in the case of a schizophrenic individual. In addition, we need to look at the co-occurrence of disorders in order to interpret results. For example, within those with schizophrenia or an affective disorder, there may be distinct groups based on whether or not they have an APD, which could then affect results (e.g., types of crimes committed, bail and remand hearings, criminal histories, performance in jail, criminal outcomes, etc.).

Criminal justice system issues

The large numbers of seriously mentally-ill inmates and inmates with other types of mental illness have an enormous impact on the criminal justice system. These people enter with a whole host of problems. This is the system that can't say no: it has to take offenders with these problems into its institutions.

The number and proportion of mentally-ill offenders lead to important clinical issues. Identification of mental illness is problematic, especially in this population. It is not so much of a problem when the mental illness is blatantly obvious, for example, a known schizophrenic entering with persecutory hallucinations. However, the characteristics of APD and/or alcohol and drug disorders may mask major mental illness. Also, the inmate may not be suffering at that time from their mental illness: either they are in remission or their symptoms are subdued. But subsequent incarceration may induce enough stress, or they may "dry out" enough, for the mental illness to become manifest. Given the complexity of multiple disorders and differential presentation of the symptoms, it is easy enough for the screening physician, psychiatrist, or psychologist to misdiagnose their symptoms. For example, schizophrenia may be hidden by a presenting alcohol or drug disorder; an affective disorder can be hidden by an antisocial personality disorder co-occurring with an alcohol disorder.

Mental health treatment of these mentally-ill offenders is also problematic in jail. What occurs is that mental health treatment is needed for very disruptive and disturbed individuals who probably do not want treatment. The present study indicated a significant increase in utilization of medical and mental health services by those who were identified as suffering from a major mental illness.

In addition, the differential treatment of choice is determined by the identification of the co-occurring disorders. We have different treatments for different subgroups. For example, the risk of suicide is different for those with depression and have a drinking problem in comparison to alcoholics who are depressed. The determination of whether depression is primary or secondary to the alcoholism leads to different treatment strategies.

There are management issues: we know that these are difficult persons to manage. In addition, these high risk groups for mental illness bring a host of other management problems. If we have large numbers of antisocial personalities and/or alcohol and drug disordered persons -- as jails do -- then there is going to be an increased probability of having inmates at risk for suicide, depression, acting-out, and major mental illness. It is going to be expensive to adequately screen inmates on entry because diagnosis in this group is difficult. These inmates will be more expensive to serve: they need more mental health and health services. They will use up professionals' time. They will also create more problems in jail. It costs more to the system to keep people in segregation cells or in hospital beds within the jail than it does to keep them in within the general inmate population.

Since these inmates are more problematic, there is a "wear and tear" factor for the staff. Staff will need more support for managing mentally-ill offenders. The criminal justice system cannot get rid of the bulk of these mentally-ill offenders because, for the

most part, their mental illness does not have a direct legal bearing on why they are in jail. They are unlikely to referred elsewhere for insanity or fitness issues, and even if they are, one-third will be returned (Roesch et al, 1989). Staff will need training so they can understand the behaviour they see, resolve disruptive situations, and determine the inmate's risk to himself or others.

Finally, there are social policy issues inherent in why the mentally-ill are in jail. We suspect that the large numbers of mentally ill in jail, specifically those with schizophrenia, are due to changes in social policy. We know that deinstitutionalization has resulted in an increased number of mentally ill who are living in the community, but they are not receiving active care. Stricter civil commitment laws resulted in it becoming harder for social agencies (e.g., the police) to reinstitutionalize someone. The burden of care has been shifted to the community mental health services and social welfare agencies. This is more expensive than institutional care and these patients' needs create demands that cannot be met by existing service levels. Many mentally ill do not want to be in care and, for many, their disorder makes it unlikely that they will keep themselves in-care. So where do they go? It is clear that some go to jail.

It could be that the high prevalence rates at the time of the study, especially in Study 2, may be due to extraneous societal events. At the time of Study 2 there was a world exposition in Vancouver (Expo 86) that resulted in a number of temporary social changes: an influx of vagrants, an increase of homelessness as renters from low-rent downtown hotel rooms were evicted in anticipation of the expected tourist trade, and the effort of the city (and the police) to clean up the downtown core area. All these factors put pressure on the community to put the mentally ill out of sight and out of mind.

However, for the most part, the lifetime prevalence rates of mental disorders in both Study 1 and Study 2 fall within the ranges of other jail studies. It is likely that the mentally ill in the criminal justice system are there to stay. Further criminalization of these persons will be dependent on our response after the mentally ill enter through the jail door.

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