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The demographic profile, substance use, competence to stand trial and criminal responsibility among " Observation Patients" admitted for forensic psychiatric evaluation at Sterkfontein Hospital, Gauteng, South Africa.

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THE DEMOGRAPHIC PROFILE, SUBSTANCE USE, COMPETENCE TO STAND TRIAL AND CRIMINAL RESPONSIBILITY AMONG "OBSERVATION PATIENTS" ADMITTED FOR FORENSIC PSYCHIATRIC EVALUATION AT STERKFONTEIN HOSPITAL, GAUTENG, SOUTH AFRICA

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A Research Report submitted to the Faculty of Medicine, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Medicine in the branch of Psychiatry

Johannesburg 2011

DECLARATION:

I, Anben Pillay declare that this research report is my own work. It is being submitted as a part fulfilment for the degree of Masters of Medicine in Psychiatry in the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University

Signed _____day of _____ 2011

In memory of my mother

Goonarathnum Pillay

1938 - 2005

ACKNOWLEDGEMENTS:

I would like to thank the following institutions and people:

1. The University of Witwatersrand for providing me the opportunity of pursuing postgraduate studies in the Department of Psychiatry.

2. Professor R.G.M. Thom, my supervisor for her meticulous supervision, useful advice and keen interest shown in my project.

3. Professor M. Vorster, my co-supervisor for her invaluable advice and encouragement in undertaking this project.

4. Professor F.J. Jeenah, the Head of the Psychiatry Department, University of the Witwatersrand, and my mentor for her encouragement and guidance throughout my registrar training in the department.

5. The staff at the Department of Forensic Psychiatry at Sterkfontein Hospital, for their support, co-operation and patience.

6. My wife Romiela for her assistance in statistically analysing the data obtained, together with my children, Nikita and Shaylan, for their unflagging moral support.

ABSTRACT

Introduction

A review of the literature indicates that young males, who are unemployed with low levels of education, predominate in populations of pre-trial criminal offenders suspected of having a psychiatric illness, also known as "Observation Patients" according to the Criminal Procedures Act of 1977 in South Africa. Other contributory factors include a history of mental illness and non-compliance on psychiatric medication, a previous forensic history, co-morbid substance abuse and being intoxicated at the time of the offence. Dual diagnosis is considered a key contributor to criminal behaviour in this group of patients. The review of the literature also shows a significant proportion of co-morbid intellectual disability among offenders found to be psychiatrically ill at the time of the criminal event. A previous study conducted 20 years earlier, in 1986 at the Sterkfontein Forensic Psychiatric Unit by Vorster (1986) showed that the typical profile was a single, unemployed, poorly educated male in his twenties, usually with a history of psychiatric treatment. This typical profile confirmed the evidence in the literatures at the time of the study.

Rationale for the Study

Since the study by Vorster in 1986 there have been no recent data available on the demographic profile, source of referral, psychopathology, criminal offence, competence and responsibility of Observation Patients admitted to the Forensic Department of the Sterkfontein Hospital. This study seeks to determine the current demographic and clinical profile of Observation Patients at Sterkfontein Hospital, to provide information on substance use in this group, as well as to document the outcome of psychiatric evaluation. According to the Criminal Procedures Act,

awaiting trial prisoners, referred to as Observation Patients, are admitted for a thirty-day period for psychiatric evaluation.

Objectives

- To determine the demographic profile of Observation Patients at Sterkfontein Hospital.
- To determine the source of referral of Observation Patients.
- To determine the profile of criminal charges among the Observation Patients.
- To determine the clinical profile of mental illness among Observation Patients.
- To determine the outcome of the observation period in terms of competence and criminal responsibility for each Observation Patient.
- To determine the use of substances among Observation Patients.

Methods

A descriptive retrospective study of clinical records was conducted using a structured data collection form. The study population consisted of all defendants who had completed 30 days psychiatric evaluation and observation over a three year calendar period, 1ST January 2002 to 31ST December 2004. The study sample consisted of all patients, both men and women over the age of 18 years old, who were admitted for forensic psychiatric evaluation during this period. The sample size included 732 clinical records of Observation Patients.

Results

The results of the study were found to be consistent with other similar international and local studies. The typical demographic and clinical profile of Observation Patients

admitted for a thirty day forensic psychiatric observation at Sterkfontein between 2002 and 2004, was that of a young, single male, unemployed, in his twenties, with a history of mental illness and of non-compliance on psychiatric medication, a previous forensic history, as well as significant use of substances, especially alcohol. Half of the sample used/abused substances. Violent offences were three times more prevalent than non-violent offences and included sexual assault, murder and assault to cause grievous bodily harm. The Observation Patients who were found to be intoxicated at the time of the offence were significantly more likely to have committed a violent crime and to have committed an offence involving a family member. They were more likely to have been found to be competent to stand trial and were more likely to be found responsible for the offence committed. Those found competent to stand trial, but not intoxicated at the time of the criminal event, were more likely to have committed a non-violent crime. Those found to be criminally responsible were more likely have had a previous forensic history and to have committed a violent offence.

Conclusion:

This study provides recent evidence on the demographic profile, substance misuse and outcome of psychiatric observation among Observation Patients admitted to the Forensic Unit of the Sterkfontein Hospital, Gauteng, South Africa.

DEFINITIONS

1. **Section 79(2)** of the **Criminal Procedure Act of 1977** provides for referral of awaiting trial prisoners for 30 days psychiatric observation at a state psychiatric hospital. The primary enquiry is directed at establishing the presence of mental illness or disease of the mind', or mental disability (which practically encompasses mental retardation and dementia). **Mental illness** means the positve diagnosis of a mental health related illness in terms of accepted diagnostic criteria made by a mental health care practitioner authorised to make such diagnosis. **Section 77** requires that the defendant be tested for fitness to stand trial' (competence), and **section 78** directs that the assessment consider whether the mental illness or disability interfered with the defendant's appreciation of wrongfulness, or his ability to act in accordance with such an appreciation at the time of the offence.

2. **Defendant/ Offender** is any party who is required to answer the complaint of a plaintiff or pursuer in a civil lawsuit before a court, or any party who has been formally charged or accused of violating a criminal statute

3. **Observation patients** in South Africa are awaiting trial prisoners who are referred by the court in terms of section 79 of the Criminal Procedure Act for 30 days of psychiatric observation. The referral is based on a number of factors such as, past psychiatric history, strange behaviour in court, testimony from the family, request by the defendant or pre-trial assessment by a doctor.

4. After the observation period, if the court finds the defendant unfit to stand trial, or not criminally responsible as a consequence of mental illness, the court orders the defendant involved in serious crimes (murder, rape, assault, robbery etc.) be detained at a mental institution as a **“State Patient”**

5. **Competency evaluation** is an assessment of the defendant's ability to understand and rationally participate in a court process. An evaluation of a defendant's competence to proceed to trial.

6. **Criminal responsibility** is based on the defendants’ mental state at the time of the alleged offence

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1 CHAPTER ONE: INTRODUCTION

1.1 Section 77, 78 and 79 of the Criminal Procedure Act (1977) – South Africa

Psychiatric illness can impair an accused's ability to follow court proceedings and may interfere with his or her capacity to appreciate wrongfulness or act in the accordance with such an appreciation at the time of an offence. Section 79(2) of the Criminal Procedure Act Of 1977 in South Africa provides for referral of an awaiting trial prisoner for a 30-day psychiatric evaluation to a state psychiatric hospital. The primary enquiry is directed at establishing the presence of mental illness (which is defined in the Mental Health Care Act of 2002 as a diagnosis of a mental health related illness in terms of accepted diagnostic criteria made by a mental health care practitioner authorised to make such diagnosis. Section 77 of the Act requires that the defendant be tested for fitness to stand trial (competence), and section 78 of the Act directs that the assessment consider whether the mental illness or disability interfered with the defendant's appreciation of wrongfulness, or his ability to act in accordance with such an appreciation the time of the offence.

1.2 Observation Patients

Observation patients are awaiting trial prisoners who are referred by the court in terms of section 79 of the Criminal Procedure Act for 30 days of psychiatric observation. The referral is based on a number of factors such as, past psychiatric history, strange behaviour in court, testimony from the family, request by the defendant or pre-trial assessment by a doctor. During the observation period the defendant is assessed for a

mental illness or defect, competence to stand trial and criminal responsibility, according to section 77 and 78 respectively of the Criminal Procedures Act.

1.3 Competency Evaluation

Competence to stand trial is evaluated by the defendant's ability to follow court proceedings and to assist in his/her defence. The defendant is evaluated in terms of his understanding of the charge, what happens in court, the roles of the various court members, the defence of a not guilty plea, and the implication of a guilty verdict. Factors impacting on competence include cognitive impairment, active psychosis, mania or severe depression.

1.4 Criminal Responsibility

Criminal responsibility is based on the defendants' mental state at the time of the alleged offence. It is also determined by whether the defendant could appreciate the wrongfulness of the act, and whether the defendant had the ability to act in accordance with such an appreciation of wrongfulness.

1.5 30 – Day Observation Period

The 30 day observation period is a psychiatric assessment of the defendant and is conducted from a multidimensional perspective. This implies that all relevant factors are taken into account such as the defendants psychiatric history, personality, full mental state examination, physical and mental condition at the time of the criminal event, the nature of the offence, the motivation for offending, relation to and

interaction with the victim, the harm suffered by the victim and society, as well as the precipitating and situational factors contributing to the criminal event.

A full multi-disciplinary team at the Forensic Unit at Sterkfontien Hospital manages the defendants, which include psychiatrists, psychologists, occupational therapists, social workers and nursing staff. Psychologists perform IQ, neuropsychiatry and personality testing. The social worker obtains collateral that is important in determining criminal responsibility. The occupational therapists are often called upon to perform functional assessments. Depending on the severity, if the defendant is found to have a mental illness or defect, psychotropic medication is commenced.

At the end of the observation period a report in terms of the Criminal Procedures Act is written and signed by a qualified psychiatrist of the multi-disciplinary team. Three psychiatrists (and occasionally a psychologist) must assess and sign a report in cases where the offence involves serious violence, such as murder, rape, and armed robbery.

After the observation period, if the court finds the defendant unfit to stand trial, or not criminally responsible as a consequence of mental illness, the court orders the defendant involved in serious crimes (murder, rape, assault, robbery etc.) to be detained at a mental institution as a “State Patient” in terms of section 42 of the Mental Health Care Act of 2002. The court can also order the defendant in cases where the offence does not involve a the positve diagnosis of a mental health related illness in terms of accepted diagnostic criteria made by a mental health care practitioner authorised to make such diagnosis serious offence to either be detained in

the general wards of a mental institution in terms of section 33, (involuntary mental care use), of the Mental Health Care Act of 2002 or to be treated as an outpatient.

The Observation period for psychiatric evaluation and assessment can reduce the likelihood of recidivism and is important in reaching correct decisions regarding sentencing, management and treatment of offenders suspected of being psychiatrically ill at the time of committing an offence.

1.6 State Patients

State patients are people who have committed an offence and who have been found to be unfit to stand trial or not criminally responsible as a result of mental illness. State Patients at Sterkfontein Hospital are managed in separate wards in the forensic unit. They are treated like any other involuntary mental health care user. However the conditions of their release are different as determined by Section 42 of the Mental Health Care Act No 17 of 2002.

Currently no recent data is available on the demographic profile of Observation Patients admitted to the Forensic Unit of Sterkfontein Hospital. Also lacking is information on the important sources of referral of the offenders, their psychopathology, and their use of substances at the time of the offence, and the outcome of the observation periods in terms of competence and criminal responsibility.

A study conducted at the Sterkfontein Psychiatric Forensic Unit by Vorster (1986) showed that the typical demographic profile of an Observation Patient was that of a single, unemployed, poorly educated male in his twenties, usually with a history of psychiatric treatment. This was consistent with findings in international studies. It also showed that 73% of the sample was fit to stand trial and that the presence of a mental disorder was not always associated with incompetence to stand trial.

1.7 Aim of the Study

The aim of this study was to determine the demographic and clinical profile, the profile of criminal charges, as well as the outcome of the 30-day observation period. Observation Patients admitted for 30 days psychiatric evaluation to the Sterkfontein Psychiatric Hospital in Krugersdorp, South Africa, over a three year calendar period, 2002 to 2004.

1.8 Objectives of the study

The objective of the study was:

i. To determine the demographic profile of Observation Patients at Sterkfontein Hospital.
ii. To determine the source of referral of Observation Patients.
iii. To determine the profile of criminal charges amongst the Observation Patients.
iv. To determine the clinical profile of mental illness among Observation Patients.

v. To determine the outcome of the observation period in terms of competence and criminal responsibility for Observation Patients.

vi. To determine the use of substances among Observation Patients.

1.9 Intended Outcome of the Study

The study has provided important and updated new statistics on Observation Patients admitted at the Forensic Unit of Sterkfontein Hospital for 30-day psychiatric evaluation over a three year calendar period. This includes the demographic profile, psychopathology, types of offences committed, substance use/abuse, criminal capacity and criminal responsibility.

The results of the study have been made available to the hospital management, the Gauteng Health Department, and other policy makers, to contribute towards the provision of services of Observation Patients at the hospital.

2 CHAPTER TWO: LITERATURE REVIEW

According to the Department of Correctional Services Annual Report (2000/01) the assessment of offenders in South Africa is key to their personal growth, development and rehabilitation. Therefore a proper assessment has to include knowledge of the criminal mind and crime, motives, causes, modus operandi, identification of risk factors and a theoretical explanation of criminal behaviour. Thus offender assessment is a systematic and dynamic process that evaluates offenders for appropriate intervention.

2.1 Process of Observing Offenders

In South Africa if an awaiting trial criminal offender is suspected of having a psychiatric illness or there is reason to doubt the offender's capacity and/or competency, the court may order the offender committed to a hospital or other suitable facility for a period of time necessary to complete a necessary psychiatric evaluation. An individual is considered suffering from some form of mental disease or defect when his or her exhibited behaviours or feelings deviate so substantially from the norm as to indicate disorganized thinking, perception, mood, orientation, and memory. The psychiatric evaluation is made by qualified mental health professionals, guided as in most countries by the *Diagnostic and Statistical Manual of Mental Disorders (DSM- IV-TR)* which defines mental disorders in terms of descriptive symptoms and behaviours. Mental health professionals use this comprehensive or holistic approach to evaluate offender behaviour, to provide an accurate diagnosis, prognosis and an effective treatment plan. Although psychiatric evaluations according

to *DSM-IV -TR* are made on a five multi-axial formulation, it is not unusual to see reports that only specify a mental disorder on Axis I or a personality disorder on Axis II. These include brain damage (commonly referred to as organic brain syndrome) which may result in a host of different symptoms that may be classified on Axis I or Axis II of the DSM Classification system.

Some of the common characteristic of awaiting trail prisoners suspected of having a psychiatric illness includes:

- Odd or bizarre behaviour in court
- past or present substance abuse, including alcohol abuse;
- history of violence or threats of violence;
- past involuntary psychiatric commitments;
- persecutory delusions;
- acute psychotic episode(s);
- history of borderline, antisocial, or paranoid personality disorder;
- history of medication noncompliance;
- history of suicidal ideation or gestures;
- history of self-mutilation;

When an awaiting trial prisoner is determined to be incompetent due to a psychiatric illness, charges must be dismissed without prejudice, and the offender has the right to rehabilitation according to an individualized service plan specifically developed for the particular needs of the defendant. No incompetent person may be tried, convicted, or sentenced for the commission of an offence so long as the person's incompetency

continues. If the offender is unfit to proceed, trial proceedings may be suspended or deferred, but it does not preclude a pre-trial proceeding which does not require the personal participation of the defendant.

A 'Mentally Ill Offender' means a person who has been acquitted, by reason of insanity, of a crime charged and thereupon found to be a substantial danger to other persons or to present a substantial likelihood of committing acts that jeopardizing public safety or security unless kept under further control by the court or other persons or institutions. In South Africa, these offenders are referred to as “state patients”.

The psychiatric evaluation of awaiting trial prisoners explores the complexities of human behaviour in depth. The offender suspected of being psychiatrically ill at the time of the criminal event is assessed in terms of individual, social and situational context that influenced human behaviour.

2.2 Individual Context

According to Siegel and Senna (2000) a framework of individual-centred perspectives which encompass aspects of biological and psychological factors may result in criminal behaviour. This is outlined in Table 2.1 below.

Table 2-1 Individual-centred Perspectives (Siegel & Senna, 2000)

Perspective	Key Determinants
Biological **Biochemical** **Neurological** **Genet**ic	Crimes, especially violence, is a result of an inadequate diet, food allergies or a hormonal imbalance Criminals often suffer from brain injuries or disorders such as minimal brain dysfunction which is related to antisocial behaviour Criminal characteristics are inherited. The criminality of parents may serve as a predictor of misconduct in their children
Psychodynamic	Development of personality in early childhood influence behaviour for the rest of one's life. Those who offend may have poor ego development and dysfunctional personalities.
Cognitive	The process of individual reasoning influences behaviour. The way in which people reason is influenced by their moral and intellectual development as well as the way in which people perceive their environment.
Rational Decision Making	Criminal behaviour takes place after offenders have weighed conditional factors such as personal needs surrounding the risk of the crime.
Behavioural	People commit crimes when they base their behaviour on that of others who have received rewards. Behaviour is reinforced by rewards and deterred by punishment

2.2.1 Individual Characteristics that influences criminal behaviour

According to Turvey (1999), as shown in Table 2.2 individual characteristics of offenders can be divided into two categories: Hard Characteristics and Soft Characteristics. Hard characteristics are attributes of verifiable and demonstrable

facts, while Soft Characteristics are attributes that require some kind of interpretation to define them.

Table 2-2 Two Categories of Individual Characteristics of Offenders (Turvey, 1999)

Characteristics of Offenders	
Hard Characteristics	**Soft Characteristics**
1. Age	1. Self esteem
2. Sex	2. Empathy
3. Marital Status	3. Remorse or guilt
4. Resident History	4. Aggressiveness
5. Formal Education History	5. Motive / Fantasy
6. Employment History	6. Impulsivity
7. Medical History	

2.2.2 Social context

Table 2.3 shows the diverse social factors of significance that lead to criminal behaviour according to Siegel & Senna (2000).

Table 2-3 Social Factors of Criminal Behaviour (Siegel & Senna, 2000).

Social Factors		
Socioeconomic status	**Social Problems**	**Interpersonal Relationships**
Social Class	Unemployment	Conflict
Educational Level	Substance Use	Pattern of Violent Behaviour
Level of employment	Alcoholism	Physical and Emotional Abuse
Neighbourhood	Poverty /Crime	Role Models
Recreational Facilities	Lack of Facilities	Peer Group

2.3 Situational context

According to Sacco & Kennedy (2002) the situational context of a criminal event occurs in a sequential event and has three major components.

2.3.1 The precursors

The precursors of the event include the location and situational factors that bring people together in time and space.

2.3.2 The transaction

The transaction indicates how the interaction among the participants defines the outcomes of their actions.

2.3.3 The aftermath

The aftermath of the event, includes the report to the police, their response, the harm done and the redress required, and the long –term consequences of the event in terms of public reactions and the changing of laws.

2.4 Main Theories of Criminal Behaviour

According to Bluglas et al (1990) criminal behaviour is dependant on two parts, one being the potentially criminal physical act or crime and the mental intent to behave criminally. There is virtually no psychiatric diagnosis that always renders a defendant

incompetent or unable to be held responsible for his or her acts, therefore people with schizophrenia or bipolar illness should not be considered incompetent or not responsible *per se*, nor should those with less serious diagnoses always be assumed to be competent and responsible. Criminal competence refers to current ability to understand and participate in the trial process, and criminal responsibility (the "insanity defence") refers to one's state of mind at the time of the alleged crime. A defendant is judged not responsible if, at the time of the act s/he harboured a mental disease or defect, and he or she could not understand the nature or consequences of the act, or understand that it was wrong.

Weinstock R. (1994), reports that Diminished Responsibility (In the USA it is called Diminished Capacity), is used to reduce the charge of Murder to Manslaughter thus allowing for more discretion in sentencing. A person is said to have diminished responsibility for a crime when committed at an emotional level.

Johnson et al (1990) reported interesting differences in the correlates of the two legal decisions (competence and responsibility) using demographic data, measures of cognitive functioning and psychopathology, and a rating of crime severity.

1. Competency decisions showed modest but significant correlations with performance on a test of competency abilities, a measure of intellectual functioning, and psychiatric diagnosis.
2. Responsibility decisions were most strongly correlated with two indices of psychopathology-psychiatric diagnosis and the presence of hallucinations and delusions.

Table 2.4 below outlines the major theoretical perspectives to explain criminal behaviour among individuals according to Siegel (2005). The theoretical perspectives of criminal behaviour are outlined.

Table 2-4 Theoretical Perspectives of Criminal Behaviour (Siegel, 2005)

Perspective	**Key Determinants**
Classical / Choice (Situational Forces)	▪ Crime is a function of free will and rational choice. ▪ Human beings are conceived as rational creatures, able to weigh up the costs and benefits of crime. ▪ Punishment is based upon offence and a deterrent to crime. ▪ Deterrents should be effective to control crime by making the pain of punishment outweigh the pleasure/gain of the offence
Biological / Psychological (Internal Forces)	▪ Crime is a function of chemical, neurological, genetic, personality, intelligence or mental traits. ▪ Draws a sharp distinction between criminals and non-criminals. ▪ Committed to the application of scientific method to discover the causes of criminality. ▪ Treatment based upon offender needs.
Structural (Ecological Forces)	Crimes rates are a function of neighbourhood conditions, cultural forces and norm conflict
Sociological (Socialisation Forces)	▪ Crime is a function of upbringing, learning and control. Peers, parents, and teachers influence behaviour
Conflict (Economic and Political Forces)	▪ Crime is a function of competition for limited resources and power. ▪ Disadvantaged economic class position is a primary cause of crime. ▪ Class conflict produces crimes. ▪ Social change based upon societal needs.
Developmental (Multiple Forces)	Biological, social-psychological, economic and political forces may combine to produce crime. Integrated theories suggest that, as people develop over a life course, a variety of factors – some social, others personal;- shape their behaviour patterns

2.5 Risk Factors for Criminal Behaviour

Crime and violence among awaiting trial prisoners suspected of having a psychiatric illness or defect at the time of the criminal event is commonly hampered by issues related to prosecution, imprisonment, loss of privacy, and family dissolution. Sustained efforts to understand the epidemiology of criminal behaviour among pre-trial criminal offenders have been studied over the last couple of decades. The same criminogenic factors thought to determine crime and criminal behaviour in this group is the same as in the general population and is well documented in the literature, according to Wessely (1993), Hiday (1995), Link and Stueve (1995), Marzuk (1996), Mullen (1977), Pescosolido et al (1998), Steadman et al (1998), Hiday et al (1999), Noffsinger and Resnick (1999), Swanson et al (1999) Pescosolido et al (1999), and Monahan, et al (2001). These studies reports that the main risk factors for criminal behaviour still remain being young, male, single, unemployed and of lower socio-economic status. Subsequently several more recent studies, Chou, et al (2001) and Stuart, (2003), have reported a modest association between mental illness and criminal behaviour, even when the above elements have been controlled for.

2.5.1 Risk factors for criminal behaviour according to Farrington, 1999.

Table 2.5 below shows some of the main risk factors or predictors of criminal behaviour as reported by Farrington (1999). Although these risk factors are well established, there is little evidence about which of them is truly causal. Major

determinants of violence therefore continue to be socio-demographic and economic factors.

Table 2-5 Risk Factors for Criminal Behaviour (Farrington , 1999)

Risk Factors For Criminal Behaviour
1. Hyperactivity
2. Impulsiveness
3. Attention Deficit
4. Low Intelligence or attainment
5. Convicted Parents or Siblings
6. Poor parental supervision
7. Harsh or Erratic Discipline
8. Parental conflict
9. Separation or divorce of Parents
10. Low Family Income
11. Poor Housing
12. Large Family Size
13. Delinquent Friends
14. Attending a school with a large Delinquent rate
15. Living in a high crime neighbourhood

A survey by the Home office (1998) in Wales and England showed that among awaiting trial prisoners, offending is an activity of the young, reaching a peak at the age of 17 years and declining rapidly by the late 20's. In this survey, 83% of offenders were male, and by far the commonest offence was theft. Female-offenders' mean age was 34 years and they committed mainly minor offences.

2.5.2 Framework of four types of risk factors for criminal behaviour (Monahan & Steadman, 1994)

Monahan and Steadman (1994) described a framework of four types of risk factors for criminal behaviour in people suspected to be mentally ill at the time the crime was committed. These include:

2.5.2.1 Dispositional Risk Factors

These are factors related to the offenders' personal characteristics, traits, tendencies and styles of interacting. These include anger, impulsivity and psychopathy.

1. Anger

   Anger is a normal emotional state, however in some individuals anger is associated with violence, aggression and loss of control. Pathological changes in emotion are experienced in people with psychiatric illnesses, such as pathological anger, whereby anger is felt without provocation as in depression and mania, or with minimal stimulation as is found in borderline personality disorder.

2. Impulsivity

   High levels of impulsivity are associated with an increase in risky behaviours such violence, arson and sexual offences. The trait of impulsivity is associated with a number of mental illnesses including, brain injury, alcohol intoxication and some personality disorders.

3. Psychopathy

   The concept of psychopathy as defined in Hare's Psychopathy Checklist includes traits such as lack of empathy, dominance, forcefulness, lack of anxiety, lack of guilt, impulsivity, sensation seeking, and violation of social norms. The degree of psychopathy in people with mental illnesses predisposes them to criminal behaviour.

2.5.2.2 Clinical Risk Factors:

Although the USA Epidemiological Catchment Area Study (1991) found no link between mental illness and crime, illnesses such as schizophrenia, substance abuse, depression, and some personality disorders have been associated with an increased risk of violence. This is due to psychiatric symptoms such as delusions, command auditory hallucinations, negative symptoms of schizophrenia, profound depression and mania.

2.5.2.3 Historical and Contextual Risk Factors

These are past or environmental events that that may predispose to violent behaviour. These factors according to Mullen (1997) are shown in the table below:

Table 2-6 Historical and Contextual Risk Factors according to Mullen (1997)

Historical and Contextual Risk Factors according to Mullen (1997)	
Risk Factor	**Comments**
1. Past history of violence	In both the mentally well and mentally ill, past violent behaviours predicts future violent behaviours
2. Poor family and social support network	Lack of family and social support lead to deterioration in an individual's mental wellbeing, predisposing him/her to violent and criminal behaviour.
3. Age	The peak age of offending in the general population is mid -to late adolescence, while psychiatrically ill criminal offenders tend to commit their first offence at a later age.
4. Sex	Men in the general population commit far more crimes than women. In the psychiatrically ill offenders the predominance of males is also evident.
5. Race	Differences between psychiatrically ill criminal offenders and the general population are not remarkable.
6. Socio-economic status	The lower socio-economic groups are over-represented in both the general population and psychiatrically ill criminal offenders.
7. Marital Status	Stable marriages indicate a lower risk of criminal behaviour in both the general population and the psychiatrically ill criminal offenders.
8. Personality	The best indicator for violence is past behaviour.
9. Neurobiological factors	Frontal lobe damage leading to disinhibition and irritability increases the risk for violent behaviour.
10. Intellectual function	There is an overrepresentation of people with lower IQ in prison populations.
11. Miscellaneous	Unemployment, substance abuse, and the availability of weapons increase the risk of violent behaviour.

2.6 Association between psychiatric illness and criminal behaviour

Gunn et al (1991) and Brook et al (1996) have systematically surveyed awaiting trial prisoners to describe the pattern of mental disorders in this group. These surveys showed that there is no particular mental illness that is associated with criminality nor is there any type of crime which invariably influences the outcome of mental illness. In general the surveys found that the types of crime among "normal" offenders are similar to those among psychiatrically ill criminal offenders. Also these surveys showed that the rate of criminal offending among psychiatric patients compared with the general population is unknown. An earlier study by Pfeifer (1967) showed in his sample of 89 criminal offenders that no relationship exists between crime and mental illness. Similar findings were more recently documented in the literature by Mossman D (2007).

The U.S.A. Department of Justice, Bureau of Justice Statistics (1999) showed that there were over a quarter million psychiatrically ill persons incarcerated in prison or jail. About 10% of prison and jail inmates reported a mental or emotional condition; and 10% reported that they had previously stayed overnight in a mental hospital or program. Together, 16% or an estimated 283,800 inmates reported either a mental condition or an overnight stay in a mental hospital, and were identified as mentally ill. Psychiatrically ill prisoners were more likely than others to be in prison for a violent offence. These statistics showed that about 53% of psychiatrically ill inmates were in prison for a violent offence, compared to 46% of other inmates. Psychiatrically ill criminal offenders were less likely than others to be incarcerated for a drug related

offence (13% versus 22%). However nearly 6 in 10 psychiatrically ill offenders reported they were under the influence of alcohol or drugs at the time of their current offence. Psychiatrically ill State prison inmates were more than twice as likely as other inmates to report living on the street or in a shelter in the 12 months prior to arrest (20% compared to 9%). Nearly 8 in 10 female mentally ill inmates reported physical or sexual abuse. Males with a psychiatric condition were more than twice as likely as other males to report abuse.

An Australian Institute of Criminology literature review (1990) observed that even where a relationship between illness and violence can be demonstrated statistically, it is merely a link in a more complex causal chain and in any case is rare. People with a mental illness are more likely to cause themselves harm or to be harmed than they are to harm others, according to Jablensky, and Jones (1998). For example, a person with schizophrenia is 2000 times more likely to commit suicide than they are to harm someone else as shown by Lindquist and Allebeck (1990).

Responding to individuals with psychiatric illness is one of the criminal justice system's most difficult dilemmas. The observation by Cordess C. (2001) that there is no correlation between mental illness and crime implies the existence of another variable or variables that may have an association with both mental illness and incarceration. Someone who is acting oddly may prove to be a grave danger to others or merely a harmless person in need of routine treatment.

Hodgins (1993) review was one of the first studies to examine clinical associations between mental illness and criminal behaviour. The study identified precisely the

shared variables between both outcomes: people with a mental illness are at a higher-than-average risk of offending, not because of mental illness per se, but because of confounding by the higher-than-average prevalence of substance abuse in this population.

2.7 Substance misuse and criminal behaviour

In his study Monahan (1983) observed no relationship between mental illness and general crime, when controlled for age, race, socio-economic status and previous hospitalisation or imprisonment. However in his subsequent studies Monahan (1992) demonstrated an association between mental disorder and violent behaviour, and he is careful to note that this relationship may be mediated by a range of factors, including gender, socio-economic status, age, and substance abuse. This latter item is one now favoured by many researchers as a powerful co-morbid factor.

Direct links between crime and substance misuse are difficult to prove, but there is substantial body of evidence that violence is linked to substance misuse, especially as described by Steadman *et al* (1998) amongst psychiatrically ill people. Dependence on alcohol and other drugs is the single most important factor leading to violent behaviour among psychiatrically ill people according to Marshall (1998). Kerner *et al* (1997) showed that alcohol was the most important situational factor in both perpetrators and victims of violent offences. Specialist dual diagnosis services for psychiatrically ill criminal offenders have been recommended by many authors such as Grounds (1996) and Marshal (1998).

The MacArthur Research Network on Mental Health and the Law (2001) conducted a *Violence Risk Assessment Study,* to determine which former psychiatric hospital patients would be considered dangerous. It followed 1,000 people between the ages of 18 and 40 for one year after discharge, interviewing them and at least one person who were most familiar with their behavior in the community, every ten weeks.

Findings include the following:

- People diagnosed with a major mental disorder and without a substance abuse diagnosis are involved in significantly less community violence than people with a co-occurring substance abuse diagnosis.
- The prevalence of violence is higher among people – discharged psychiatric patients or non- psychiatric patients, who have symptoms of substance abuse. People who have been discharged from a psychiatric hospital are more likely than other people living in their communities to have symptoms of substance abuse.
- The prevalence of violence among people who have been discharged from a psychiatric hospital and who have symptoms of substance abuse is significantly higher than the prevalence of violence among other people living in their communities who have symptoms of substance abuse, for the first several months after discharge.
- When people discharged from a mental hospital become violent; they will typically strike a family member in their own home, not unlike the violence committed by other people living in their communities.

Substance abuse is a major determinant of violence and this is true whether it occurs in the context of a concurrent psychiatric illness or not. Therefore, early identification

and treatment of substance abuse problems, and greater attention to the diagnosis and management of concurrent substance abuse disorders among criminal offenders may be potential violence prevention strategies. Substance abuse in the context of medication non-compliance and prior history of violence (a major predictor of future violence), is a particularly volatile combination and poor insight also may be a factor as reported by Swartz et al (1998).

A survey by Singleton et al. (1998) comparing awaiting trial prisoners to the general public found that only one in ten offenders showed any evidence of mental illness. Co- morbidity with substance abuse was the norm; there was a high prevalence of anti-social personality disorder, and a high prevalence low intellectual functioning.

Kravitz and Kelly (1999) reported that almost two-thirds of their sample of patients who were found to be not fit to stand trial or not responsible for their criminal behaviour had a psychotic disorder, of whom 58% had a co-morbid substance use disorder. Grossman *et al* (1995), Tiihonen et al (1997) in their prospective cohort sample of state hospital patients confirmed this high rate of psychotic disorders and co-morbid substance abuse. Similar findings were found by Brinden et al (2001) in their sample of prison inmates. Wessely *et al* (1994) reported that women with schizophrenia were at an increased risk of acquiring a criminal record and that men with schizophrenia were more likely to commit violent offences and therefore be referred for forensic psychiatric evaluation.

Muntez et al (2001) found in their study among awaiting -trial offenders referred for psychiatric evaluation from a local county jail in Arkon, USA, that 40% were found to

have a schizophrenia spectrum disorder and 70% of this group were actively abusing substances at the time of their incarceration. Co-morbid substance use, especially alcohol use is well documented in the literature on criminal behaviour in patients with schizophrenia and other mental illnesses as reported by Modestin and Ammann (1990). This may be due to the excessive noradrenergic reaction of anxiety with initial alcohol withdrawal in the offenders according to Reulbach *et al* (2007).

Hodgins (1992) reported that the intellectually handicapped are five times more likely to commit a violent offence. The presence of a personality disorder, a history of theft or burglary, and a young age increased the risk of re- offending among offenders with intellectual disability in this study.

Alexandra *et al* (2006) and Lund (1985) recognised that offenders with intellectual disability and co-morbid psychiatric illness were increasingly admitted to psychiatric facilities and recommended that this group of offenders be treated in special institutions or outpatient clinics by specially trained mental healthcare workers, psychiatrists and staff.

In a study by Pfeifer *et al* (1967) the three most common mental illnesses diagnosed in their sample of awaiting-trial prisoners were personality disorders (26%), psychotic disorder (23%) and mental retardation (9%). This study also showed that commonly associated factors that lead to criminal behaviours among offenders with mental retardation were poor socialization, impaired self control, naivety, gullibility, and lack comprehension of social norms. Other impairments such as immature or disinhibited sexuality, low self image and poor self esteem further contribute to offending

behaviour. Mental Retardation, together with antisocial features carries a high risk for offending according to Day (1990).

Walker and McCabe (1973) reported in their study that of almost 1200 criminal offenders, 4% was psychiatrically ill and 9% were mentally retarded or had learning problems. As discussed above it is known that criminal offenders with mental retardation and antisocial characteristics have a poorer prognosis and risk for recidivism. Bonta *et al* (1998) reported that the best predictor of recidivism for criminal offenders was a previous forensic history, which had an even higher effect size than psychopathology.

Gunn (1977) reported that the significance of offending behaviour due to organic features such as emotional instability and poor judgement as seen in dementia are more difficult to assess in the forensic setting.

Lindqvist and Allebeck (1990) reported that awaiting-trial offenders with psychotic disorders such as schizophrenia fall into two categories. Those who offend due to positive symptoms such as command auditory hallucinations and persecutory delusions, and those with negative symptoms whose offence are committed inadvertently or neglectfully. Although these offenders are more likely to commit a crime of violence, this is usually minor in degree and they are more likely to be detected and arrested.

Smith and Hucker (1994) reported that offending behaviour is complicated by the interaction of substance abuse and psychosis.

2.8 Psychiatric illnesses among awaiting trial prisoners

Criminalization of the mentally-ill implies that people are being inappropriately processed through the criminal justice system rather than through the mental health system. However, if people with mental illness commit serious violent crimes, then a criminal justice response may be necessary in order to preserve public safety.

Studies suggest that the crimes committed by the mentally ill fall under three broad categories:

- Illegal acts which are byproducts of mental illness; e.g., disorderly conduct, criminal trespass, disturbing the peace, public intoxication.
- Economic crimes to obtain money for subsistence; e.g., petty theft, shoplifting, prostitution.
- More serious offenses such as burglary, assault and robbery.

Offenses in the first two categories might be avoided, or at least reduced, by better community resources providing treatment and other support services. Crimes in the third category are likely to continue to involve the criminal justice system.

Barriers to Involuntary Commitment, such as the introduction of the Mental Care Act in South Africa (2002) have made it difficult for people to be hospitalized against their will without legal representation and a full judicial hearing. Families and others seeking to force the mentally ill into treatment are faced with changes in mental health law that has made involuntary commitment more difficult. Most state mental health codes as reported by Bazelon Centre for Mental Health Law (1999) require psychiatric hospitals to show clear and convincing evidence that patients being committed involuntarily are either a danger to themselves or others or are so gravely disabled by their illnesses that they are unable to care for themselves. They also

require specialized pre-release planning to ensure a successful transition back into the community.

The Open Society Institute's Center on Crime, Communities & Culture, and the National GAINS Center (1996) in the USA reports that the "revolving door" between jail and the street is propelled largely by untreated mental illness and co-occurring substance abuse disorders among individuals who have committed relatively minor crimes. This population includes homeless and mentally ill people whose untreated mental illnesses lead to repeated "nuisance crimes" and jail. People with mental illness are more likely to exhibit the kinds of behaviors that will bring them into conflict with the criminal justice system. An overloaded system and the lack of adequate treatment resources for co-occurring mental illness and substance abuse disorders have severely restricted many individuals' access to treatment, increasing the likelihood of offending and incarceration of these individuals. While some of the more serious offenses committed by the mentally ill may be driven by the same factors that lead people without mental illness to commit crime, some violent acts may be attributable to untreated mental illness. The study also showed that 53% of inmates with mental illnesses in state prison had been convicted for a violent offence, compared to 46% of other inmates. Among the mentally ill jail inmates, 30% were charged with a violent offence, compared to 26% of other inmates.

The number of mentally ill persons confined in prisons and jails in the USA has increased dramatically over the past several decades. This has been the result in part of the expansive growth of these institutions generally, but has also been a function of factors relating to the care of mentally ill people in community settings. As

deinstitutionalization became a guiding policy in regard to mental hospitals, the failure to simultaneously support community-based mental health services led almost inevitably to a host of problems which ultimately came under the jurisdiction of the criminal justice system. This set of factors has resulted in a situation which is unsatisfactory to all involved. Mentally ill persons often do not receive appropriate services, which may contribute to behaviors that bring them into contact with the criminal justice system. Criminal justice practitioners are faced with limited resources with which to confront issues that would often be better suited to other institutions. Communities are not well served by the negative consequences of untreated mental illness.

The prevalence of mental illness in awaiting trial prisoner populations is the focus of much of the current literature, as outlined by Cordless C. (2001), Davis, S. (1992), Walker, F. (2002) and Steadman *et al* (1995). Furthermore, these studies also clearly demonstrated the causal demographic risk factors for crime among awaiting trial prisoners, i.e., being single, male, poor, uneducated, unemployed, abusing substances and living in an urbanised low-income environment. These factors have been identified in many countries around the world, and were showed by Wadsworth, M. (1999) to be present regardless of the political and cultural environments in which they take place.

2.9 Clinical Profile of Awaiting Trial Prisoners

According to Terry (1999) mental disorders among awaiting trial prisoners are estimated to be at least five times more prevalent than in the general population. Much of the problem has arisen from deliberate policy decisions and can therefore be remedied by changes in policies and procedures. These include untreated mental illness in the community and deinstitutionalization. The number of mentally ill people in the community who are not receiving adequate treatment has increased as a result of deinstitutionalization without a corresponding development of community-based mental health services. While treatment enables many people with serious mental illnesses to function effectively in community life, access to treatment and other essential services often falls short of the need. Barriers to treatment include fragmentation of treatment services (mental illness, substance abuse, general medical care).

A study by Henderson, (1988) cites a lifetime crime prevalence of 4% out of 500 psychiatric patients, which is not higher than the general population. This study also showed that there is no inherent link between mental illness and crime, but indeed a strong causal link between psychiatric illness and incarceration. This is further highlighted by long-held evidence that people with severe psychiatric illness are more likely to be convicted than their mentally healthy counterparts, and tend to be incarcerated for longer periods. A more recent study by Greenberg, D. and Nielsen, B. (2002) showed in prison populations in Britain and the United States of America that up to 60% of admissions to prisons had active mental illnesses.

The New South Wales Correctional services Inmate Survey (1997) showed that 50% of women and 33% of men reported that they had undergone some sort of psychiatric treatment for an emotional or mental problem at some point in their lives. Of these respondents, more than a third reported that they were previously admitted at least once to hospital as a psychiatric in-patient. Furthermore 26% of women and 12% of men reported pre-imprisonment psychiatric diagnosis, including depression (women 16%; men 7%), schizophrenia (women 2%; men 3%), bipolar mood disorder (women 4%; men 1%) and anxiety disorder (women 5%; men 1%).

Virkkunen (1974) found that one-third of Finnish people with schizophrenia found guilty of a violent crime acted directly as a result of their delusions or hallucinations. In the Brixton studies of Taylor *et al* (1985) passivity phenomenon, religious delusions and delusions of reference were significantly more likely to be associated with violent action. The risk of criminal behaviour was found by Steadman *et al* (1998) to be considerably increased by substance misuse.

Depressive and manic states can lead directly to criminal behaviour, especially if accompanied by delusions, perplexity, hallucinations and disorganised behaviour, as described by Taylor et al (1985).

Although studies by Singleton *et al* (1988) report anxiety states as common among awaiting trial prisoners, no causal relationship exists between such symptoms and criminal behaviour. These studies also report significantly higher scores of neurotic symptoms with personality disorder and substance misuse among these offenders.

Given these interactions it is difficult to point out the precise contribution of anxiety disorders to criminal behaviour.

In conclusion, these studies have shown that no relationship exists between mental illness and criminal behaviour, and that socio- demographic risk factors are similar in the psychiatrically unwell to those in the general population of criminal offenders. However the use of substances, especially alcohol, in the context of untreated or poorly treated psychiatric illness has been shown to lead to a higher risk of criminal behaviour of a violent nature. Also intellectually impaired criminal offenders are more likely to commit violent crimes and are at risk of recidivism. This study will show that these factors (socio-demographic, clinical profile, substance use, prevalence of violent offences, and criminal competency and responsibility) among Observation Patients admitted to the Sterkfontein Forensic Unit for psychiatric evaluation are consistent with similar population groups of criminal offenders both locally and internationally as outlined in this literature review.

3 CHAPTER THREE: METHODS AND MATERIALS

3.1 Site of the Study

The study was conducted at the Forensic Unit at Sterkfontein Hospital, which is one of two forensic units of the Gauteng Health Department in South Africa.

3.2 Study design and sampling

3.2.1 Study Design

A descriptive retrospective study of clinical records was conducted using a structured score-sheet as outlined in the appendix 8.2. All clinical records included in the study were anonymous.

3.2.2 Study Population

The study population consisted of clinical records all Observation Patients who had completed thirty (30) days psychiatric evaluation and observation during the period from 1st January 2002 to 31st December 2004. (i.e. three calendar years)

3.2.3 Study Sample

Clinical records of all men and woman over the age of 18 years from the study population described in 3.2.2 were included in the sample of 732.

3.2.4 Sampling Method

A systematic sampling method was used; all consecutive Observation Patients' records meeting the selection criteria outlined in 3.2.3 were included.

3.3 Collection of Data

The data collection sheet (appendix 8.2) recorded file numbers only to facilitate analysis of the information obtained and to keep track of records. The information was collected under the following subsections.

A. File Number, Date of Admission, Complainant.

B. Demographic Details (age, gender, marital status, residential region, employment, level of education, criminal charge/s, previous convictions, substance use, mental illness diagnosed on admission, previous history mental illness, compliance on medication for a mental illness prior to event of criminal offence)

C. Source of Referral

D. Competence to Stand Trial

E. Criminal Responsibility

F. Psychopathology

3.4 Pilot study

A pilot study was undertaken at the same forensic unit at Sterkfontein Hospital. A total of 20 clinical records were reviewed in the pilot study to evaluate the feasibility and suitability of the data collection sheet.

3.5 Ethical Approval and Other Considerations

Approval was obtained by both the University of Witwatersrand Postgraduate Committee (appendix 8.3) as well as the University's Committee for Research on Human Subjects. (Appendix 8.4)

3.6 Analysis of the data

The data was analysed using Epi info 6.0, a word processing, database and statistical package for public health, which was used to generate means, frequency tables, histograms, pie charts and chi-squared analyses in this study.

3.7 Limitations of the Study Design

The benefits of a retrospective study are that it is usually quick to conduct, there is almost no workload for staff; data collection is easily planned and is relatively inexpensive. However the major disadvantage is if record keeping is inadequate or unreliable.

3.8 Funding of the Research

The study was financed entirely by the principal investigator

3.9 Timing of the Research

The collection of Data commenced on the 1st July 2005 and was concluded by the 31st December 2005. The data analysis was completed by June 2006 and the data presented at the Department of Psychiatry Research Day on the 14 June 2006 (Appendix 8.6) for comment.

4 CHAPTER FOUR: RESULTS

4.1 Demographics Profile of Observation Patients

4.1.1 Sample

Figure 4.1 illustrates the number of clinical records included during each year over the study period. A total of 732 records (patient files) were included the study sample.

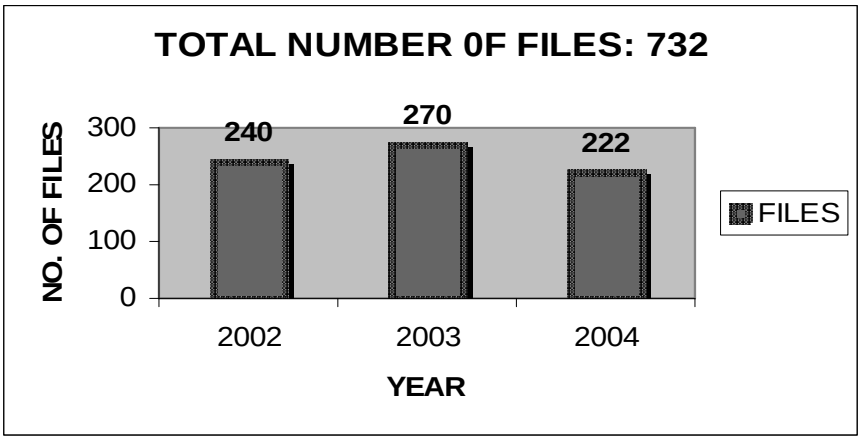


Figure 4-1 Number of Records per year (n = 732)

4.1.2 Place of Residence

Table 4-1 Place of Residence of Observation Patients (n =732)

PROVINCE	Frequency	Percent	Cum Percent
1 Gauteng	521	71.2%	71.2%
2 Northwest Province	101	13.8%	85.0%
3 Other Provinces	30	4.1%	89.1%
4 Not Known	27	3.7%	92.8%
5 Missing Data	53	7.2%	100.0%
Total	732	100.0%	100.0%

The majority of the Observation Patients lived in Gauteng Province (71.2%). Appendix 8.6 depicts the geographic catchment region for the Sterkfontein Psychiatric Hospital Forensic Unit.

4.1.3 Complainants

Almost half of the complainants were known to the offender; 22% were immediate family members, 15% were neighbours, and 12% were relatives or friends. The rest of the complainants (51%) were strangers as illustrated in figure 4.2.

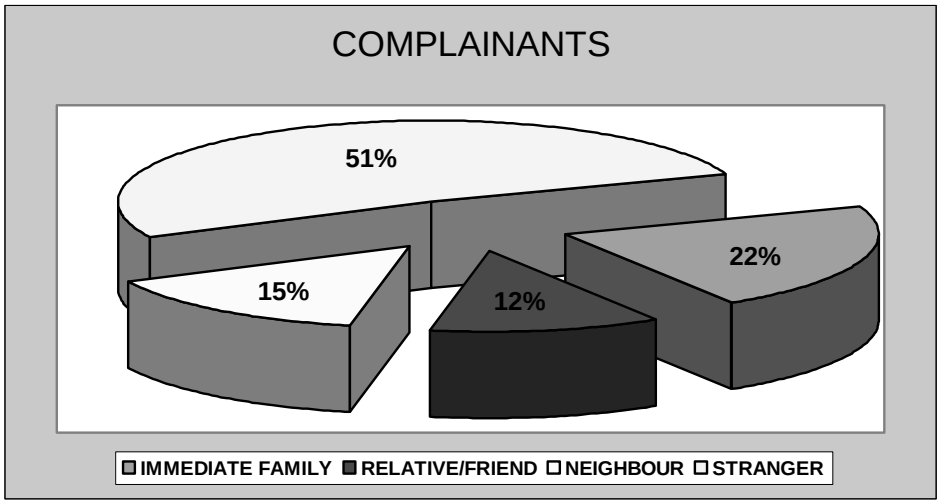


Figure 4-2 Complainants

4.1.4 Source of Referral

Table 4.2 indicates that the Officer of the court (magistrate or prosecutor), (42.30%), was the main source of referral, followed by a family member (21.40%) and the legal defence team (15.7%).

Table 4-2 Source of Referral

SOURCE OF REFERRAL	Frequency	Percent	Cum Percent
1 Officer of the Court	310	42.3%	42.3%
2 S.A.P.S.	15	2.0%	44.4%
3 Family	157	21.4%	65.8%
4 Self	54	7.4%	73.2%
5 Legal Defence	115	15.7%	88.9%
6 District Surgeon	40	5.5%	94.4%
7 Social Worker	4	0.5%	94.9%
8 State Psychologist	2	0.3%	95.2%
9 State Psychiatrist	7	1.0%	96.2%
10 General Practitioner	13	1.8%	98.0%
11 Private Psychologist	7	1.0%	98.9%
12 Private Psychiatrist	5	0.7%	99.6%
13 Criminologist	1	0.1%	99.7%
15 Director Public Prosecutors	1	0.1%	99.9%
16 Probations Officer	1	0.1%	100.0%
Total	732	100.0%	100.0%

4.1.5 Gender

Figure 4.3 illustrates the gender profile of the Observation Patients with male offenders forming the majority of the patients (92%).

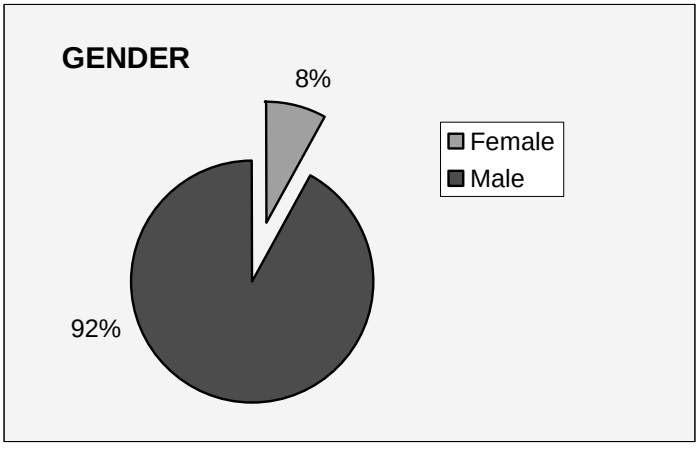


Figure 4-3 Gender (n = 732)

4.1.6 Age Groups

The age groups of the Observation Patients are shown in Table 4.3. The majority of individuals fell in the age group 21 – 30 years (43.2 %). The mean age of female patients was 34.33 years and the mean age of the male patients 31.20 years.

Table 4-3 Age Groups of Observation Patients (n = 732)

AGE GROUP	Frequency	Percent	Cum Percent
18 - 20	72	9.8%	9.8%
21 - 30	316	43.2%	53.0%
31 - 40	208	28.4%	81.4%
41 – 50	108	14.8%	96.2%
51 - 60	23	3.1%	99.3%
> 60	5	0.7%	100.0%
Total	732	100.0%	100.0%

4.1.7 Marital Status

Table 4.4 shows that most of the Observation Patients were single (75.4%)

Table 4-4 Marital Status of Observation Patients (n = 732)

MARITAL STATUS	Frequency	Percent	Cum Percent
1 Single	552	75.4%	75.4%
2 Married	84	11.5%	86.9%
3 Divorced	25	3.4%	90.3%
4 Widowed	15	2.0%	92.3%
5 Separated	24	3.3%	95.6%
6 Living with Someone	14	1.9%	97.5%
7 Not Known	13	1.8%	99.3%
8 Missing Data	5	0.7%	100.0%
Total	732	100.0%	100.0%

4.1.8 Employment Status

The majority of the offenders referred for psychiatric observation were unemployed (65.6%).

Table 4-5 Employment Status of Observation Patients (n=732)

EMPLOYMENT	Frequency	Percent	Cum Percent
1 Employed	172	23.5%	23.5%
2 Unemployed	480	65.6%	89.1%
3 On Disability Grant	51	7.0%	96.0%
4 Student	5	0.7%	96.7%
5 Pensioner	1	0.1%	96.9%
6 Not Known	16	2.2%	99.0%
7 Missing Data	7	1.0%	100.0%
Total	732	100.0%	100.0%

4.1.9 Educational Level

Table 4.6 indicates the different levels of education among the offenders referred for psychiatric observation, namely, no formal education, special schooling, primary schooling, secondary schooling, technical schooling and tertiary schooling. Primary level education was achieved by 51.2% of all observation patients. Unfortunately there was missing data for a large proportion of patients, 14.8%.

Table 4-6 Highest Level of Education Achieved

EDUCATIONAL LEVEL	Frequency	Percent	Cum Percent
1 No Formal Education	70	9.6%	9.6%
2 Special Schooling	31	4.2%	13.8%
3 Primary Education	147	20.1%	33.9%
4 Secondary Education	327	44.7%	78.6%
5 Technical Education	31	4.2%	82.8%
6 Tertiary Education	17	2.3%	85.1%
7 Missing Data	108	14.8%	99.9%
8 Not Known	1	0.1%	100.0%
Total	732	100.0%	100.0%

4.2 Forensic Profile of the Observation Patients

4.2.1 Types of Criminal Charges

The various types of criminal charges of the 732 patients sent for psychiatric observation is shown in Table 4.7. Murder (12.0%), Assault with Grievous Bodily harm (12.0%) and theft (11.0%) formed the three most common crimes committed. Rape of a Minor accounted for 9.0% of the offences. The entire sample of 732 patients was collectively charged with a total of 922 criminal charges.

Table 4-7 Types of Criminal Charges

CRIMINAL CHARGE	Frequency	Percent	Cum Percent
1 Murder	114	12.0%	12.0%
2 Assault with Grievous Bodily Harm	113	12.0%	24.0%
3 Theft	106	11.0%	35.0%
4 Rape of a Minor	83	9.0%	44.0%
5 Housebreaking with Intention To Steal	74	8.0%	52.0%
6 Rape	66	7.0%	59.0%
7 Malicious Damage To Property	51	6.0%	65.0%
8 Robbery With Aggravating Circumstances	40	4.0%	69.0%
9 Attempted Murder	40	4.0%	73.0%
10 Indecent Assault of a Minor	35	4.0%	77.0%
11 Armed Robbery	24	3.0%	80.0%
12 Fraud	14	2.0%	82.0%
13 Contravention of a Protection Order	12	1.0%	83.0%
14 Attempted Rape of a Minor	10	1.0%	84.0%
15 Attempted Rape	9	1.0%	85.0%
16. Other (31 Charges)	131	15.0%	100.0%
TOTAL	**922**	**100.0%**	**100.0%**

4.2.2 Multiple Offences

The frequency of multiple criminal charges laid per Observation Patients is illustrated in figure 4.4. Of the total sample (n =732), 140 patients were charged with two crimes, 37 patients with three crimes, 8 patients with four crimes and 5 patients with five crimes respectively.

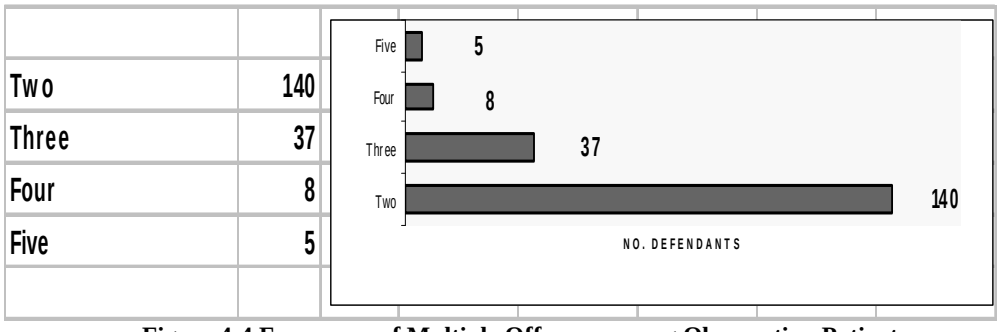


Figure 4-4 Frequency of Multiple Offences among Observation Patients

4.2.3 Previous forensic history of Observation Patients

For most offenders, 320 (43.7%), this was their first arrest for a criminal offence and their first forensic psychiatric evaluation, while 16 (2.2%) were re-offending state patients who were on a leave of absence at the time of their offence (table 4.8). Whether any the remaining 396 Observation Patients were previously sent for psychiatric evaluation could not be determined. However of this group 211 (28.8%) had a previous forensic/criminal history and 185 (25.3%), a history of previous forensic/criminal offences was unknown.

Table 4-8 Past Forensic History Use Among Observation Patients (n = 732)

PREVIOUS FORENSIC HISTORY	Frequency	Percent	Cum Percent
Yes	211	28.8%	28.8%
No	320	43.7%	72.5%
Not Known	185	25.3%	97.8%
State Patient On Leave of Absence	16	2.2%	100.0%
Total	732	100.0%	100.0%

4.2.4 Categories of Crimes

The two major categories of crime committed, namely violent and non-violent is indicated in table 4.9. Violent crimes are offences against people, which include murder, assault, and rape, and accounted for three-quarters (69.9%) of the offences.

Table 4-9 Categories of Crimes Committed

VIOLENT	Frequency	Percent	Cum Percent
Yes	512	69.9%	69.9%
No	220	30.1%	100.0%
Total	732	100.0%	100.0%

4.3 Clinical Profile of Observation Patients

Of the 732 Observation Patients, 586 (80.0%) were diagnosed with a mental illness according to the DSM Classification of Mental Illnesses. A psychotic disorder accounted for the majority of the mental illnesses diagnosed (42.3%). Mild and Moderate Mental Retardation made up 14.0% and 2.2% of mental illnesses diagnosed respectively. Of the remaining 146 (20.0%) Observation Patients, 129 (88.3 %) had no mental disorder, 13 (8.9%) were found to be malingering and remaining 4 (2.8%), their clinical profile were not determined or deferred. Table 4.10 illustrates the general clinical profile of the patients referred for psychiatric observation at the Forensic Unit at Sterkfontien Hospital

Table 4-10 Clinical Profile of the Observation Patients (n = 732)

1) MENTAL ILLNESS	Frequency	Percent	Cum Percent
Psychotic disorder	277	47.3%	47.3%
Mild Mental Retardation	82	14.0%	61.3%
Dementia	68	11.6%	72.9%
Mood Disorder	48	8.2%	81.1%
Cluster B Traits	22	3.8%	84.7%
Mental Illness due to General Medical Condition	21	3.6%	88.3%
Anti-social personality disorder	20	3.4%	91.7%
Borderline Intellectual Functioning	19	3.2%	94.9%
Moderate Mental Retardation	13	2.2%	97.1%
Substance Induced Mental Disorder	7	1.2%	98.3%
Substance Induced Intoxication	5	1.0%	99.3%
Adult ADHD	2	0.3%	99.6%
Multiple Paraphilias	1	0.2%	99.8%
Anxiety Disorder	1	0.2%	100.0%
	586	**100.0%**	**100.0%**
2) NO MENTAL ILLNESS	Frequency	Percent	Cum Percent
No Mental Disorder	129	88..3%	88.3%
Malingering	13	8.9%	97.2%
Unknown	4	2.8%	100.0%
	146	**100.0%**	**100.0%**
Total	**732**		

4.3.1 Past Psychiatric History of observation patients

Table 4.11 indicates that a large proportion of patients referred for psychiatric observation had a pre-existing mental illness (42.2%),

Table 4-11 Past Psychiatric History of Offenders

PREV. MENTAL ILLNESS	Frequency	Percent	Cum Percent
Yes	309	42.2%	42.2%
No	344	47.0%	89.2%
Not Known	71	9.7%	98.9%
Missing Data	8	1.1%	100.0%
Total	732	100.0%	100.0%

4.3.2 Medication Compliance of observation patients with pre-existing psychiatric illness

Table 4.12 illustrates medication compliance among the three hundred and nine (309) Observation Patients found to have a previous history of mental illness. The majority of the patients (64.4%) were non-compliant on their medication at the time of the criminal event.

Table 4-12 Medication Compliance among Observation Patients with Pre-existing Mental Illness (n = 309)

COMPLIANCE	Frequency	Percent	Cum Percent
Yes	54	17.4%	17.4%
No	199	64.4%	81.8%
Not Known	56	18.2%	100.0%
Total	309	100.0%	100.0%

4.4 Substance use among Observation Patients

4.4.1 Substance Use History

At the time of committing the offence a total of 363 Observation Patients were using some form of substances of which 95 (26.0%) of them were intoxicated at the time as well. Those Observation Patients who had no history of substance use, or used substances previously but not at the time of the offence is shown in Table 4.13.

Table 4-13 Substance Use History among Observation Patients at the time of the criminal offence (n = 732)

SUBTSTANCE USE	Frequency	Percent	Cum Percent
No use of substance use	199	27.2%	27.2%
Use of substances prior to the criminal offence	170	23.2%	50.4%
Use of substance at the time of committing an offence	363	49.6%	100.0%
Total	732	100.0%	100.0%

4.4.2 Types of Substance Use

Alcohol (40, 0%), followed by cannabis use (33.0%) accounted for the two most frequent substances used (figure 4.5).

SUBSTANCE USED	NO.	%
Alcohol	1	295
Benzodiazepines	2	3
Cannabis	3	243
Cocaine	4	23
Ecstacy	5	13
Glue	6	11
Heroine	7	9
LSD	8	6
Mandrex	9	37
MDMA	10	2
Crack	11	1
Rocks	13	6
TOTAL		649

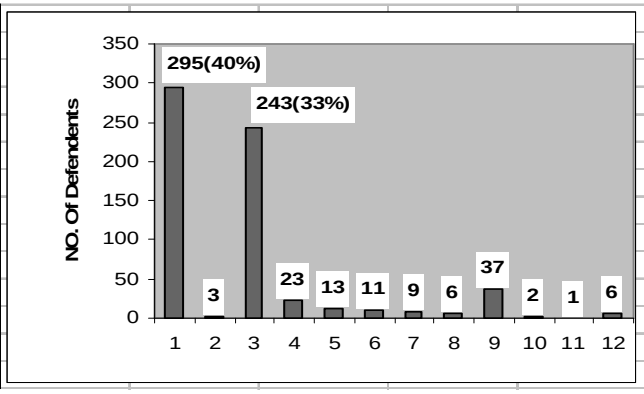


Figure 4-5 Types of Substances Used

4.5 Outcome of the Observation Period

4.5.1 Responsibility (1ST Leg) of Observation Patients

The majority of the study sample (63.3%) were found to have been not responsible (i.e. appreciated the wrongfulness of the act) on the 1st leg of the Criminal Procedures Act (CPA) at the time of the offence as shown in Table 4.14.

Table 4-14 Responsibility On The 1st leg Among the Observation Patients (n = 732)

RESPONSIBILITY I	Frequency	Percent	Cum Percent
Deferred	12	1.6%	1.6%
No	463	63.3%	64.9%
Yes	257	35.1%	100.0%
Total	732	100.0%	100.0%

4.5.2 Responsibility (2ND Leg) of Observation Patients

In terms of criminal responsibility on the 2nd leg of the CPA a large proportion of patients 451 (61.1%) were found to lack capacity (i.e. to act in accordance with the appreciation of the wrongfulness of the act) as shown Table 4.15.

Table 4-15 Responsibility on the 2nd Leg among Observation Patients (n=732)

RESPONSIBILTY 2	Frequency	Percent	Cum Percent
Deferred	12	1.6%	1.6%
No	451	61.6%	63.3%
Diminished Capacity	1	0.1%	63.4%
Yes	268	36.6%	100.0%
Total	732	100.0%	100.0%

4.5.3 Competence to Stand Trial of Observation Patients

Of the 732 patients sent for forensic psychiatric evaluation 451 (61.6%) were found not fit or incompetent to stand trial. A large proportion (37.8%) of Observation Patients was found competent to stand trail. Competence to Stand Trial is shown in Table 4.16. The four patients where competence to stand trial was deferred may account the exact same number of Observation Patients where inability to determine a psychiatric diagnosis was shown Table 4.10 of section 4.3.

Table 4-16 Competence to Stand Trial among Observation Patients (n =732)

COMPETENCY	Frequency	Percent	Cum Percent
Deferred	4	0.5%	0.5%
No	451	61.6%	62.2%
Yes	277	37.8%	100.0%
Total	732	100.0%	100.0%

4.6 Significant Variables Associated with Observation Patients found Competent to Stand Trial

Variables that were associated with offenders being more likely to be found fit or competent to stand trial are shown in Table 4.17.

Table 4-17 Variables Significantly Associated with Competency to Stand Trial

VARIABLES	P < 0.05
1. Male Gender	0.0232
2. Intoxicated at time of offence	0.0199
3. Source of referral: Presiding Officer	0.0354
4. Non – violent crime	0.0003

4.7 Significant Variables Associated with Observation Patients found to have Criminal Responsibility

A past forensic (criminal) history and a crime of a violent nature were significantly associated with Criminal responsibility as shown in Table 4.18.

Table 4-18 Variables Significantly Associated with Criminal Responsibility

VARIABLES	P < 0.05
1. Past Forensic History	0.0003
2. Violent Crime	0.0181

4.8 Significant Variables Associated with Observation Patients found with Intoxication with substances at the Time of the Criminal Offence

Variable significantly associated with being intoxicated at the time of the criminal offence are shown in Table 4.19.

Table 4-19 Variables Significantly Associated with Intoxication at the time of the Criminal Offence

VARIABLES	P < 0.05
Age Group 21 – 30 years	0.0213
Family as the Complainant	0.0111
Competent to stand trial	0.0119
Non-compliance on medication for a pre-existing mental illness	0.0008
Being Unemployed	0.0127
Male Gender	0.0012
Being Single	0.0050
Criminal Responsibility – 1st Leg (appreciating wrongfulness)	0.0408
Criminal Responsibility – 2nd Leg (ability to act in accordance with the wrongfulness)	0.2697
Violent Offence	0.0077
Psychosis at time of offence	0.0024

5 CHAPTER FIVE: DISCUSSION

5.1 Demographic Profile of Observation Patients

5.1.1 Gender

Consistent with the study by Vorster (1986) is the large proportion of male (92%) compared to female observandi. In the study by Vorster (1986) males also made up 92% of the study sample. These findings are also consistent with studies conducted internationally. In the studies by Webster and Menzies (1981) and Reich (1985), males made up 91% and 83.7% respectively of their sample of awaiting-trial prisoners referred for psychiatric evaluation.

In the USA Uniform Crime Report that men accounted for 77.8% of all arrests in 2000, compared to 22.2% for women. Tiihonen *et.al* (1997) showed a high prevalence of men, in their large sample of 12 058 awaiting -trial prisoners, who suffered from a psychotic disorder that contributed to their criminal behaviour.

Blueglass (1990) outlined two broad categories of explanatory theories that account for this gender difference. The first is that women are biologically not as same the men and the second factor relates to a variety of social influences. Women commit less violent types of crime and they are more likely to suffer from a mood disorder especially depression. Gibbons (1981) confirmed that shoplifters are predominantly females with a mood disorder.

In an American study by Brennan, Mednick, and Hodgins (2000), on awaiting- trial prisoners, men with a psychotic disorder and comorbid substance abuse were responsible for a disproportionately high percentage of criminal behaviour. However in the study by Modestin and Wuermle (2005), men with major mental disorder have an increased probability of criminal behaviour even when there is no co-morbid substance abuse.

A more recent study by Coid *et al* (2007) among 1344 awaiting- trial criminal offenders sent for psychiatric evaluation by at the Forensic Research Unit, St Bartholomew's Hospital in London, showed that men consisted of over 90% of the sample, of younger age group, and with a history of previous conviction when compared to their female counterparts.

Maden *et al* (2006) found in their study in medium- -secure units in England and Wales that women were less likely to re-offend after discharge. In this study alcohol and drug use were good predictors for offending.

5.1.2 Age

Three hundred and sixteen (43.2%) observation patients in this study fell in the age group 21 – 30 years, consistent with the study by Vorster (1986), who showed a proportion of 53% for the same age group. Studies by Cook (1973) and Balcanoff (1969) also indicated that most criminal offenders tended to be in their early or mid twenties. A similar result, of a young age group and a greater proportion of male offenders, was shown in a more recent study by Fazel S and Grann M (2006).

According to the Uniform Crime Report in the USA for the year 2000 persons under the age of 25 accounted for 55.1% of all arrests.

5.1.3 Marital Status

In this study 75.4 % of the sample was single. In the study by Vorster (1986) 61% 0f the Observation Patients was single. Modestin *et al* (1996), and Haywood *et al* (1996), showed similar findings suggesting that being a single unmarried male was as a socio-demographic predictor associated with criminal behaviour.

In a recent five year review of prison records and psychiatric files in Singapore for the period 1997 to 2001 Koh *et al* (2006) showed that perpetrators charged with murder, had same socio-demographic profile of being single, unmarried, male, between the age of 20 – 39 years, and having a history of alcohol abuse. These findings are consistent with results found in this study.

5.1.4 Employment Status

Consistent with other studies on the demographic profile of awaiting -trial prisoners referred for psychiatric evaluation is the high rate of unemployment (65.6%). Vorster (1986) showed an unemployment rate of 52.9%. These findings are also consistent with international studies conducted by Wessely *et al* (1994) among 538 schizophrenic patients with criminal careers.

Unemployment as a significant socio- demographic predictor for criminal behaviour was also reported by Gancy and Roeehr (1992) among schizophrenic patients with prior forensic history, by McNiel *et al* (2005) among 12 934 homeless psychiatrically

ill criminal offenders in San Fransisco, and by Linhorst and Scott (2004) among awaiting-trail prisoners.

5.1.5 Educational Level

Similar to studies by Roesch (1981) and Gun and Taylor (1993), this study showed that a large proportion of Observation Patients (78.6%) had ten years and less of schooling. This included 9.6% who had no formal education and 4.2% who received special schooling. A further 14.8% of the patients' level of education was not known. These results are consistent with the low educational level among observation patients in the study by Vorster (1986) who showed that 82% of her sample had less than 10 years of schooling.

5.1.6 Place of Residence

The majority of the observation patients in this study resided in urban areas of Gauteng (71.2%), (see Table 4.1). No significant correlation could be determined between the location of residence and the type of crime committed.

5.1.7 Complainants

Although the majority of complainants (51%) in this study were not known to the offender, the immediate family member, friends and neighbours made up almost half, 49% of the complainants. This is consistent with international studies that have shown that awaiting -trial prisoners referred for psychiatric evaluation committed crimes towards people known to them. This also includes the study done by Kunjukrshan and Varan (1992) among criminal offenders found not guilty by reason of insanity, and

more recently in a retrospective study among a prison population, by Friel and White (2006).

5.1.8 Source of Referral

In this study the presiding officer of the Court (42.3%) formed the main source of referral due to abnormal behaviour by the criminal offender in court. In addition a large proportion, 21.4%, were referred on recommendation by a family member and 15.7% by the defence attorney. Interestingly 7.4% were self referrals and 10 of these patients (1%) were state patients on leave of absence who had re-offended. Only 3.6% of the referrals were made by recommendations of practitioners working in the private sector, that is, private medical practitioners (1.8%), private psychologist (1.0%), private psychiatrist (0.7%) and a criminologist (0.1%). This accounted for 13 out of the 732 offenders. Similar findings were reported by Skipworth *et al* (2006) among criminal offenders referred for evaluation at a psychiatric forensic unit in New Zealand.

The lack of referrals by state psychiatrists and psychologists in this study reflects the lack of mental health professionals in our criminal justice system in South Africa.

5.2 Clinical profile of observation patients

Majority of the Observation Patients 80.0% (586) were found to suffer from a psychiatric illness. Psychotic disorders, Mental Retardation and Dementia were the most commonly diagnosed disorders at 47.3%, 14.0% and 11.2 % respectively among the Observation Patients in this study. In contrast, the three most common mental

illnesses diagnosed in the study by Vorster (1986) at 22.7%, 19% and 7% respectively, were personality disorders, functional psychosis (psychotic disorders) and mental retardation. Personality disorders accounted for only 3% of mental illnesses diagnosed in this study.

The study showed that 20.0 % (146) observation patients found to have no mental illness, of which 13 (8.9%) were malingering. The study by Vorster (1986) showed larger proportion of 31.0% of who had no mental illness. This may indicate an improvement in the appropriateness of referrals for psychiatric forensic observation over the past twenty years.

5.2.1 Observation Patents with pre-existing psychiatric illness

This study showed that 42.2% (309) of the Observation Patients had a pre-existing psychiatric illness, compared to Vorster (1986) whose sample showed a slightly lower proportion of 35%. The relationship between having a pre- existing psychiatric illness and criminal behaviour is far from straightforward as few patients are offenders, and few offenders are patients as reported by Pfeifer (1967), Gunn (1977) and Mossman D (2007).

5.2.2 Medication Compliance among observation patients with pre-existing psychiatric illness

Of the 309 Observation Patients with a history of pre-existing psychiatric illnesses in this sample, a large proportion 199 (64.4%), were non compliant on their psychiatric

medication at the time of their offence. Compliance on medication protects mentally ill patients from offending behaviour according to Dell and Smith (1983). Medication compliance reduces the vulnerability of patients with psychotic disorders from experiencing positive and negative symptoms, prevents mania, hypomania or depression in patients with mood disorder as well as containing patients with mental retardation with behavioural problems.

Haywood *et al* (1995) found that medication non-compliance was a good predictor for criminal behaviour among psychiatrically ill criminal offenders and an important factor related to frequency of hospitalization. Compliance may well be a protective factor against criminal behaviour as indicated by the large proportion of psychiatrically ill observation patients in this study who were non -compliant on their medication at the time of their offence.

5.3 Substance abuse among observation patients

This study showed that a large proportion 363 (49.6%) of subjects were using substances and of which 95 (26.0%) were intoxicated at the time of the offence. Vorster (1986) found a similar proportion of observation patients (48%) that used or abused substances.

Lindqvist and Allebeck (1990) reported a complex relationship between substance abuse and criminality. Substance misuse is a known factor of much of the offending behaviour seen in patients with psychiatric illnesses, and many of these patients commit crimes when intoxicated.

Alcohol (40%), followed by cannabis (33%) use were the two most commonly used substances in the sample of observation patients in this study. In the study by Vorster no differentiation was made between particular types of substances. A study by Mathers and Ghodes (1992) reported that alcohol or drug misuse, especially cannabis may be the precipitating factor related to onset or relapse of psychiatric illnesses leading to criminal behaviours. Wolfgang and Strohm (1956) and Coid (1986) both showed in their studies that alcohol misuse is a prominent factor in various types of crimes affecting both the offender and victims of violence, rape, sexual assaults on children and in various types of abuse and neglect. Alcohol misuse is also significantly related to a large proportion of property crimes as well.

Cannabis misuse closely followed alcohol misuse as the second most commonly used substance in this study. Thornicroft (1990) concluded that cannabis may cause not only an acute organic psychosis but that heavy use may precipitate a shizophreniform psychosis, and prolonged use may increase the risk for schizophrenia. Cannabis thus leads to psychosis and increased risk for offending behaviours. Thornicroft (1990) also reported that Personality Disorders and Affective illnesses such as Bipolar Mood Disorder and Depression are associated with chronic alcohol and drug misuse, leading to criminal behaviour.

Brinded *et al* (2001) study among prison inmates showed a high level of co-morbid substance misuse, especially alcohol, as an important predictor of criminal behaviour among those suspected of having a psychiatric illness. These finding are well documented in the literature by Wessely *et al* (2006), Modestin and Ammann (1995), Modestin *et al* (1996), Modestin *et al* (1997), Rasanen P *et al* (1998) , Modestin and

Wuermule (2005), and Grossman *et al* (1995). Findings in this study were consistent with these studies and the literature. This study found a number of demographic, historical and clinical characteristics that significantly correlated ($p<0.05$) with being intoxicated at the time of the offence. These included Observation Patients who were male, single, unemployed, between the age of 21 – 30 years, with a family member being the complainant, being non-compliant on medication, having committed a violent crime, psychotic at the time of the offence and who were both competent to stand trial and being responsible on both the 1st and 2nd leg of responsibility (see section 5.5 and 5.6). Muntez *et al* (2001) and Judd *et al* (2003) demonstrated that criminal offenders with dual diagnosis benefit from an integrated mental health service with substance abuse treatment. Therefore criminal behaviour can be minimised by addressing substance misuse among Observation Patients.

5.4 Forensic Profile of observation patients

5.4.1 Previous Forensic History of observation patients

Two hundred and eleven (28.8%) of the observation patients were repeat offenders in this study, while Vorster (1986) showed in her study 20 years earlier a repeat offending rate of 43%. A further 16 patients (2.2%) in this study were State Patients on leave of absence that re-offended. This result may indicate improved rehabilitation of Observation Patients at the unit and a reduction in recurrent offences.

5.4.2 Classification of Criminal Charges

Violent crimes in this study constituted 69.9% of all crimes committed, with murder (12%) and assault with grievous bodily harm (12.%) were the most common violent offence committed followed by indecent assault of a minor (13.9%). One Hundred and ninety Observation Patients (27%) committed more than one offence. In contrast Vorster (1986) differentiated types of crime according to violent crimes (47.3%), property crimes (41.9%) and social crimes (10.8%). Zitrin *et al* (1976) reported that violent crimes among offenders suspected of having a psychiatric illness were significantly higher than in the general public, and Gunn and Taylor (1994) showed that a person with schizophrenia was six times more likely than other inmates in a prison population to commit a violent offence.

5.4.3 Types of Offences Committed

Murder, assault with intent to cause grievous bodily harm, and theft were the three most common offences committed in this study at proportions of 12%, 12 % and 11% respectively. Attempted murder consisted of 4% of the total offences. Medicott (1976) reported that a positive family history of psychiatric illness was present among majority of the awaiting trial prisoners referred for psychiatric evaluation whom were charged with murder or attempted murder.

People suspected of having a psychiatric illness, such as schizophrenia was commonly associated with the criminal offences of murder and attempted murder as demonstrated by Pal (1997). This finding was more recently reported by Fazel and Grann. (2006). Men with alcoholism and emotionally charged women were

circumstantial factors respectively in the assessment of responsibility in criminal offences of murder and attempted murder according to Masle *et al* (2000). However, Stuart and Arboledo-Florez (2001) confirmed in their study at Queens University, Ontario Canada that people with mental illness and substance use disorders are not major contributors of violent crimes and that perceptions of psychiatrically ill people as criminally dangerous appear to be greatly exaggerated.

There were a high number of sexual offences reported in this study as shown in table 5.2. Sexually related offences comprised 22% of all crimes committed. According to Dunsieth *et al* (2004), sexual offenders form a significant proportion of offenders suspected of having a psychiatric illness and they recommend this group should be placed on sex offender management programs with the capacity to treat psychiatric illnesses. McElroy *et al* (1999) reported in their study among men convicted with sexual offences that recognition and treatment of major psychiatric disorders may increase the chances of rehabilitation, reduce recidivism and public victimisation.

Table 5-2 Types of Sexual Offences

Sexual Offences	Percent
Rape of a minor	9%
Rape or an adult	7%
Indecent assault of a minor	4%
Attempted Rape of a minor	1%
Attempted Rape of an adult	1%
Total	22%

Theft and Housebreaking with intent to steal in this were the two most common property crimes committed, consisting of 11% and 8% respectively. People suspected of having a psychiatric illness, especially those with schizophrenia, are 2.5 times more

likely than the general population to be convicted of crimes against property than the general population as shown by Modestin and Ammann (1996). Criminal rate in schizophrenia also depended on the stage of the illness.

5.5 Outcome of the forensic observation period

5.5.1 Criminal Responsibility among Observation Patients

Although 257 (35.1%) of Observation Patients were found to be responsible on the 1st leg of the Criminal Procedures Act, 268 (36.6%) of the sample (n = 732) were found responsible on the 2nd leg of the same Act. This is consistent with the study by Vorster (1986) that showed that having a mental illness did not necessary negate responsibility. The relationship between criminal responsibility and mental disorders are well documented in the literature, especially among criminal offenders with psychosis, impaired intellect and substance use at the time of incarceration, Brennan et al (2000).

This study confirms that the significant variable ($p<0.05$) of criminal responsibility was associated with a prior forensic history and a the commission of a violent crime.

5.5.2 Competency to Stand Trial among Observation Patients

A high proportion of Observation Patients (61.6%) were found unfit to stand trial, which is consistent, the study by Vorster (1986) who found a slightly higher proportion of 73%. This is also consistent with another local forensic facility in the

country, Valkenberg Psychiatric hospital in the Western Cape, as reported by Mahlangu (2006) where on average, only 45 to 55 percent of the observation patients were found to be mentally fit and released back into the criminal justice system. Consistent with international literature is the 62% incompetency rate found by Lamb (1987).

Variables in this study that significantly correlated ($p < 0.05$) with the lack of competence to stand trial included, being male, intoxicated at the time of the offence, having committed a non- violent crime committed and the presiding officer being the source of referral. This is consistent with the study by Mossman (2007) of 351 pre-trial defendants who had similar demographic profile, source of referral and psychopathology as was found in this study.

6 CHAPTER SIX: CONCLUSION

This retrospective study of clinical records of offenders referred for psychiatric evaluation at the forensic Unit of Sterkfontein Hospital is consistent with a previous study done 20 years earlier by Vorster (1986) and concurs with other international studies. The study confirms that the typical demographic profile of an Observation Patient is a single, unemployed, poorly educated male in his early twenties with a history of psychiatric illness. These demographic characteristics (gender, age, marital status, educational level) were also strong predictors of substance abuse. Almost half of the sample used/abused substances. Non compliance on medication of those with pre-existing psychiatric illness was another characteristic found to contribute to criminal behaviour. A prior forensic history also is also associated with criminal behaviour in this population. The study confirms the high rate of psychotic disorders in this group as well as the co-morbid use of substances, especially alcohol at the time of committing the offence. Consistent with the literature is the high rate of substance use and violent crimes in this sample. The study furthermore demonstrated, as shown internationally, that the criminal offence of murder or attempted murder was increased in this sample of Observation Patients. Family as a complainant was also significant in this study as a source of the reporting of criminal behaviour. Variables found to be significantly correlated ($p < 0.05$) with lack of competence to stand trial included, being male, intoxicated at the time of the offence, committing a non- violent crime, and referral by the presiding officer. Variables that significantly correlated ($p<0.05$) with criminal responsibility, include a prior forensic history and committing a violent crime. The high rate of sexual offences towards a minor is of important concern. The concern of cognitive deficits was clearly demonstrated by the high proportion of

intellectual disability of offenders in the sample, especially in terms of re-offending and rehabilitation of these specific offenders.

Two general conclusions can be drawn from this study as compared to those reported in the literature. First, major determinants of criminal behaviour among Observation Patients continue to be socio-demographic and socio-economic factors such as being young, male, and of lower socio-economic status. Second, substance abuse appears to be a major determinant of violent criminal behaviour and this is true whether it occurs in the context of a concurrent mental illness or not.

7 CHAPTER SEVEN: RECOMMENDATIONS

This study is a source of new statistics on Observation Patients referred to the Forensic Psychiatric Unit of the Sterkfontien Hospital from the Criminal Justice System. It is also envisaged that the results obtained in this study would made available to the Head of the Establishment at Sterkfontein Hospital, the Gauteng Health Department, the Criminal Justice System and other policy makers to develop new means of working collaboratively to assess, diagnose, and respond appropriately to Observation Patients at the Forensic Unit at Sterkfontein Hospital.

People with mental illness require a comprehensive community –based treatment approach that provides essential services, ensures public safety and reduces both criminal behaviour and recidivism. While law enforcement, criminal justice and correctional services officials increasingly recognise the need to work closely with mental health, substance abuse, and social service practitioners to address the special needs of people with mental illnesses, the necessary resources are generally not available. As a result, a large number of people with mental illnesses and substance abuse disorders are repeatedly recycled through psychiatric hospitals and prisons, providing little if any benefit to the individual or the community. After controlling for demographic and historical variables the following recommendations are based on the results obtained from this study, the current available limited resources, policies and modifiable clinical variables among mentally ill people to control criminal behaviour.

- Improved co-ordination between the different sectors involved in the process of the Observation Period of psychiatric evaluation and assessment. This

includes the South African Police Services, Criminal Justice System, Health Department, Social Services and Correctional Services.

- Prevention and control of substance use especially alcohol among the mentally ill to control criminal behaviour, and the management of dual diagnosis in a single comprehensive setting. This highlights the need of the establishment of dual diagnosis units in psychiatric hospitals in the country.
- Provision of specialised treatment and rehabilitation at Sterkfontein Hospital given the high prevalence of intellectual disability among the Observation Patients.
- Caution in deinstitutionalisation of mentally ill offenders without proper structures in place within the community to manage and rehabilitate offenders.
- If a lack of adequate community resources and services is one of the main reasons for the criminalisation of the mentally ill, then the improvement of community services is obviously central to making systemic changes.
- The development of community resources, particularly the availability and accessibility of emergency mental health services to avoid criminalisation of the mentally ill.
- Control psychiatric symptoms in patients with psychotic disorders and promote medication compliance.
- Family and Community psycho-education in terms of recognising relapse and as an aid to compliance on medication and preventing criminal behaviour.
- Integrated services that provide treatment, case management and housing that will serve the entire community's interests by reducing homelessness and public disturbances.

- Reducing inappropriate detention and the number of detainees by increasing early treatment involvement, and thus breaking the cycle of decompensation, arrest and incarceration.

8 APPENDICES:

Appendix 8-1: Letter of Consent to conduct the Study

The Superintendent: Sterkfontein Psychiatric Hospital

Re: Application for Consent to use clinical records for Observation Patients for the period 1st January 2002 to 31ST December 2004

Dear Sir

I am currently registered in the second year Registrar Programme in the department of Psychiatry of the University of Witwatersrand. As part of my coursework I am required to do a research survey of a particular aspect in psychiatry.

The research study is to establish the demographic profile of mentally ill defendants admitted for 30-day psychiatric evaluation and observation, their psychopathology, substance use, competence to stand trial and incidence of criminal responsibility.

The results of this survey will form a basis of my research for my speciality degree in psychiatry (MMED) and would be assessed only by the educators in the department of Psychiatry at the University of the Witwatersrand. The results would be available you, your staff and related departments

My contact details are given below.

Thank you for your time and your input is highly appreciated.

Dr Anben Pillay
0823383280/ (011) 951-8000

Appendix 8-2: Data Collection Sheet

DATASHEET: FORENSIC PSYCHIATRY NO: ___

A. File number, date of admission for observation and Complainant:

File no:		**COMPLAINANT**	**1. Immediate Family**	
			2. Relative	
Date of admission			**3. Neighbour**	
			4. Stranger	

B. Demographic Profile at time of the Offence:

1. **Mental illness**

MENTAL ILLNESS	
1. Psychotic Disorder	
2. Mood Disorder	
3. Substance Induced Mental Disorder	
4. Substance Induced Intoxication	
5. Anxiety Disorder	
6. Dementia	
7. Personality Disorder	
8. Mental Retardation	
9. Mental illness due to General Medical Condition	
10. No Mental Illness/Disorder	
11. Other (specify)	

2. **Age Group**

AGE GROUP:	
1. 18 – 21	
2. 21 – 30 YEARS	
3. 31 - 40 YEARS	
4. 41 – 50 YEARS	
5. 51 – 60 YEARS	
6. > 61 YEARS	

3. **Gender**

Male	
Female	

4. **Residential Region: ----------**

5. **Marital Status:**

a. Single	
b. Married	
c. Divorce	
d. Widowed	
e. Separated	
f. Living with someone	

6. **Employment:**

Employed	
Unemployed	

7. **Level of Education**

No formal schooling	
Primary education	
Secondary education	
Tertiary education	

8. **Previous Mental Illness**

Yes	
No	
Not Known	

9. **Compliance on Medication**

Yes	
No	
Not previously on medication	
Not Known	

10. **Substance use**

Substance use	**Yes**	**No**	**Not Known**
1. No history of use			
2. Past history of use			
3. Current history of use			
4. Intoxicated at the time of the offence			

Type of substance use	
1. Alcohol	
2. Cannabis	
3. Other (specify)	

11. **Previous Forensic History**

Yes	
No	
Not known	

12. **Criminal Charge**

CHARGE			
Violent Crime		**Non-violent Crime**	
1. Murder		**1. Theft**	
2. Attempted Murder		**2. Housebreaking**	
3. Rape		**3. Shoplifting**	
4. Indecent Assault		**4. Intimidation**	
5. Assault with GBH		**5. Fraud**	
6. Robbery			
7. Property Damage		**6. Other (specify)**	
8. Arson			
9. Other (specify)			

C. Source of Referral

13. **Referral**

SOURCE OF REFERRAL	
1. Court	
2. S.A.P.S	
3. Family	
4. Offender (self)	
5. Other	

D. Competency to stand Trial

14. **Fitness to stand trial**

Yes	
No	
Deferred	

E. Criminal Responsibility

15. **1st leg of section 78**

Yes	
No	
Deferred	

16. **2nd leg of section 78**

Yes	
No	
Deferred	

F. Psychopathology

17. **Psychosis at Time of Offence**

Yes	
No	
Not Known	

Appendix 8-3: Protocol Approval by the Postgraduate Committee

Faculty of Health Sciences

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

7 York Road PARKTOWN Johannesburg 2193 Telegrams WITSMED Telex 4-24655.SA
FAX 643-4318 TELEPHONE 717-2075/2076
E-MAIL healthpg@health.wits.ac.za

DR A PILLAY
P O BOX 10209
LENASIA
1820

APPLICATION NUMBER 8426392
STATUS (DEG 65) (MMQ00) PZZ

2005-09-14

Dear Dr Pillay

Approval of protocol entitled The demographic profile, substance use, competence to stand trial and criminal responsibility among "observation patients" admitted for forensic psychiatric evaluation at Sterkfontein Hospital, Gauteng, South Africa

I should like to advise you that the protocol and title that you have submitted for the degree of Master Of Medicine (In Psychiatry) have been approved by the Postgraduate Committee at its recent meeting. Please remember that any amendment to this title has to be endorsed by your Head of Department and formally approved by the Postgraduate Committee.

Dr. RG Thom, Prof M Vorster has/have been appointed as your supervisor/s. Please maintain regular contact with your supervisor who must be kept advised of your progress.

Please note that approval by the Postgraduate Committee is always given subject to permission from the relevant Ethics Committee, and a copy of your clearance certificate should be lodged with the Faculty Office as soon as possible, if this has not already been done.

Yours sincerely

S Benn (Mrs)
Faculty Registrar
Faculty of Health Sciences

Telephone 717-2075/2076

Copies - Head of Department____Supervisor/s

Appendix 8-4 : Ethics Approval For Study

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Pillay

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER M050450**
PROJECT	The Demographic Profile, Substance Use, Competence to Stand Trial and Criminal.....
INVESTIGATORS	Dr A Pillay
DEPARTMENT	Pscyhiatry
DATE CONSIDERED	05.04.29
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 05.07.20 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Dr R Thom

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Appendix 8-5: Approval of Study to be conducted at the Forensic Unit of Sterkfontein Hospital

ADDRESS : Sterkfontein Hospital
Private Bag X2010
KRUGERSDORP – 1740

TEL. NO. : (011) 951-8257
FAX NO. : (011) 956-6907
E-MAIL : raymondbi@gpg.gov.za

ENQUIRIES : Dr M R Billa

Dr. A R Pillay
Registrar: Sterkfontein Hospital
KRUGERSDORP

Dear Dr. Pillay

Re: Research to be conducted at Forensic Unit: Sterkfontein Hospital

Your letter dated 22 November 2005 refers.

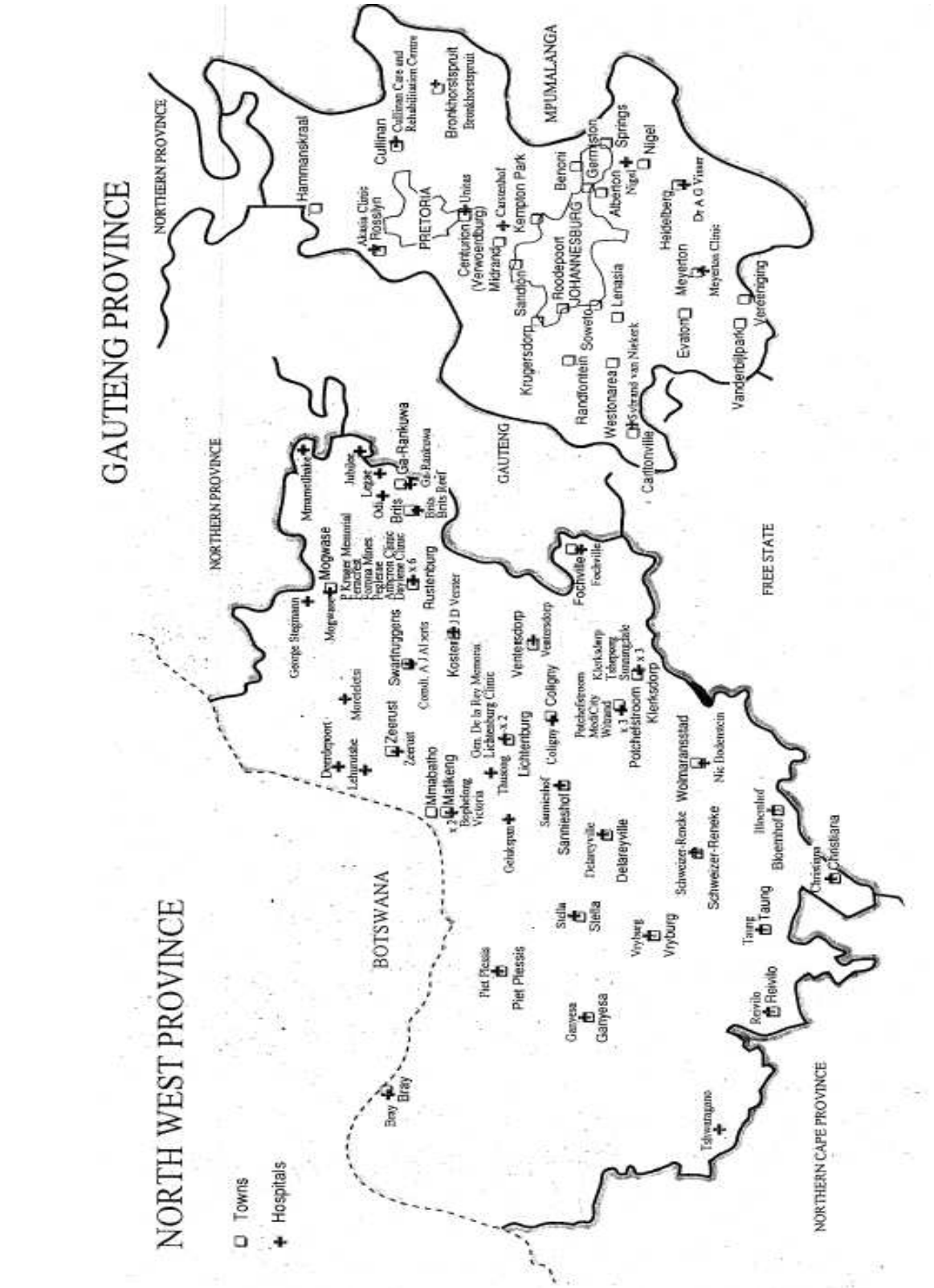
Permission is hereby granted, as previously indicated, for you to conduct research at the hospital on the research: Demographic profile, substance abuse, competence to stand trial and criminal responsibility among 'observation patients' admitted for Forensic Psychiatric evaluation at Sterkfontein Hospital, Gauteng, South Africa.

Wishing you all the success in your study and hope that this may be of use to our hospital community.

Yours sincerely

Dr. M R Billa
CEO
22 November 2005

Appendix 8-6 : Catchment Area for patients referred to the Forensic Unit of Sterkfontein Hospital.



Appendix 8-7 : Presentation of Data at Department of Psychiatry, University of Witwatersrand, Research Day - 2005

1	PROGRAMME	1
2	What distinguishes GREAT scholars from the GOOD ones? - Professor J D Jansen	2
3	A screening of mental health symptoms amongst males in conflict with the law, at a detention center - Dr L Myers	3
4	Depression in South African Black Patients with Rheumatoid Arthritis – A Study Proposal at Johannesburg Hospital - Dr Anersha Pillay	5
5	Combination of Antipsychotics and Mood stablizers in maintenance treatment of bipolar patients in community practice - Dr C Chirculescu	7
6	Cortisol Secretion and Traumatic Stress Among SA Metro Policemen: A Longitudianl Study - Dr U Subramaney	9
7	Schizophrenia relapse in a community mental health setting - Dr N Kazadi	11
8	The demographic profile, substance abuse, competence to stand trial and criminal responsibility among "observation patients" admitted for forensic psychiatric evaluation at Sterkfontein Hospital - Dr Anben Pillay	13
9	Gender beliefs and attitudes of parents of children with intersex conditions - Ms E Rebello	15
10	The effect of fluoxetine and amitriptyline on glucose metabolism in depressed Patients - Dr W Duncan	17
11	List of Pharmaceutical Companies	18

University of the Witwatersrand
Department of Neurosciences: Division of Psychiatry
Annual Psychiatry Research Day 14 June 2006

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