The handing over by the South African Police Services (SAPS)

and

outcome of suspected mentally ill patients

at

Chris Hani Baragwanath Hospital (CHBH).

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfillment of the requirements for the degree of Master of Medicine in the branch of Psychiatry.

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DECLARATION

I, Dr G Jonsson, declare that this research report is my own work. It is being submitted in partial fulfillment of the requirements for the degree of Master of Medicine in the branch of Psychiatry. It has not been submitted before for any degree or examination at this or any other University.

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DEDICATION

This work is dedicated to all people suffering from chronic debilitating psychiatric illnesses.

PRESENTATIONS

1. Oral presentation

   20th Annual Psychiatry Research Day - Department of Neurosciences, Division of Psychiatry, University of the Witwatersrand

   Wednesday 11 June 2008 - Killarney Country Club.

2. Poster Presentation

   15th Biennial SASOP National Conference

   11-14th August 2008 - Fancourt Hotel, George.

ABSTRACT

AIM: To study the process of handing over custody by South African Police Service (SAPS) of suspected mentally ill patients at Chris Hani Baragwaneth Hospital (CHBH) and the outcome of such patients.

METHODS: The study was a retrospective record review of patients, 18 years and older, referred by SAPS to the Emergency Department at CHBH. Completed MHCA Form 22, during the period July 2007 to December 2007, were obtained from the hospital records. The forms were analysed to determine the compliance of SAPS and the medical practitioners in completing these forms. Demographics and clinical characteristics, and the final outcome of the study population were obtained from the hospital notes.

RESULTS: During the study period, 708 of the 718 patients handed over by SAPS to the emergency department of CHBH had Form 22's, 579 (81.78%) of the patients were males. The majority of patients were between the age 26 - 50 years (65.39%); unemployed (80.23%), achieved a Grade 10 or lower level of education (55.65%) and were single (84.32%). 378 (53.39%) patients had previously abused substances, 47 (6.64%) had a forensic history and 552 (77.97%) had a past psychiatric illness. SAPS officials had correctly completed 86.16% of the forms, whilst the medical practitioners had only correctly completed 9.89% of the forms. Of the 718 patients

handed over by SAPS and admitted to the medical admissions ward, 319 (44.06%) were discharged for outpatient care, whilst only 272 (38.42%) were admitted to the psychiatric ward for further inpatient psychiatric care and 102 (14.41%) admitted to the medical wards for further inpatient medical care.

CONCLUSION: The findings indicate that the SAPS are better at complying with the regulations of the Mental Health Care Act as compared to the health care professionals in the emergency department of CHBH. It is recommended that improved assessment at the emergency department would reduce the number of admissions and costs to the already resource constrained hospital.

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1.0 INTRODUCTION

Throughout the world, new legislations have raised the issues and profiles of mental health care users (MHCUs). They serve as an advocacy for MHCUs and play an extremely important role in protecting their human and health rights. The roles, responsibilities and terms of collaboration between mental health care practitioners (MHCP) and the police services are also included in these legislations.

In South Africa, the Mental Health Care Act No 17 of 2002 (MHCA) (1) and its regulations (2) clearly outline the roles and responsibilities of the South African Police Services (SAPS) especially with regards to their interactions with MHCUs and MHCPs. However, it would appear that this is often not translated into implementation. Consequently, there is a need to develop a South African model that helps overcome this difficult grey area between the various stakeholders. It is imperative to forge collaborations between the two services, uniting the expertise of each service and at the same time recognizing and not confusing the specific roles of each service.

2.0 LITERATURE REVIEW

2.1 Mental Health Legislations defining the role of police services

2.1.1 International

Legislations relating to apprehension of mentally ill persons in the United Kingdom dates back to the Vagrancy Act of 1714 (3) which states: " And whereas there are sometimes in parishes, towns and places, persons of little or no estates, who, by lunacy, or otherwise, are furiously mad, and dangerous to be permitted to go abroad, and by the laws in being, the Justice of Peace and officers have not the authority to restrain and confine them; be it therefore enacted by the authority aforesaid, that it shall and may be lawful for any two or more of the Justices of the peace of any county, town or place in England, Wales or Town of Berick upon Tweed, where such lunatic or mad person shall be found, by warrant under their hands and seals, directed to the constables, church wardens, and overseers of the poor of such parish, town or place, or some of them, to cause such person to be apprehended…"

More recently, Section 136 of the Mental Health Care Act of 1983 (4) of the United Kingdom allows police officers who find people in a public place (who appear to be suffering from a mental disorder, in need of care or control and to protect the interest of the person or the public) to remove the person to a place of safety. Once

removed the person may be detained there for a period not exceeding 72 hours for the purpose of enabling them to be examined and for making the necessary arrangements for further treatment or care. The "place of safety" is defined as a hospital, police station, mental nursing home or residential home for mentally disordered people. In the practical application of this section of the Act, the police often transport these patients to the hospital casualty department (the appropriateness of this is disputed). The onus of the initial assessment is then placed on the emergency room doctor and senior nurses.

Lynch, Simpson, Higson & Grout (5) in an effort to determine the level of knowledge in terms of this section of the Act amongst doctors, nurses and police, performed a questionnaire based study. They report that 17% of all those surveyed failed to recognise that a person has to appear to be suffering from a mental disorder in order to be removed to a place of safety - a fundamental requirement in order to enforce the Act; 40.2% of the police did not know that the Section 136 was a power entrusted to the police; and 50% of senior doctors did not consider the casualty department to be a place of safety, but rather a police station. Lynch, et al (5) also reported that most doctors working in the casualty department had insufficient training in recognising and managing mental illness and therefore should not have to be expected to assess such patients and make decisions relating to further care and treatment. They further reported that most hospital casualty departments are often inappropriately equipped and staffed and that because detention under the

aforementioned Act lapses once the assessing doctor decides no further treatment or care is required, accurate records of the police usage of Section 136 of the Act is not available.

In Canada, changes to the Canadian Mental Health Act (6) came into effect in December 2001 in response to the government's ongoing mental health reform process. Brian's Law 2000 of the Mental Health Legislative Reform (formerly known as Bill 68) ensures that people with serious mental illness get the care they need. Under this law police do not actually have to observe "disorderly conduct" before they can take a person for a psychiatric examination. Police are able to act when they have "reasonable and probable grounds to believe" that a person is behaving or has behaved in a disorderly manner and is apparently suffering from a mental illness. Police are thus able to act on reliable third party information.

The Australian Mental Health Care Act (7) states that where a member of the police force has reasonable cause to believe that a person has a mental illness and that the persons conduct is or has recently been such as to cause danger to himself or others, members of the police force may apprehend that person, using only such force as is reasonably necessary for the purpose, and take him or her as soon as is practical to a medical practitioner for examination. The South Australian government has developed very clear guidelines and protocols (8) relating to the role of the police in the Act. In these guidelines it is stated that in situations where: a) The

person is known to have mental illness and has a history of violence or is either a threat to the safety of others, to property, shows significant self neglect, or has a high level of distress; or b) The person has a history or presents a current threat of deliberate self harm, is behaving in a bizarre or unusual way, or displaying gross mismanagement of personal affairs; then police officers should contact mental health services directly. In Western Australia, a standing advisory group is responsible for facilitating liaison between the Police Service and the Mental Health Division of the Health Department. The committee is responsible for ensuring consistent state-wide implementation of all policies, monitoring and evaluation of the implementation of these policies, and consulting with the relevant stakeholders.

In the city and county of Honolulu, Hawaii (9), police can intervene if a person is seen to be imminently dangerous to self or others or is threatening suicide. The police have the authority to make an emergency apprehension when a suspect is deemed mentally ill, however, hospitals often only hospitalize an individual involuntarily if he is imminently dangerous. There are concerns about the ability of the police to correctly identify those suspects who may have a mental illness. Police officers are not diagnosticians, yet they are required to make a determination as to whether a person may have a mental illness or not.

In summary the Mental health legislations in most countries throughout the world tend to define the role of the Police Services with respect to the care of mentally ill persons.

2.1.2 South Africa

In South Africa, the new MHCA (1) was promulgated in 2002 and implemented in 2004. The new MHCA raises the issues and profiles of mental health, acts as an advocacy for MHCUs and plays an extremely important role in protecting the human and health rights of people with mental illness and intellectual disability. The establishment of review boards for the centralization of administrative duties within the mental health agency is intended to be the antidote for deficiencies of community based care (10, 11). All decisions should be taken in the best interests of the user, cared for in the least restrictive environment and as close to their home as possible, and with appropriate professional and social support (12, 13). The MHCA ensures that there is equal access to the same quality comprehensive mental health care for each segment of the population. People dealing with MHCUs have to consciously and consistently apply themselves to ensuring that the users' rights are not infringed upon and that the best possible care, treatment and rehabilitation is provided – within the financial constraints available. This new legislation reinforces South Africa's Mental Health Policy which promotes community care. It strives to uphold the rights and legal status of people affected by severe psychiatric conditions as guaranteed by the constitution of South Africa in the Bill of Rights and Health Rights charter (14). However, the actual implementation of the Act and the outcome has still to be formalized with the various stakeholders. Szabo (13) in his editorial states that "The mental health system is highly fragmented, with many sufferers not

seeking help due to stigma, lack of funds or an inability to navigate their way through a bewildering maze to get treatment".

The MHCA also recognizes and protects the rights and needs of people with severe psychiatric conditions in the context of the criminal justice system. Similar to Legislations worldwide, this Act defines a collaborative and mutually co-operative relationship with the SAPS and the MHCP, the Judiciary and Emergency Medical Services (EMS) at a local and national level. The act serves to avoid the detention of acutely ill users in police cells and prioritizes prompt access to local hospitals. It defines the role of the SAPS in the transportation of MHCU, involuntary admission and within the criminal justice system. It also sets out a clear policy and working relationship between SAPS and EMS especially with regards the transportation of MHCU and the humane handling of users when they are acutely ill.

More specifically, the MHCA and its regulations (2) states that if a member of the SAPS has reason to believe, either from personal observation or information obtained from a MHCP, that a person is mentally ill and is likely to inflict harm on himself or others, that member must apprehend that person and cause that person to be either: 1) Taken to an appropriate health establishment for assessment of the mental health status of that person or, 2) Handed over into custody of the head of health establishment (HHE) or any designated person to receive such a person. The

handing over of custody includes the completion of a MHCA Form 22 by the HHE, SAPS member and the MHCP.

The implementation of Act requires the ongoing training of members of SAPS in their roles and responsibilities, MHCU's rights and on general mental health related issues. The outcomes/impact of the training should be continually monitored and evaluated.

2.2 Compliance with Legislations by Police Services and other stakeholders

Nancy Wolf (15), describes the problem of cooperation between the Mental Health and Law Enforcement systems, and states that specialization of both organizations and non co-ordination between the two systems often made both systems appear ineffective and inefficient. This may result in an increased incidence of violent and disorderly behaviour which may make mentally ill patients appear more dangerous. It may also result in some individuals with mental illness having frequent contact with the police services due to their socially or criminally deviant behaviour causing fear among community members. Further factors leading to non co-ordination between both systems include the inability of the mental health system to provide adequate, continuous and integrated care to these patients and inadequate liaisons between the two systems.

In South Africa, the two departments often differ with regard to definitions of mental illness. A lack of clear boundaries exists as to when mentally ill patients should be held responsible for their criminal behaviour or not. This further aggravates the relationship between the two departments. Furthermore, Psychiatrists often differ in their opinion from police officers with regards to interpretation of various laws. A mentally ill person for example who is admitted due to a risk from a dangerous situation on the street is often viewed as problematic in the era of constrained resources. Development of community policing forums and outreach programmes

may make the police more aware and more responsive to community members with a history of psychiatric illness and lead to more informal mechanisms available within the community for dealing with patients with disruptive behaviour.

MHCP's and police officers often complained about a lack of communication between the two departments (15). Patients often enter either system without the relevant stakeholders being aware of the person's diagnosis, past history of violence and current treatment attendance at a psychiatric clinic or hospital. These facts, if unknown, often lead to inappropriate decisions being made by either the police or the mental health care practitioner and to inappropriate disposition of patients. Wolf (15) also reports that there was an increase in patient transfer between departments in an effort to lighten their respective loads. Prisons and correctional services then became the main care givers to patients with serious mental illness. A lack of psychiatric treatment in jails may also lead to a decompensation in the mental health of the mentally ill. Community services and psychiatric facilities could also not provide adequate treatment for "difficult" mentally disordered patients, especially those with criminal tendencies or histories of repeated hospitalizations or recidivism. Similarly, hospitals and psychiatrists in particular complained that the police often 'dump' homeless mentally ill patients in emergency departments of hospitals. Co-morbid substance abuse problems may lead to a decompensation in patient's mental health and lead to an increase in behaviours that bring the individual into contact with the police.

Wolff (15) further reported that persons with mental illness have higher rates of arrest than persons who are not mentally ill. Jails often function as an alternative form of institutional care for the mentally ill. Many police encounters with the mentally ill involve the police providing services (transporting patients to the hospital), mediating conflicts and informally intervening in petty crimes (e.g. loitering). Often charges are not laid against the person with mental illness. However failure to treat symptoms related to mental illness increase the likelihood that persons with mental illness will have contact with the police. The public citizens' health research group (16) found that violent behaviour is often the primary reason for arrest. Rates of violence triple if the seriously mentally ill person has a substance abuse problem (17). It is important to note that the likelihood of violent behaviour is elevated only for those mentally ill persons who are actively psychotic.

The mental health system and law enforcement agencies need to agree that the mental health system will provide liaison services to the police and the police departments need to provide emergency assistance to mental health workers and transport the mentally ill. A critical goal for the mental health system is to establish criteria as to which types of behaviour necessitate a mental health system response or a psychiatric evaluation. Specific sets of protocols need to be developed to guide the mental health professional in responding to social or criminal behaviours associated with psychiatric symptoms. These need to be easily interpreted by police officials who encounter these behaviours in the community.

Methods of sharing information between the two systems are desperately needed. Representatives from each system may be unskilled in diagnosing the other systems problem (15). The mental health care system and police departments need to develop special programmes for identifying and managing behaviours, screening programmes and diversion programmes that help to place the person in the appropriate setting.

Police are often called on to deal with complex situations involving persons with psychotic behaviour, behaving bizarrely, exhibiting violent behaviour or to attend to persons who have attempted suicide. The potential for violence underlies the majority of psychiatric emergencies.

The police are often the individuals who decide whether the person with mental illness enters the mental health system or the criminal justice system. This is governed by their power to protect the safety and welfare of the community and their obligation to protect persons with disabilities. Often both principles are involved when police are dealing with persons with mental illness who pose a threat of danger to the community or themselves (18).

The South African Police have a legal obligation to respond to all calls for assistance involving mentally ill persons by the community or by mental health care practitioners. This is called for in the new MHCA (1). Police are often the first to

respond to these situations and are responsible for recognizing the need for treatment of a person with mental illness or the transfer of these people to mental health care facilities (19). They have grown accustomed to this and view it as one of their duties. A major problem in South Africa and worldwide is that they have little or no training in triage of this kind.

The law provides the legal structure and gives the police officers power to intervene. However it is often difficult to predict the police officers response to this law (20). Unlike mental health care professionals, the police are not trained in psychiatric care and intervention which they may draw on in a situation which involves the disposition of a seriously mentally ill individual. As with all police decisions, they need to choose the most appropriate disposition in these situation. The definition of a mental disorder, the overlap of culture, and various community practices may lead to the individual being labelled a criminal, having a psychiatric condition or just being odd. Dispositional decisions are often extremely difficult for the mental health care practitioner let alone for the untrained police officer.

Bittner (20) found that police made psychiatric referrals reluctantly. He found that there needed to be indications of external risk accompanied by signs of serious psychological disorder for the police to justify a psychiatric referral. The decision to take someone to hospital was based on overwhelming conclusive evidence of illness. Bittner (20) found that an act of self injury was obvious justification for involuntary

admission. In those cases where an overt act or threat was not present, the presence of a psychiatric history, creation of a public disturbance and or bizarre conduct was considered in initiating an involuntary admission. The probability of the police initiating a hospitalization was affected by criteria that had been established for involuntary hospitalization versus other often easier less time consuming dispositional alternatives. Often the more procedural steps between the apprehension and the hospital, the less likely it is that the police make an apprehension. Wolff (15) noted that the police officer must calculate how much time the alternative courses of action would consume as compared to hospitalization. More rigorous legal standards for involuntary mental hospitalization have meant that the simple presence of mental illness and need for service are insufficient to warrant involuntary admission. Instead the individual must be seriously mentally ill and dangerous to self or others. Teplin & Pruett (21) found that the disposition of a mentally ill patient is based less on the degree of apparent psychiatric symptomatology but more on a complex array of contextual and situational variables.

Teplin, et al (21) in their article also stated that the low rate of utilization of the emergency hospitalization route was due to a host of characteristics due to the post de-institutionalization era. Police officers were aware of the strict requirements for admission to hospital, and that persons who were alcoholics, narcotic addicts or defined by hospital staff to be dangerous were not allowed admission to the hospital, even if they exhibited signs of serious mental illness. People with criminal charges

pending were deemed unacceptable. They needed to be either actively delusional or suicidal, a practice difficult for the untrained police officer to make.

Police officers also felt that managing the mentally ill went unrewarded and unrecognized as psychiatric dispositions were not reflected on their arrest quota. The above coupled with the scarcity of placements and hospitals strict admission criteria, often inhibited the police from making psychiatric referrals to hospitals. Without the aid of the mental health system, police out of necessity, resort to their own devices to maintain these patients in the community. It is often unclear whether the person be arrested, hospitalized or tolerated in the community. These variables have largely been unstudied in the South African context. The police officers decision is often based less on the degree of psychiatric symptomatology but more on the psychosocial and institutional factors present.

The extent of mental health services in South Africa and the unavailability of involuntary outpatient commitment as an alternative mode of treatment are likely to affect the police officers decision. The police departments in South Africa need to be made aware of their extensive role as a mental health resource and how they assist in the care of the mentally ill.

The decision to arrest or refer to mental health practitioners or psychiatric hospitals is a difficult one (9). Research on the factors influencing police discretion when

dealing with individuals who may have mental illness has generally focussed on the seriousness of the offence and or whether the manifestation of mental illness (especially dangerousness) meets legal requirements of involuntary admission. Previous experience of the officer and knowledge on psychiatric issues then begins to play a very important role.

Police admissions to psychiatric hospitals have been a focus of attention for those who advocate a social control hypothesis in relation to psychiatry. This would imply that police officers over identify rather than under-identify mental disorders. With regard to the entry of mentally disordered individuals into the criminal justice system Robertson, Pearson & Gibb (22) showed that the occurrence of violence at the time of arrest increased the chances that the person with mental illness be taken to jail. It is debatable that in areas with limited access to mental health services this may prove to be useful as psychiatric treatment may be more accessible in jail than in the community. In South Africa this may not be a viable option as mental health practitioners are often not attached to the court or the prison. Most countries have laws against detention in jail of mentally ill persons who are not obviously criminals. This however is not explicitly stated in our new MHCA.

Police officer attitudes and their use of discretion in situations involving the mentally ill is an area of considerable research overseas (23). In many situations there is considerable potential for the disposition of mentally ill persons to be influenced by

the police officers personal attitudes or beliefs, or their assumptions about persons with mental illness. Some police officers are more prone to arrest persons with mental illness, some try harder to have these people hospitalized and some just simply release them with no further disposition. The community often initiates the interaction between the police and the person with mental illness. The community's demands may also influence the decision with regard to disposition of the person concerned. It is often cited that the police officers need and want rapid on site assistance from mental health professionals when they are called on to deal with difficult situations involving persons with mental illness.

This is impossible in South Africa with only approximately 320 registered psychiatrists in the country (24). Similarly MHCPs feel they are without the support of the police. This is certainly true for South Africa especially in Gauteng province. What is clear though is that neither the police nor the mental health care system can alone adequately serve the needs of mentally ill persons in crisis, and hence it is essential for the two departments to work together. What is unclear is how various social factors influence the route of referral and the time taken before presentation to psychiatric services overseas let alone in South Africa (25, 26).

In South Africa no such specialized crisis response site or diversion programme exists. In fact emergency department's at most provincial hospitals are used as drop off sites for mentally ill patients in crisis. Although the MHCA states that the SAPS

can be called upon to help with the transfer, removal and transportation of mental health care users to a health establishment, no such regulation exists as to the establishment of crisis response sites or diversion programmes to help with the facilitation of the above process (1).

The police are often the primary referral agencies for psychiatric assistance within the community (27). This is often the result of inadequate access to mental health care in our setting (28, 29). With deinstitutionalization and the influx into the community of persons with severe mental illness, the police are the frontline professionals who manage these patients when in crisis (30). The numbers of mentally ill persons involved with the police have increased, while at the same time, the police officers dispositional options have decreased (19).

Deinstitutionalization is defined as the replacement of long stay psychiatric hospitals with smaller, less isolated community based alternatives for the care of mentally ill people (30). This involves the development of special services and community clinics for these non-institutionalized mentally ill patients. In South Africa there are fewer than 28 acute psychiatric state hospital beds per 100 000 population which is the ideal (31).

Deinstitutionalization has occurred faster than we are able to develop and supply adequate community services and alternatives to hospitalization has frequently

lagged far behind. Often these now newly deinstitutionalized patients, many of whom are chronically severely mentally ill find it difficult to sustain themselves in the community. Easy access to alcohol and other substances, homelessness, community resistance, and stigmatization have created barriers and interfered with any progress these patients may have made. Many of these individuals as a result of the above problems may suffer inappropriate imprisonment due to bizarre or disruptive behaviour which is often a manifestation of their illness. The extent to which imprisonment rates of mentally ill persons are related to deinstitutionalization remains a subject of considerable research and no data is available with regard to the problem in South Africa. This is evidenced to a large extent by the large numbers of mentally ill patients in our jails and by the fact that long term hospitalization in state facilities are no longer permissible due to resource constraints and reduced number of beds. As a result a large number of mentally ill persons may be shunted into the criminal justice system rather than the mental health care system. The criminal justice system has taken the place of the state hospitals and has become the system that cannot refuse. Emphasis needs to be placed on the need to develop case management systems where mental health professionals help these patients overcome access barriers to care (30).

In a study conducted in Canada (32) it was found that inadequate numbers of trained and acceptable mental health care workers were seen as barriers to adequate care. Appropriate psychiatrists with language and cultural competency were also

found to be severely lacking. The psychiatrists available to the state services were overworked and pressed for time. There was a lack of empty beds available for admission as large numbers of patients were being referred as the hospital covered too large an area. A limited understanding and capacity to negotiate the system from the primary health care point of view was found. A lack of information, inadequate and inappropriate referral systems, together with inappropriate professional responses was also found. Disturbances in family support structures and poverty was found to play a vital role in the causation of some of the above problems. There were inadequate and unacceptable interpreter services and families were found to be reluctant in acknowledging mental health problems as stigmatization and rejection were feared. The above problems are as common in a South African context and should serve as a guide in order for us to start identifying areas that are rectifiable.

Access to mental health care is difficult for a vast majority of the population in South Africa. As a result the police are often called upon not only as a source of help but also as a means of transport and a first point of access to care. Interactions between the mental health system and the SAPS in South Africa have been relatively poor up to date.

2.3 Characteristics of patients referred by police services to mental health services

Sims & Symonds (33) studied a sample of referrals from the police for a 12 month period. Here they found that there had been a steady increase in the referrals from the police to the mental health service from the preceding years. They hypothesized that disturbed behaviour in the community was largely a symptom of urban disorganization and that 'socially disorganized patients' tended to concentrate in the decaying parts of the city with poorer housing and multi-occupied dwellings.

A small number of studies have examined the characteristics of patients referred to mental health services by the police: Findings have however not been consistent. Steadman, Deane, Borum & Morrissey (34) found that police referrals in New York City were less likely to involve psychotic individuals, more likely to involve 'mild mental disorder' and less likely to result in admission to a psychiatric inpatient unit. Way, Evans & Banks (35) however found that police referrals were more often due to dangerous behaviour and that police referrals were as serious as those of other patients, but however required more time in an emergency setting and more often required admission to an inpatient psychiatric unit.

Redondo & Currier (36) examined 379 individual patients seen in the psychiatric emergency service in the Monroe County, New York area. 26% were brought by

police under mental health arrest. Compared with the patients who were referred by other sources, the patients referred by the police were significantly more likely to be male, referred because of violent behaviour, to exhibit violent behaviour in the emergency department and have a life time history of violence. Interestingly their patients referred by the police were rated as having more psychosocial stressors but not significantly more likely to be admitted to inpatient psychiatric units.

Redondo, et al (36) compared the reports of police officers in the field with subsequent evaluations of the same patients by clinicians in the psychiatric emergency department. 32% of the police referrals were considered to be violent by the police in the field. Of these patients only 11% were considered to be violent by clinicians at the time of presentation to the psychiatric emergency department. Interestingly a psychiatric emergency service clinician's assessment of a patient being actively or potentially violent was not associated with a psychiatric inpatient admission. Suicidality however, was significantly associated with a psychiatric admission.

Similarly in a study conducted in South Australia, Kneebone, Rogers & Hafner (37) found that most police referrals were young, single, unemployed men with little post secondary education. They found that 72% had a previous psychiatric admission and 39% had been previously referred by the police. Women were significantly more likely to be divorced and were on average 8 years older than their male counterparts.

Only 15% of the sample were employed. 40% of their sample had a forensic history, 64% had a history of assaultativeness and 33% had a history of attempted suicide.

Deraas, Hansen, Giaever & Olstad (38) conducted a retrospective, record based, descriptive study comprising 101 acute psychiatric referrals. Substance abuse was noted in 43%. In this study the police assisted in one third of all admissions. Fry, O'Riordan & Geanelloz (25) examined the relationship between mental health services and police. They conducted a survey of 131 police officers in Sydney, Australia and found that 83% of the police officers surveyed had encountered referrals with drug or alcohol problems in the month preceding the questionnaire. 80% of those police officers surveyed felt that they were confident in dealing with people who are drug or alcohol abusers.

Janofsky & Tamburello (39) studied emergency psychiatric evaluations after diversion to the mental health care system. They found that the most commonly diagnosed condition was a substance related disorder (29% of all cases). Among the major psychiatric diagnoses, Bipolar disorder (15%) and Schizophrenia (13%) were the most frequently made diagnoses. 22% were non psychotic disorders including: personality disorders, adjustment disorders, substance induced mood disorders, and depressive disorder not otherwise specified. However, Redondo et al (36) found in their study of patients referred to psychiatric emergency services by the police that 37% of police referrals had a mood disorder, 18% had a psychotic disorder and 24%

had a substance use disorder. In an Australian study Meadows, Calder & Van den Bos (40) prospectively studied consecutive police psychiatric referrals in Adelaide. Here the most common reason for referral was threat of self harm (28%). Mental illness was only deemed present in 49% and the most common clinical description was "situational crisis" (29%). Schizophrenia was only diagnosed in 18% of referrals.

2.4 Outcome and appropriateness of police referrals

In the United States of America diversion to the mental health care system and emergency psychiatric evaluations were studied by Janofsky, et al (39).The authors reviewed 339 emergency room records of patients referred for psychiatric evaluation via an emergency petition to the Johns Hopkins hospital emergency room from 1 January 2002 to 21 April 2003. In Maryland State any citizen may petition to have individuals brought against their will for an examination by a physician. The authors found that referrals who were brought in on a police initiated petition were significantly more likely to be discharged from the emergency room than those brought in on a health care initiated or court initiated referral. Health care provider initiated referrals were significantly less likely to result in a discharge from the emergency room. 63% of referrals brought to the emergency room were admitted. Of the referrals 4% were medical admissions and 37% of referrals were discharged from the emergency room. Persons with evidence of a mental disorder documented on the referral form had a higher rate of psychiatric admission than those without a mental disorder. Those with evidence of dangerousness documented on the referral form did not have a statistically significant higher rate of psychiatric admission, but those documented with evidence of imminent dangerousness were more likely to be psychiatrically admitted. 68% of referrals admitted involuntarily to the psychiatric hospital had referrals that documented dangerous behaviour towards others or property that could have resulted in arrest. These referrals were more likely to be diagnosed with a major mental illness, to have a previous hospitalization, to have

been on treatment at the time of admission and more likely to be non-compliant on medication. Referrals with a substance related diagnosis in the emergency room were significantly less likely to be admitted psychiatrically.

Watson, Segal & Newhill (41) in their article on police referrals to the psychiatric emergency services and its effect on disposition decisions questioned the appropriateness of police referrals to psychiatric emergency services and questioned whether the police exercised undue influence on hospital admission decisions. They studied a total of 186 patients who were referred by police compared to 577 patients not referred by police in 9 emergency services in California in the United States of America. Their results showed that patients brought by the police were more likely to be subsequently hospitalized, but that they were also more psychiatrically disturbed. They were more dangerous to others and more gravely disabled. They were also no more likely to have a criminal record than patients not referred by the police. They concluded that the police did not exercise undue influence on dispositions nor were the patients they brought in more criminal than others.

In a study conducted by Dunn & Fahy (42), which looked at the demographic and clinical differences between ethnic groups in police admissions to a psychiatric hospital, clinicians judged that more than 90% of police referrals were found to be suffering from a mental illness. The results of the study taken in conjunction with the reasons given by the police for referral, tended to confirm the appropriateness of the

referrals. In this study most police referrals were young, socially disadvantaged individuals and had a previous psychiatric history.

Similarly in Honolulu, Hawaii (9), a study examined the outcome of police initiated emergency referrals and assessed the degree to which police officers accurately identified individuals who met the emergency evaluation criteria, thereby assessing the appropriateness of the referrals. The problem that many officers faced was whether to take the mentally ill person to the police cells or to the hospital for psychiatric evaluation once taken into custody. The choice between the two depended on whether the individual met the criteria for involuntary commitment or whether danger to self or others is imminent. The symptoms also needed to be present when the person was seen by the psychiatrist or psychiatric registrar. It was often found that after a few hours of waiting at the hospital to be seen, the patient calmed sufficiently to be released from hospital. From the above it is often the case that many options open to police are often inadequate. Police often reserve arrest of suspected mentally ill patients as a last resort, and reserve this for those who are too violent and disruptive to be left alone. From the viewpoint of protecting society and the suspect this is an effective option, but the solution is temporary as the suspect's problem, that of mental illness has not been addressed. The only dispositional option that does address the root of the cause of the violation involves hospitalisation, but this often results in the person being released back onto the streets unless strict criteria are met or bed pressure comes into play.

Lamb, Shaner, Elliott, DeCuir & Foltz (43) examined whether outreach teams of mental health professionals and police officers could assess and make appropriate dispositions for psychiatric emergency cases in the community. Of the referrals to the outreach team 79.2% were taken to hospital and 72.3% were hospitalized. In the cases not taken to hospital the team evaluated and intervened in the field within the community. The authors concluded that their team was adequately able to assess and appropriately dispose of psychiatric emergencies in the field. They hypothesized further that if the team evaluated mentally ill people in the field, fewer would be inappropriately incarcerated within the criminal justice system.

There is a severe lack of knowledge regarding police referrals to mental health services in a South African context. Likewise literature regarding this topic in developing countries is also severely lacking.

Temmingh & Oosthuizen (44) studied pathways to care and treatment delays in first and multi-episode psychosis. They found that private sector general practitioners were 4.5 times more likely to be the first contact in first episode psychosis while male multi-episode patients were more likely to first come into contact with the police and be admitted involuntarily. They concluded that pathways to care in the western cape in South Africa correspond to findings from first world and newly industrialized countries.

Cole, Leavey, King, Johnson-Sabine & Hoar (45) set out to determine if patients from ethnic minority groups (Afro-Caribbean's) were more likely to enter less desirable pathways to psychiatric care. They found that black patients were no more likely than other patients to have police involvement in access to psychiatric care. The routes to psychiatric care are different for index episode patients and chronic care patients. The authors found that police involvement and involuntary admissions were strongly associated with the absence of general practitioner involvement and the absence of help seeking by a friend or relative. However, the AESOP study (46) found that when Caucasian patients were compared to Afro-Caribbean and black African patients, general practitioner referrals for the Afro-Caribbean and Black African patients was less common whereas referrals from the criminal justice system were more common for these patients.

2.5 Models of collaboration between stakeholders

With regard to the Police handling of the mentally ill and the sharing of the responsibility of handling the mentally ill by the Police and the Mental health system, Finn & Sullivan (47) found that the core of any specialized unit is to: 1) Screen the mentally disordered individual for the most advisable disposition; 2) Identify an appropriate facility to which to refer these individuals and 3) Provide on scene emergency assistance when necessary.

This alleviates the assessing psychiatrist at the hospital as he would have confidence in the officer from a specialized unit as they abide by the 3 core features. These referrals would then ultimately receive hospitalization as the assessing psychiatrist has confidence in the referring police officer.

Four principle features were identified by Finn, et al (47) to be essential for the success of any specialized unit where the collaboration of police and mental health practitioners are necessary: 1) The development of a formal agreement to collaborate; 2) A description in the agreement of the specific activities that each party in the unit will undertake; 3) The involvement of every important agency and facility that provides emergency services to the mentally ill and 4) Benefits for every participant.

This should lead to more time for law enforcement, reduced danger, increase job satisfaction and show a community dedicated to the well being of the mentally ill population.

In their literature review Hartford, Carey & Medonica (48) described mental health diversion as a process where alternatives to criminal detention are made available to persons with mental illness who have come into contact with the law. Treating the mental disorder, it is hoped, will reduce the likelihood of further offending, and the focus is on helping individuals to access community support and treatment. In one form of diversion, pre-arrest diversion, the police use their discretion in laying charges. Pre-arrest diversion is a complex process that involves informal assessments by the officer on the scene. Teplin, et al (21) found that police often tend not to rely on conventional mental health resource or arrest, but prefer informal disposition because it requires "neither paperwork nor downtime".

Three factors are thought to contribute to subjecting persons with mental illness to criminal prosecution: 1) Increased numbers of persons with mental illness living in the community; 2) Police handling of crises, and 3) Poor access to treatment.

In a study intended to identify best practices between the criminal justice system and the mental health system in four cities in South-western Ontario (48), systemic police programmes for facilitating interactions with persons with mental illness were found

to consist of the following options: 1) Modest in service education on mental health issues; 2) 40 hours of additional training in mental health issues for officers who would then be first responders to calls involving persons with mental illness; 3) A service agreement with a mobile mental health crisis service to attend to calls from the police and 4) A mobile crisis team consisting of mental health professionals and police officers specially trained in mental health issues.

Specialized crisis response sites have been important in the development and implementation of many pre-booking jail diversion programmes for persons with mental illness and substance use disorders (49). These police based diversion programmes identify people with mental disorders and work with diversion staff, community based providers, and the courts to provide a mental health disposition in lieu of jail.

The Montgomery County Emergency Services programme is a pre and post booking diversion programme which was opened in 1974 (49). This programme includes crisis intervention, telephone hotline assistance, mobile crisis outreach and referral to treatment. It also operates a detoxification and dual diagnosis treatment programme. This programme has a no refusal policy for law enforcement officers and allows them to drop off persons in crisis and return to their regular patrol duties.

The Memphis pre-booking jail diversion programme was established in 1988 and has 2 key features namely: 1) An innovative police team (crisis intervention team) and 2) A crisis centre (49).

The Multnomah county programme was established in 1997 and has a crisis triage centre and a police crisis intervention team. The triage centre operates a 24hr crisis hotline, crisis intervention and stabilization, mobile outreach, voluntary sub-acute treatment, detoxification, mental health treatment, referral to out patient facilities, medication management clinics, three holding rooms and secure transport facilities (49).

These crisis drop-off sites provide police with a single point of entry to the mental health system. The co-location of the substance abuse services at the site also eliminates the burden of the police having to discriminate between mental health, substance abuse and other crises. This is particularly important given the high rate of dual diagnosis disorders in the population referred by the police. A no refusal policy addresses one of the largest barriers in the emergency room model by eliminating arrests. Because of the policy, police are not deterred from transporting a person to the crisis centre if they have concerns that the person will not meet criteria for mental health services. Ensuring that all referrals are linked to further follow up care is associated with lower crisis recidivism and possibly with lower criminal recidivism. An analysis of outcomes of specialized police responses to mental health

emergencies found that the arrest rate in these crisis situations was only 6.7%. This is a third of that for non specialized police responses as reported by Teplin, et al (21).

The University of Louisville and the Louisville Metro Police established a crisis intervention team to help improve mental health care delivery to mentally ill persons in distress. This team is composed of police officers who receive specialized training in crisis intervention and psychiatric issues and are preferentially called to investigate police calls that may involve mentally ill persons (50). In their study Strauss, Glenn, Reddi, Afaq, Podolskaya, & Rybakova (50) found that the crisis intervention police officers were able to identify psychiatric emergencies adequately, and refer patients to the emergency psychiatric services who required evaluation and treatment. They also found that these programmes may save money and reduce psychiatric morbidity by referring severely ill subjects for appropriate treatment earlier than might otherwise occur. They believed their data clearly demonstrated that patients referred by these officers were ill and benefited from psychiatric evaluation and care in a manner similar to those who were referred to the emergency psychiatric services by the emergency department or other mental health care practitioners.

Specially trained police officers will then be active and skilful at on scene crisis assessment and intervention. In their study Steadman, et al (34) on comparing outcomes of major models of police responses to mental health emergencies the

authors were able to show that police officers were able to resolve almost two thirds of the mental health disturbance calls on the scene without the necessity of further transportation or use of coercive procedures to facilitate treatment.

Use of cannabis and other illicit drugs may be associated with violence and other offending behaviour. Many individuals come into contact with the criminal justice system as a consequence of illicit drug use. In Australia, as in South Africa, cannabis is one of the leading substances reported in arrests, unintentional injuries, violence, emergency room admissions and treatment admissions. Legal and policy reforms in Australia have led to the development of various cannabis diversion programmes. Recognition of the overlap between justice and health has led to the adoption of a range of court diversion programmes. This places more emphasis on drug treatment and education. Here contact with the criminal justice system is seen as an opportunity to apply the incentive of being spared a criminal record but to address drug use and co-morbid mental health issues (51). "Medicalizing" violence as a result of substance abuse is a major problem in South Africa and leads to over-utilization of acute psychiatric beds. A similar diversion programme in South Africa will help alleviate the overburdened mental health care and criminal justice systems.

The absence of a collaboration between law enforcement and mental health systems is seen as a factor in the criminalization of persons with mental illness (52). This has led to the development of crisis intervention teams that were started in 1988 by the

Memphis Police department. This program was developed to provide intensive training in mental illness and the local system of care to police officers who are then available to respond to mental health disturbance calls. The programme was intended to increase officer's skills in de-escalation of crises among persons with mental illness, improve the safety of officers and consumers and decrease inappropriate arrests of persons with mental illness. Vermette, Pinals & Appelbaum (52) studied police dispatch logs for 2 years before and 4 years after the implementation of a crisis intervention team programme. They determined the monthly average rates of mental health disturbance calls compared with the overall rate of calls to the police, disposition of mental disturbance calls by time and training, and the effects of techniques on voluntariness of disposition. They found that since the implementation of the programme there was an increase in the number and proportion of calls involving possible mental illness, an increased rate of transport by crisis intervention teams trained officers of people experiencing a mental illness crisis to emergency facilities, and an increase of transport on a voluntary basis. There were no significant changes in the rate of arrest. This study demonstrated that crisis intervention teams can help in assisting persons with mental illness to gain access to the treatment system.

Watson & Angell (53) found that less experienced officers are more likely to arrest individuals than experienced officers. Younger and less trained officers tend to perceive more danger whereas officers from more community policing orientations

and more contact with people with mental illness have more positive perceptions. A common theme in many surveys is that police officers do not feel qualified or adequately trained to handle calls involving persons with mental illness. Many police departments across the world are trying to improve their response to persons with mental illness. Some are supplementing existing training with a few additional hours on mental health issues, others are implementing one of three types of specialized responses: 1) Police based police response, which involves specially trained police officers; 2) Police based mental health response, which involves mental health clinicians working as civilian employees of the police department and 3) Mental health based mental health response, which involves partnerships with mobile mental health teams that are part of a community mental health centre.

The crisis intervention team model involves specially trained officers who provide first line response to calls involving a person with mental illness and who act as liaisons to the mental health system.

A more detailed review of the above models of mobile crisis teams reveals the following:

1) The Memphis Mobile Crisis Team Model: Examples of these teams use sworn police officers who have special mental health training to provide crisis intervention services and to act as liaisons to the mental health system. These persons may deal

with the mental health emergency situations on site or act as consultants to the officers at the scene. This places a heavy reliance on psychiatric emergency services who have agreed to a no refusal policy for persons brought to them by the police. This also minimizes the participation of mental health professionals in the field. The Memphis model as mentioned earlier is an example of the police based police response model

2) Another strategy used, is that police departments use mental health consultants who are not police officers. These consultants provide on site and telephone consultations to officers in the field. That is the police based mental health response. This method is employed at the Birmingham Police department in Birmingham Alabama. Here community service officers assist the police in mental health emergencies by providing crisis intervention and some follow up assistance. These officers are civilian police employees with professional training in social work or related fields.

3) Strategies who use psychiatric emergency teams of mental health professionals who are part of the local community mental health service system but have developed a special arrangement with the police department to respond to special needs at the site of the incident.

4) The mental health based mental health response: This model uses teams composed of both specially trained police officers and mental health professionals from the local community mental health department. Here, if the team transports the individual to the hospital, the mental health professional will have more relevant clinical information to give the receiving professional which may allow appropriate and effective treatment to be initiated earlier.

5) Another strategy often used in conjunction with a specialized response programmes is the use of a crisis "drop off centre" where police officers can transfer mentally ill persons in crisis to mental health staff, thus reducing the officers "down time".

6) The use of the emergency department as a resource for the police in crisis situations for persons with mental illness is also an example of a strategy employed by most police departments who do not have a specialized response team. There are however substantial barriers to the use of emergency services as a point of referral for the police to the mental health system. Long queues and periods spent in the emergency department and unmet criteria for involuntary treatment are to mention just a few. The above mentioned system is used at Chris Hani Baragwanath hospital. The emergency department is used as a drop off area where any suspected mentally ill patient is dropped off. Here, the patients' disposition is left up to the hospital staff to arrange appropriate care and disposition. (34).

In their article Steadman, et al (34) compared the outcomes of major models of police responses to mental health emergencies. The study compared three models of police responses to incidents involving people thought to have mental illness to determine how often specialized professionals responded, and how often they were able to resolve cases without arrest. Large differences were found across the sites in the proportion of calls that resulted in a specialized response. One of the reasons for the differences in response was the availability of a crisis drop off centre for persons with mental illness which had a no refusal policy for police cases. All three programmes had relatively low arrest rates when a specialized response was made. Their data strongly suggested that collaborations between the criminal justice system, the mental health system, and the advocacy community plus essential services reduced the inappropriate use of United States jails to house persons with acute symptoms of mental illness.

In their study Borum, Deane, Steadman & Morrissey (54) sampled police officers from 3 different law enforcement agencies, each of which had different systems of response to people with mentally ill crises. The 3 different agencies each conformed to were one of the following: 1) Police based specialized police response; 2) Police based specialized mental health response and 3) Mental health based specialized mental health response. 452 police officers from the 3 different agencies were sampled. They found that police encounters with mentally ill individuals in crisis were quite common. Approximately half of the officers perceived that people with mental

illness in crisis posed a moderate or big problem for their department. The officers from the Police based specialized police response agency felt the most prepared to handle calls involving mentally ill people in crisis, thus suggesting that specialized training in managing these types of calls can improve officers comfort and confidence in responding to these types of calls. The officers from the Police based specialized police response rated the mental health system as being quite helpful in handling their referrals. This is not surprising as the crisis intervention teams have a very strong bond and relationship with the police and emergency psychiatric services. The authors also enquired as to how effective the officers thought their programmes were in accomplishing certain objectives, namely: 1) Meeting the needs of people with mental illness in crisis; 2) Keeping people with mental illness out of jail; 3) Minimizing the amount of time officers spend on these types of calls and 4) Maintaining community safety. Again the officers from the crisis intervention team – the police based specialized police response had the highest ratings across all the objectives. The other 2 agencies rated less moderately effective on the dimension of minimizing officer time on these crisis calls. Having a psychiatric drop off centre would appear to minimize officer down time and indirectly may affect other positive outcomes. Police departments who had access to a drop off centre were nearly twice as likely to perceive their response to these calls as being effective as those who did not have access to such a resource. Programmes relying primarily or exclusively on outside assistance from the mental health system may be frustrated by lengthy

response times in a context where calls for assistance are typically answered immediately.

In their study Deane, Steadman, Borum, Veysey & Morrissey (55) conducted a survey of 194 United States cities with populations of 100 000 or more in 1996 to identify strategies they used to obtain input from the mental health system about dealing with mentally ill persons. 55% of the departments contacted did not have any specialized response team or plan to handle incidents involving mentally ill persons or any collaboration with emergency mental health services. Of the departments who utilized some sort of response system the mental health based specialized mental health response system was most often used (30%). 68% utilized crisis drop off centres.

Several elements enhance police response. These are as follows: Training, partnerships with mental health resources in the community, and a redefined approach to responding to mental health calls that includes changes in police officers roles and organizational priorities. This mental health based mental health response model has been shown to: 1) Reduce citizen and officer injuries; 2) Reduce arrests and 3) Increase transport and referrals to mental health services (55).

In fact, as gatekeepers to both the mental health and criminal justice systems, the police, in response to a person with mental illness, play a pivotal role in determining

the dynamics of the interaction. The extent to which the person cooperates, the resulting outcome, and perhaps the persons willingness to cooperate with both systems depends on the quality of the interaction between the mentally ill individual and the police.

2.6 Training of stakeholders

In Massachusetts in the United States, law enforcement professionals provide up to one third of all emergency mental health referrals, yet in general their training in mental illness is limited. Recognizing a need, police officers turned to mental health professionals to provide training in mental health (52).

In their study Vermette, et al (52) found that over 90% of respondents reported that the topic of mental illness was either fairly or very important to their work. Police officers with more experience rated the importance of learning about mental illness significantly higher than officers with less experience. This study suggested that when time is limited for training, officers would choose the topics of dangerousness, decreasing suicide risk, mental health law and ones potential liability for bad outcomes, as important topics of interest. Effective communication with persons with mental illness, drug and alcohol abuse, and stress management scored lower down on their list of preferred topics. Although attitudes of police officers are often more difficult to change, providing topics aimed at increasing knowledge may be a first step.

Stigma is understood as a relationship between characteristics of a person and socially constructed negative stereotypes. Psychiatric discrimination as a term directs attention to the heart of the problem – actions that lead to unfavourable outcomes

for minority groups. In their paper Pinfold, Huxley, Thornicroft, Farmer, Toulmin & Graham (56) evaluated the impact of a programme intervention on reducing negative stereotypes and discriminatory actions. They assessed the effectiveness of an educational intervention on 1) Raising participant awareness; 2) Increasing level of knowledge; 3) Changing views and 4) Affecting behaviour.

One stereotype associated with mental health problems is the link between mental illness and violent behaviour and that "people with mental health problems are a burden to the police" (56). As members of the public, police officers are often encouraged to believe the negative beliefs the media portrays about mental illness and violence and that mentally ill people pose a risk of violence towards the community at large. Police officers are an important target group for a mental health educational intervention. The police need to know about mental health in order to deal with their own emotional issues in a career involving high stress levels. They also need to learn to engage effectively with community members who have mental illness. Pinfold, et al (56) found that programme goals relating to raising the officer's awareness of issues relating to mental health were more successful than goals to influence police officers reported behavioural intentions. They also found that targeting a group in the work place provides the opportunity to challenge negative stereotypes while addressing specific work based training needs, thus creating a more favourable learning environment for addressing attitudes and behaviours.

In dealing with the corollary of the above (53), persons with mental illness may experience interactions with police officers in a variety of ways. The manner in which officers approach these situations may also determine whether the person cooperates or whether a crisis escalates to violence or is resolved without force or injury. Situational and officer characteristics play a role in determining police officers' response to persons with mental illness. Studies suggest that police are more likely to arrest individuals with mental illness when there is evidence of a crime, when the individual has a criminal history, when they feel that the individual would be inadmissible to a hospital, when public encounters exceed the communities tolerance for defiant behaviour, and when it is likely that the person will continue to cause a problem.

It is thus clear that police training is inadequate to prepare police officers to identify and deal with persons with mental illness (34). Police officers often want to know how to recognize mental illness, how to deal with psychotic and violent behaviour and what to do with someone who is trying to commit suicide. Teplin, et al (19) showed that police officers wanted to know what community resources were available to them and how to gain access to them.

3.0 DEFINING THE PROBLEM AND NEED FOR THIS STUDY

The role of the SAPS and the collaboration between mental health care practitioners and the SAPS, with regard to apprehending and disposition of such patients, although clear in the act and its regulations is not implemented in our current settings. Actual implementation, disposition and outcome of these patients have not been formalized with the various stakeholders and as a result have led to confusing roles between the two departments.

Thus, with regard to the management of MHCU's, the roles of SAPS and the emergency medical rescue services have been unclear, and their involvement at this stage is often quite unhelpful. The implementation of the act with regard to the care of MHCU's has been difficult in our setting due to practical difficulties and lack of preparedness at service levels (57).

As can be seen many countries have devised special crisis response sites where police can drop off individuals and return to their regular patrol duties (27). There is a need to develop a model for South Africa that bridges the gap between the SAPS and mental health services and the very different areas of expertise of each should be recognized and not confused. Education seminars aimed at improving knowledge of mental illness amongst SAPS officials needs to be instituted (58). Regular training in their roles in respect of MHCU's and the requirements of the MHCA should be

provided. This is the responsibility of all MHCP's including the district and provincial offices. As the Act is still in its infancy, there is very little published data on this issue and hence the opportunity and need for this study.

The purpose of this study is to highlight the need for a collaborative role between the SAPS and MHCPs in the apprehension, disposition and care of MHCU's and to define the outcome of MHCU's referred by the police to CHBH.

4.0 HYPOTHESIS

1. All stakeholders are fully compliant with all components of the procedure with regard to completion of Form 22, as set out in the new MHCA.

2. There are differences between the group of patients that are admitted (Medical or psychiatric admissions) to the group of patients that are discharged without admission.

5.0 OBJECTIVES

1. To describe the demographics and clinical characteristics of all MHCU's referred by members of SAPS to CHBH.

2. To describe the level of compliance of all stakeholders (SAPS, MHCP, HHE) in completing the MHCA Form 22.

3. To describe the outcomes of the MHCU's referred by members of SAPS to CHBH.

4. To compare the characteristics of the group of MHCU's that were admitted, to the group that were discharged without admission.

6.0 SUBJECTS AND METHODS

At CHBH members of SAPS hand over all apprehended, suspected mentally ill users, to the medical officer at the Emergency Department after having completed MHCA Form 22. The MHCUs are assessed by the medical officer, who then complete the relevant section of Form 22 and then refer the user to the medical admissions (Ward 20). The head of CHBH designates the emergency department medical staff to complete the required section in the MHCA form 22.

In ward 20, all such MHCUs are first assessed medically and then either admitted to a medial ward for medical management or referred for a psychiatric assessment. The MHCUs requiring psychiatric assessment are fully assessed by the psychiatric registrar and a decision taken either to admit the user to a psychiatric ward or discharge the patient from ward 20. A copy of the all the psychiatric notes are placed in the patients "Psychiatric" file. This file and copies of the MHCA Form 22 are stored in the Psychiatry Department's filing room.

6.1 Subjects

6.1.1 Inclusion criteria

All MHCUs referred by the SAPS were included if:

- MHCA form 22 was located in the patients psychiatric file,
- They were ≥ 18 years of age and
- They were referred during the study period 1st July 2007 to 31st December 2007.

6.1.2 Exclusion criteria:

A user was excluded from the study if:

- The patient was < 18 years of age and/or
- No MHCA form 22 was found in the patients Psych file.

6.2 Method

6.2.1 Study design

The study was a retrospective record review of patients referred by SAPS to the Emergency Department at CHBH using MHCA Form 22. All MHCA Form 22 that have been completed during the period July 2007 to December 2007 were obtained from the psychiatric files' records kept at the Psychiatry Departments filing room.

CHBH is a major urban tertiary hospital in Soweto Johannesburg, Gauteng Province. It serves a population of approximately three million people and has 2800 beds of which 155 are for acute adult psychiatric patients. The emergency department provides 24 hour emergency services, assesses briefly all suspected mentally ill patients and refers them to the medical admissions ward (Ward 20) where they are assessed by the psychiatric registrar on call. The medical admissions ward is covered 24 hrs by the psychiatric registrar on call. The Emergency Department is arguably the busiest Emergency Department in South Africa, and ward 20 admissions ward the busiest unit assessing mentally ill patients. CHBH is thus well suited for this study as it serves a great proportion of the population of the mentally ill in the area. The study is thus well placed to assess the disposition of mentally ill patients in this setting and to assess the various factors relating to a psychiatric admission.

6.3 Procedures

The following information was obtained from the MHCA form 22 and entered onto a data capturing sheet by the investigator: (Appendix 11.1)

6.3.1 Compliance of SAPS in completing the MHCA Form 22

- Whether Rank, initial and surname of SAPS member was specified,
- Whether Date and time of form 22 completion was specified,
- Whether Reasons for apprehending the MHCU were specified, and
- Whether the MHCU's next of kin' contact details were specified.

6.3.2 Compliance of medical practitioners in completing the MHCA Form 22

- Whether details of the MHCU's physical condition at the time of hand over to the designated person was attained.

6.3.3 Overall compliance of completing MHCA Form 22

- MHCA Form 22 was assessed as adequately completed and therefore compliant with MHCA requirements if all details described in 4.3.1 and 4.3.2 above, were specified.

6.3.4 From the MHCUs "Psychiatric" file, the following demographics and clinical characteristics were obtained by the investigator:

- Age,
- Sex,
- Highest level of education (HLOE),
- Employment status,
- Marital status,
- History of substance abuse,
- Forensic history,
- Past history of psychiatric illness,
- Family history of psychiatric illness, and
- Presenting diagnosis.

6.3.5 The MHCU's final outcome was obtained from the MHCUs psychiatric records namely

- Whether the MHCU was discharged from the medical admissions ward (Ward 20),
- Whether the MHCU was admitted to a psychiatric ward, and
- Whether the MHCU was admitted to a medical ward.

Each "Psychiatric" files record was assigned a unique identifying case number for filing purposes. Some participants had more than one visit during the study period and each such visit was considered a separate case.

The study was submitted to the University of the Witwatersrand's Human Research Ethics Committee (HREC) and approval was obtained. All users' details remained anonymous and confidential information was not recorded on the data sheet.

7.0 RESULTS

During the six-month study period, 718 MHCUs were referred by members of SAPS to CHBH Emergency Department. The forms and psychiatric hospital notes of only 708 referrals could be traced and these users were included in this study.

7.1 Demographics and clinical characteristics of the study population (all MHCUs referred by members of SAPS)

7.1.1 Demographics of the study population

Of the 708 referrals, 81.8% (n=579) were males and 18.2% (n=129) were females (Figure 7.1).

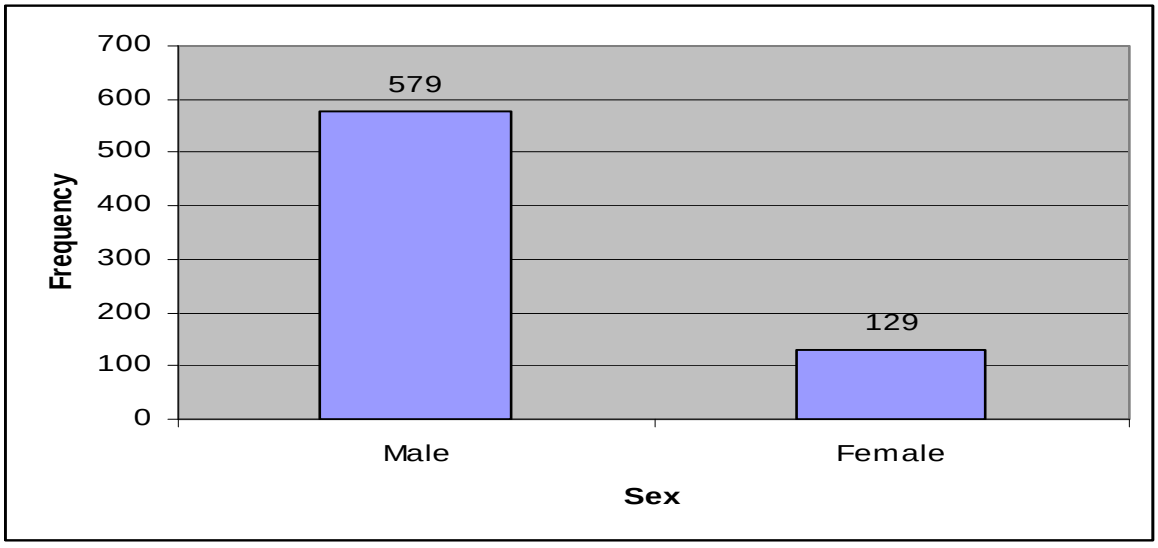

Figure 7.1: Gender distribution of the study population.

21.89% (n=155) of the MHCUs were in the age group 18 – 25 yrs, 34.46% (n=244) in the age group 26 - 35 yrs, 30.93% (n=219) in the age group 36 - 50 yrs; and 10.45% (n=74) in the age group 51 - 60 yrs. The ages of 16 (2.26%) MHCUs were unknown (Figure 7.2).

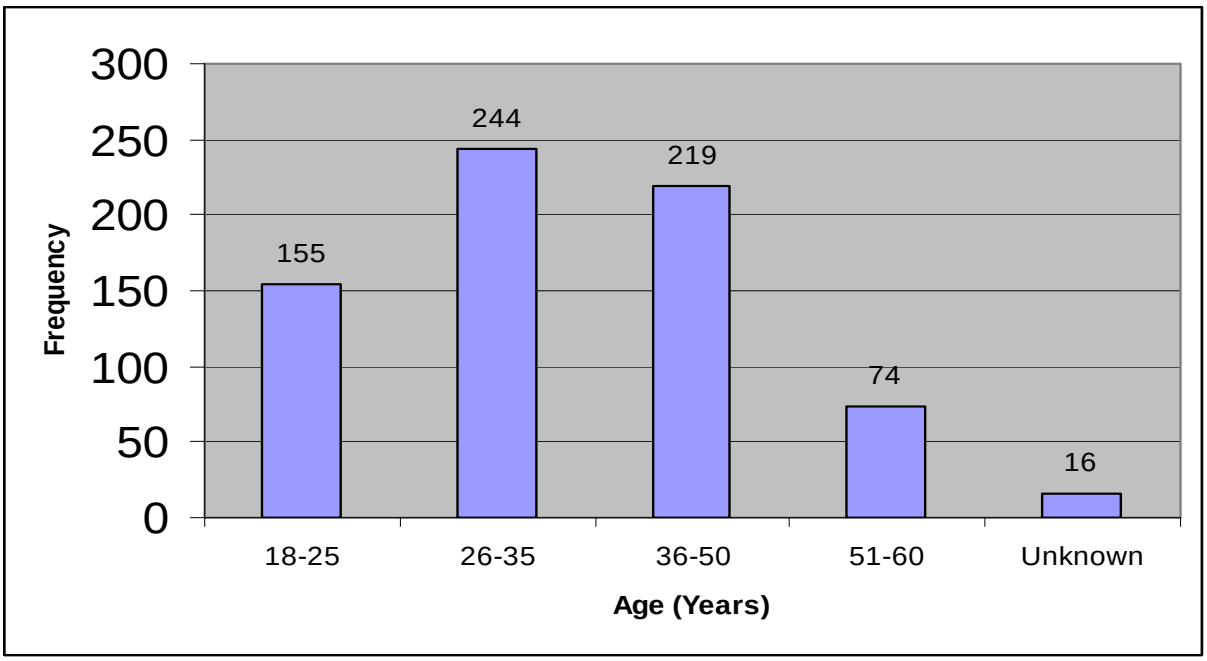

Figure 7.2: Age group distribution of the study population.

The majority (55.65%) of MHCUs had achieved a level of education that was below grade ten, 11.3% (n=80) achieved grade 11 and 12, while only 1% (n=7) achieved a tertiary level of education (Figure 7.3).

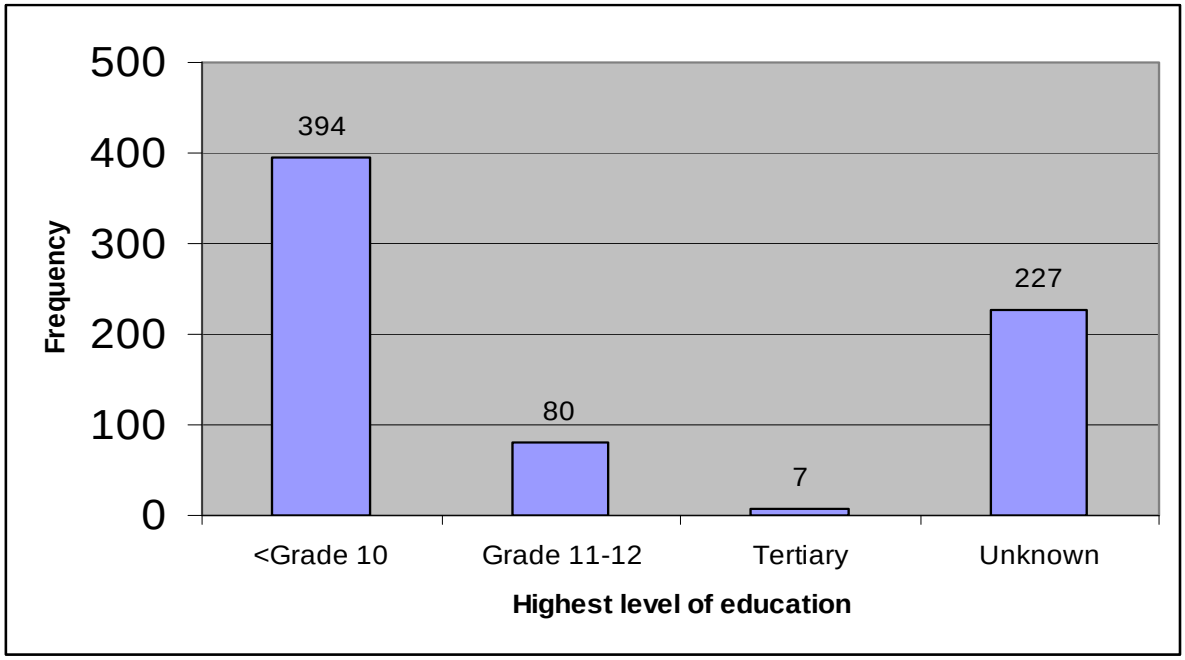

Figure 7.3: Highest level of education achieved by the study population.

7.49% (n=53) of MHCUs were employed (Figure 7.4)

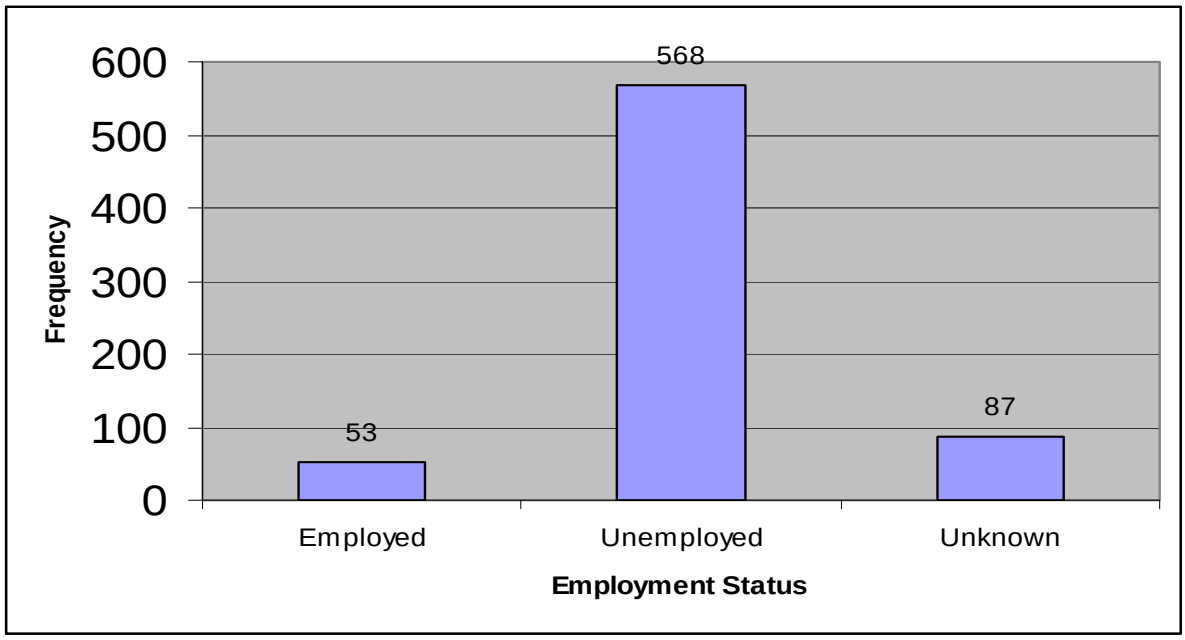

Figure 7.4: Employment status of the study population.

In terms of marital status, 7.34% (n=52) of MHCUs were married, 84.32% (n=597) were never married, 0,56% (n=4) were divorced, 0.85% (n=6) were separated and 1.27% (n=9) were widowed (Figure 7.5).

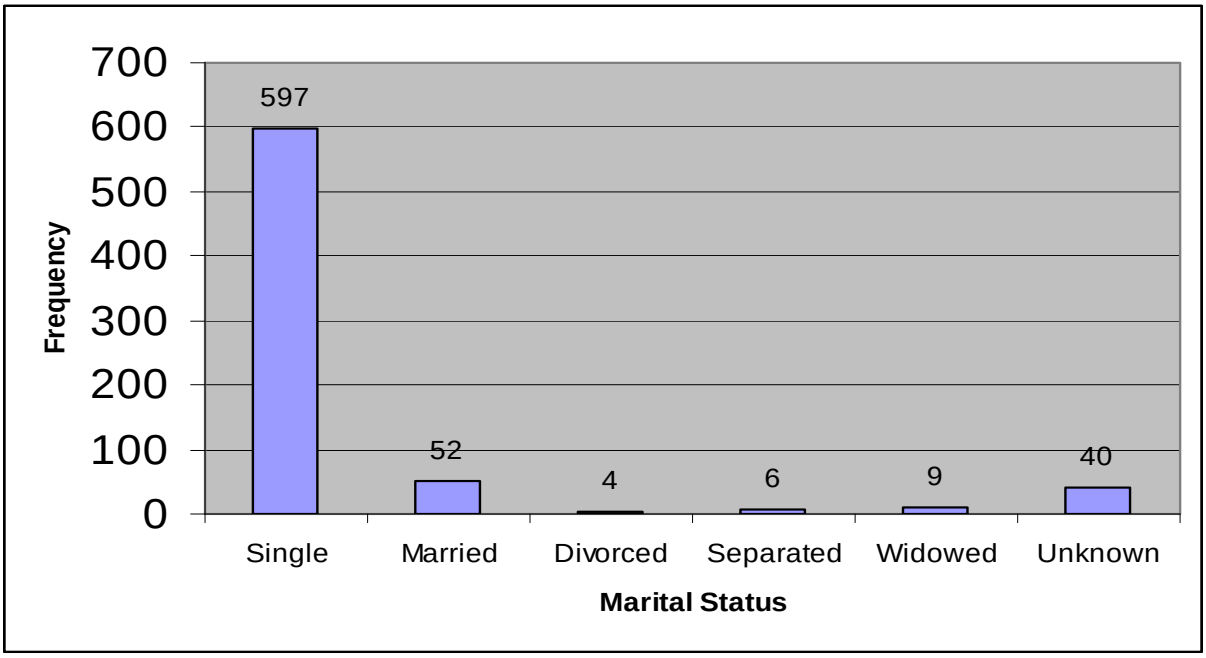

Figure 7.5: Marital status of the study population.

7.1.2 Clinical Characteristics of the study population

53.39% (n=378) of MHCUs had a history of abusing substances prior to admission while 77.97% (n=552) had a history of a past psychiatric illness (Table 7.1). Only 2.68% (n=19) had a family history of psychiatric illness and 6.6% (n=47) had a positive forensic history.

Table 7.1: Frequency distribution of clinical characteristics of the study population.

Clinical Characteristics	Frequency	Percentage
Substance abuse History		
Positive	378	53.39
Negative	125	17.66
Unknown	205	28.95
Forensic History		
Positive	47	6.64
Negative	53	7.49
Unknown	608	85.88
Past Psychiatric History		
Positive	552	77.97
Negative	122	17.23
Unknown	34	4.80
Family Psychiatric History		
Positive	19	2.68
Negative	29	4.10
Unknown	660	93.22

Following an assessment in ward 20; 28.67% (n=203) of MHCUs were diagnosed with schizophrenia; 24.15% (n=171) with bipolar mood disorder (BMD); 29.80% (n=211) with a substance induced mood/psychotic disorder (SIMPD); 6.92% (n=49) received a diagnosis of a psychotic/mood disorder due to a general medical condition (MP2GMC) and 2.12% (n=15) received a diagnosis of delirium. Only one user was diagnosed as having a personality disorder (PD). The diagnosis was unknown in 8.19% (n=58) of MHCUs (Figure 7.6).

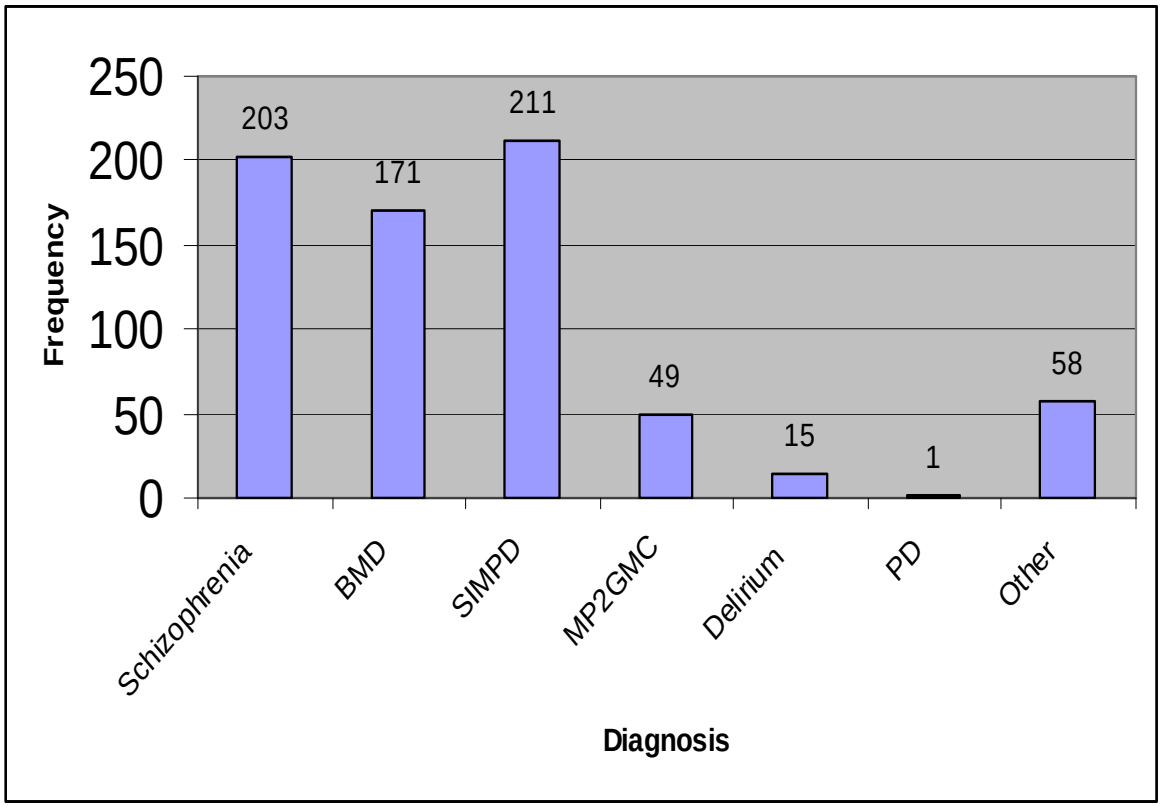

Figure 7.6: Distribution of diagnoses in the total study population.

7.2 Compliance of all stakeholders (SAPS, MHCP, HHE) in completing the MHCA Form 22 of the study population

Of the 708 MHCA forms completed, 87.43% (n=619) included the SAPS officials' identifying details namely: Rank, initials and surname of the SAPS member. The date and time was recorded on 98.59% (n=698) of forms. Reasons for suspecting mental illness and apprehending the MHCUs were recorded on 86.16% (n=610) of forms. The details of the MHCUs' next of kin were recorded on 96.19% (n=681) of forms (Table 7.2).

Details regarding the MHCUs' physical condition on arrival at the emergency department was recorded by the medical staff on only 9.89% (n=70) of forms. Overall, only 5.37% (n=38) of the MHCA Forms 22 were fully completed by all stakeholders (SAPS, MHCP, HHE [or designated person]) concerned.

Table 7.2: Frequency distribution of completed sections of the MHCA Form 22 of the study population.

SECTIONS OF MHCA FORM 22	Number of forms completed (n=708)	Percentage of forms completed
Rank, initial and surname of SAPS member	619	87.43
Date and time	698	98.59
Reasons for apprehending the MHCU	610	86.16
MHCU's next of kin – all details	681	96.19
Name only	638	90.11
Contact details only	658	92.94
MHCU's physical condition by medical staff	70	9.89
All sections completed	38	5.37

7.3 Outcomes of the study population

Of the MHCUs referred by the SAPS to CHBH, 45.06% (n=319) were discharged from the medical admissions ward 20. 38.42% (n=272) of MHCUs were admitted to the adult acute psychiatric wards and 14.41% (n=102) were admitted to a medical ward by the specialist physicians for further medical management. The outcome of 15 MHCUs was unknown (Table 7.3).

Table 7.3: Frequency distribution of outcomes of the study population.

OUTCOMES	Number (n=708)	Percentage
Discharged from Ward 20	319	45.06
Admitted to Psychiatric Ward	272	38.42
Admitted to Medical Ward	102	14.41
Unknown	15	2.12

7.4 Comparison of the characteristics of the study population in relation to outcomes

27.27% (n=87) of the MHCUs in the age group 18-25 years were discharged from ward 20 compared to 19.85% (n=54) who were admitted to the psychiatric ward and 8.82% (n=9) to the medical ward. However, 7.84% (n=25) of users, in the age group 51-60 years, were discharged from ward 20 compared to 12.50% (n=34) who were admitted to the psychiatric ward and 11.76% (n=12) to a medical ward (χ^2=25.90, p=0.011) (Table 7.4).

62.07% of the MHCUs discharged from ward 20 were below the ages of 35 years. Further, 49% of the users admitted to the medical wards were above the ages of 35 years.

Males constituted 87.77% (n=280) of the MHCUs that were discharged from ward 20, 76.84% (n=209) of those admitted to the psychiatric ward and 75.49% (n=77) of those admitted to the medical wards were males. By comparison, females constituted 12.23% (n=39) of users discharged from ward 20, 23.16% (n=63) of those admitted to the psychiatric wards and 24.51% (n=25) of those admitted to the medical wards were females (χ^2=15.09, p=0.002) (Table 7.4).

64.89% (n=207) of the MHCUs discharged from ward 20, 52.94% (n=144) of users admitted to the psychiatric wards and 38.24% (n=39) of those admitted to the medical wards had a level of education below grade ten. By comparison, 1.25% (n=4) of users discharged from ward 20, 0.37% (n=1) of users admitted to the psychiatric ward and 1.96% (n=2) of users admitted to the medical ward had a tertiary level of education (χ^2=36.48, p=0.000) (Table 7.4).

9.06% (n=28) of MHCUs discharged from ward 20; 4.63% (n=12) of users admitted to the psychiatric ward and 9.00% (n=9) of those admitted to the medical ward were employed. By comparison 83.50% (n=258) of the users discharged from ward 20, 81.85% (n=212) of users admitted to the psychiatric wards and 70% (n=70) admitted to the medical wards were unemployed (χ^2=19.70, p=0.003) (Table 7.4).

Table 7.4. Comparisons of demographic characteristics in relation to outcomes.

Characteristics	MHCU discharged from ward 20 N (%)	MHCU admitted to the psych ward N (%)	MHCU admitted to the medical ward. N (%)	Statistical Analysis
Age Group (yrs)				
18-25yrs	87(27.27)	54(19.85)	9(8.82)	χ^2=25.9, p=0.011
26-35yrs	111(34.80)	90(33.09)	39(38.24)	
36-50yrs	90(28.21)	89(32.72)	38(37.25)	
51-60yrs	25(7.84)	34(12.50)	12(11.76)	
Gender				
Male	280(87.77)	209(76.84)	77(75.49)	χ^2=5.09, p=0.002
Female	39(12.23)	63(23.16)	25(24.51)	
HLOE				
<Grade 10	207(64.89)	144(52.94)	39(38.24)	χ^2=36.48, p=0.000
Grade 11-12	34(10.66)	28(10.29)	12(11.76)	
Tertiary	4(1.25)	1(0.37)	2(1.96)	
Employment				
Employed	28(9.06)	12(4.63)	9(9.00)	χ^2=19.70, p=0.003
Unemployed	258(83.50)	212(81.85)	70(70.00)	

61.76% (n=197) of MHCUs discharged from ward 20; 53.68% (n=146) of users admitted to the psychiatric wards and 26.47% (n=27) of users admitted to the medical wards had a positive substance abuse history. By comparison, 15.05% (n=48) of users discharged from ward 20, 18.01% (n=49) of users admitted to the psychiatric ward and 25.49% (n=26) of users admitted to the medical wards had not abused substances previously (χ^2=40.95, p=0.000) (Table 7.5).

6.58% (n=21) of MHCUs discharged from ward 20; 6.62% (n=18) of users admitted to the psychiatric wards and 3.92% (n=4) of users admitted to the medical wards had a positive forensic history. By comparison 9.72% (n=31) of users discharged from ward 20, 6.25% (n=17) of users admitted to the psychiatric wards and 4.90% (n=5) of users admitted to the medical wards lacked a forensic history (χ^2=15.74, p=0.015) (Table 7.5).

80.88% (n=258) of MHCUs discharged from ward 20; 83.46% (n=227) of users who were admitted to the psychiatric wards and 55.88% (n=57) of users admitted to the medical wards had a past psychiatric history. By comparison 15.05% (n=48) of MHCUs discharged from ward 20, 14.34% (n=39) of users admitted to the psychiatric wards and 30.39% (n=31) of users admitted to the medical wards did not have a past psychiatric history (χ^2=41.61, p=0.000) (Table 7.5).

Table 7.5: Comparisons of clinical characteristics in relation to outcomes.

Characteristics	MHCU discharged from ward 20 N (%)	MHCU admitted to the psych ward N (%)	MHCU admitted to the medical ward. N (%)	Statistical Analysis
Substance history				
Positive	197(61.76)	146(53.68)	27(26.47)	χ^2=40.95,
Negative	48(15.05)	49(18.01)	26(25.49)	P=0.000
Forensic history				
Positive	21(6.58)	18(6.62)	4(3.92)	χ^2=15.74,
Negative	31(9.72)	17(6.25)	5(4.90)	P=0.015
Past Psych history				
Positive	258(80.88)	227(83.46)	57(55.88)	χ^2=41.61,
Negative	48(15.05)	39(14.340	31(30.39)	P=0.000
Family Psych History				
Positive	5(1.57)	10(3.68)	4(3.92)	χ^2=6.19,
Negative	13(4.08)	14(5.15)	2(1.96)	P=0.401
Marital Status				
Single	276(86.52)	231(84.93)	76(74.51)	
Married	23(7.21)	19(6.99)	10(9.80)	χ^2=19.50,
Divorced	2(0.63)	2(0.74)	0(0.00)	p=0.192
Separated	2(0.63)	2(0.74)	1(0.98)	
Widowed	4(1.25)	5(1.84)	1(0.98)	

No statistically significant association was found between outcomes and family psychiatric history (χ^2=6.19, p=0.401) or between outcomes and marital status (χ^2=19.50, p=0.192) (Table 7.5).

7.5 Comparison of completed sections of MHCA form 22 in relation to outcomes

There was no statistically significant association between the MHCU's outcome and a fully completed MHCA form 22 (χ^2=5.600, p=0.133) (Table 7.6). There was also no association between outcome and the following sections being recorded on the MHCA form 22 namely: SAPS members details (χ^2=1.0827, p=0.781); reasons for suspecting mental illness and apprehending the MHCU by the SAPS member (χ^2=7.4459, p=0.059); next of kin details (χ^2=1.1024, p=0.777); and physical condition recorded by medical staff (χ^2=3.7552, p=0.289).

Table 7.6 Sections of the MHCA form 22 that were fully completed in relation to outcomes.

Section of MHCA form 22	MHCU discharged from ward 20 N (%)	MHCU admitted to the psych ward N (%)	MHCU admitted to the med ward. N (%)	Statistical Analysis
Fully completed MHCA form 22	14 (4.39)	21 (7.72)	3(2.94)	χ^2 = 5.60, p = 0.191
Physical condition stated on MHCA form 22	28 (8.78)	33(12.13)	9(8.82)	χ^2= 3.7552, P = 0.289
Reasons stated for apprehension	271(84.95)	242(88.97)	82(80.39)	χ^2 = 7.44, p = 0.059
SAPS members details stated	278(87.15)	240(88.24)	87(85.29)	χ^2 = 1.08, p = 0.781
Next of Kin details stated	309(96.87)	261(95.96)	97(95.10)	χ^2 = 1.10, p = 0.777

7.6 Multinomial logistic regression analysis

There was a statistically significant relationship between age and outcome ($p > \chi^2 = 0.0019$) (Table 7.7). The chances of being admitted to either ward (Psychiatric or Medical ward) increases with increasing age (The relative risk ratio (RRR) increases for admission to both wards compared to the baseline comparison group of discharge from ward 20).

Table 7.7 Multinomial Logistic regression of demographic characteristic versus outcomes (Base outcome= discharge from ward 20).

Characteristic	RRR	Srd.Err	Z	P>Z	95%CI	95%CI	Regressions
Age							
Psych Adm							
26-35yrs	1.306306	0.292486	1.19	0.233	0.842282	2.025966	No of obs= 678 LR χ^2 = 20.96 Prob>χ^2=0.0019 Pseudo R=0.0154
36-50yrs	1.59321	0.364562	2.04	0.042	1.017416	2.494866	
51-60yrs	2.191111	0.690893	2.49	0.013	1.181045	4.065017	
Med Adm							
26-35yrs	3.396396	1.346856	3.08	0.002	1.561244	7.388667	
36-50yrs	4.081481	1.632757	3.52	0.000	1.863386	8.939902	
51-60yrs	4.64	2.301078	3.09	0.002	1.75545	12.26444	
Gender							
Psych Adm							No of obs=693 LR χ^2=15.17 Prob > χ^2=0.0005 Pseudo R^2=0.0109
Female	2.16	0.483290	3.46	0.001	1.397013	3.352547	
Med Adm							
Female	2.33	0.668308	2.95	0.003	1.328922	4.088707	
Employment							
Psych Adm							No of obs=607 LR χ^2=5.49 Prob>χ^2=0.0644 Pseudo R2=0.0046
Employed	0.509	0.1754438	-1.96	0.050	0.259405	1.000553	
Med Adm							
Employed	1.225	0.476549	0.52	0.601	0.571770	2.626031	

Females are more than twice as likely to be admitted to either the psychiatric ward (RRR=2.16) (p=0.001) or the medical ward (RRR=2.33) (p=0.003).

Patients admitted to the psychiatric ward are about 50% less likely to be employed than the patients who are discharged (RRR=0.51) (p=0.050).

There was no statistically significant relationship between admission to either ward and level of education (p=0.590 and p=0.269 respectively) or marital status (p=0.968 and p=0.254 respectively).

Patients admitted to the medical ward are about 74% less likely (RRR = 0.258) to have a history of substance abuse; about 67% (RRR = 0.32) less likely to have a past psychiatric history compared to those patients who are not admitted (Table 7.8).

There were no differences between diagnoses of patients who were admitted to the psychiatric ward compared to those who were not admitted except for patients who received a diagnosis of Delirium who were 79% less likely to be admitted to the psychiatric ward.

Table 7.8 Multinomial Logistic regression of clinical characteristic versus outcomes (Base outcome= discharge from ward 20).

Characteristic	RRR	Srd.Err	Z	P>Z	95%CI	95%CI	Regressions
Subst Abuse							
Psych Adm							No of Obs=494 LR χ^2=17.73 Prob>χ^2=0.0001 Pseudo R^2=0.0188
Subst Abuse	0.741	0.170201	-1.30	0.192	0.472501	1.162439	
Med Adm							
Subst Abuse	0.258	0.082081	-4.26	0.000	0.138556	0.481519	
Past psych							
Psych Adm							No of obs=660 LR χ^2=19.87 Prob>χ^2=0.0000 Pseudo R^2=0.0152
Past Psych Hist	1.08	0.253394	0.34	0.734	0.684545	1.713023	
Med Adm							
Past Psych Hist	0.32	0.088457	-4.13	0.000	0.191159	0.554528	
Diagnosis							
Psych Adm							No of Obs=692 LR χ^2=111.79 Prob>χ^2=0.0000 Pseudo R^2=0.0802
Schizophrenia	1.402	0.5041892	0.94	0.347	0.6931686	2.837221	
SIMPD	0.737	0.2607077	-0.86	0.390	0.3691675	1.474787	
MP2GMC	0.624	0.2211908	-1.33	0.184	0.312155	1.25048	
Delirium	0.211	0.1348779	-2.43	0.015	0.0603507	0.738481	
BMD	0.475	0.4386057	-0.81	0.420	0.0777519	2.90186	
Med Adm							
Schizophrenia	0.201	0.0915629	-3.52	0.000	0.0823532	0.490866	
SIMPD	0.153	0.06604	-4.36	0.000	0.0662297	0.356794	
MP2GMC	0.209	0.084374	-3.88	0.000	0.0949055	0.461179	
Delirium	1.583	0.7094671	1.03	0.305	0.6579034	3.810505	
BMD	2.111	1.467469	1.07	0.282	0.5405386	8.245091	

Patients diagnosed with Schizophrenia, Substance induced mood/psychotic disorder and Mood/Psychotic disorder due to general medical condition were 80%, 84% and 79%, less likely to be admitted to the medical ward, respectively.

There was no statistically significant relationship between outcome (admission to either ward) and forensic history (p=0.311 and p=0.819 respectively.) and between outcome (admission to either ward) and family psychiatric history (p=0.355 and p=0.104 respectively) in the multinomial regression analysis.

After adjusting for gender, patients diagnosed with Delirium were 78% (RRR=0.217) less likely to be admitted to the psychiatric ward and patients diagnosed with Schizophrenia, Substance induced Mood/Psychotic disorder and Mood/Psychotic disorder due to general medical condition were 81%, 83% and 76% less likely to be admitted to the Medical ward (Table 7.9).

Table 7.9 Multinomial Logistic regression of diagnosis versus outcomes after adjusting for gender (Base outcome= discharge from ward 20).

Diagnosis	RRR	Srd.Err	Z	P>Z	95%CI	95%CI	Regressions
Psych Adm							No of obs=692 LR χ^2=118.60 Prob>χ^2=0.0000 Pseudo R^2=0.0851
Schizophrenia	1.315	0.4773119	0.76	0.449	0.6463781	2.67904	
SIMPD	0.816	0.2922211	-0.57	0.572	0.4052248	1.646886	
MP2GMC	0.717	0.2586175	-0.92	0.358	0.354318	1.454443	
Delirium	0.217	0.1392359	-2.38	0.017	0.0618667	0.762944	
BMD	0.399	0.3715636	-0.99	0.324	0.0644375	2.473996	
Female	1.831	0.4485918	2.47	0.014	1.132942	2.959736	
Med Adm							
Schizophrenia	0.190	0.0873526	-3.61	0.000	0.0774334	0.467921	
SIMPD	0.167	0.0727518	-4.11	0.000	0.0715888	0.392435	
MP2GMC	0.235	0.0968635	-3.51	0.000	0.1050436	0.527282	
Delirium	1.622	0.7312105	1.07	0.283	0.6708854	3.924637	
BMD	1.816	1.280243	0.85	0.397	0.4561495	7.230766	
Female	1.694	0.5686388	1.57	0.116	0.8778449	3.271083	

8.0 DISCUSSION

8.1 Police referral rate

This study found that approximately one out of every four referrals (26%) to CHBH were referred by the SAPS, a higher rate than most other published studies. Kneebone, et al (37) reported that over a 21 month period in South Australia, police referrals constituted 9.1% of all referrals from the community and 9.9% of total hospital admissions. Similarly, Bruffaerts, Sabbe & Demyttenaere (59) in their study on the epidemiological profile of patients consulting the psychiatric emergency team of a Belgian University Hospital, found that 8.8% of all patients were police referrals. However, Knott, Pleban, Taylor & Castle (60) in their study of 3701 patients presenting to the Victorian emergency departments in Australia, report that 17.6% were police referrals, which was significantly higher than that found in South Australia.

Possible reasons for the high figures in this study population could be socio-politically related. CHBH is the only referral institution in Soweto for acute psychiatric patients and serves a vast urban population. This population has a high unemployment rate (Estimated at 23%) and is largely socially disadvantaged, a legacy from the previous apartheid South Africa (61, 62, 63). Families of mentally ill patients often lack the means to transport them to the only facility in the area. Further, an inadequate

Emergency Medical Services (EMS) (Only 0.4 ambulances per 100 000 of the population) limits the availability of ambulances to transport such patients to the hospital (64). This is compounded by a reluctance of the EMS personnel to transport these patients by ambulance, as they are considered violent and aggressive. As a result, the SAPS are inappropriately utilised by the families of mentally ill individuals to transport them to the hospital and hence the higher police referral rate.

In America, however, it is reported that it is the police that are often reluctant to intervene where mental illness is concerned. They often under-identify rather than over-identify mental illness, and prefer not to transport individuals to the hospital because of the amount of time wasted in waiting for admission only to be told that the patient does not meet admission criteria (9).

8.2 Characteristics of patients referred by SAPS

8.2.1 Gender

More than half of the referrals by SAPS in this study sample were male. This is in keeping with the South Australian, American and Belgium studies (37, 39, 60). Way, et al (35) compared non police to police referred cases to the emergency room and reported that 72% of clients brought by the police were males as compared to 55% of those that were not brought in by the police. No specific reasons were given in these studies for this finding. However, dangerousness and threats to others do seem to be linked with gender. The probability, as suggested by Way, et al (35), of being brought by the police is greater if one is male and presents as a danger to others. This is further supported by Binder & McNiel (65) who, in their study on the relationship of gender to violent behaviour in acutely disturbed psychiatric patients, found that men engaged in significantly more physical attacks and fear-inducing behaviour than did women.

A possible reason for the large number of males being referred by SAPS in this study is the fact that they present with dangerous behaviour which is more likely to attract the attention of the police, either directly or by notification of community members. Further, males were more likely to have a history of substance abuse. Substance

abuse often presents with socially unacceptable behaviour and is known to increase the risk of violent behaviour (66).

8.2.2 Age

More than half of the MHCU's referred by the police in this study were under 35 years of age. This is similar to other studies: Way, et al (35) in New York reported a mean age of 34 years and Strauss, et al. (50) a mean age of 37.4 years. In fact Strauss, et al (50) found no difference in demographic data between those patients brought in by crisis intervention police officers and those from routine emergency psychiatric referrals. This would suggest that the mean age of patients referred by the police would be similar to the mean age of those patients not referred by the police.

Stein, Seedat, Herman, Moomal, Heeringa & Kessler (67) reported that South Africa has a particularly high lifetime prevalence of substance use disorders and that these disorders have an earlier age at onset (mean age 24yrs), possibly contributing to the above findings. The authors report this to be lower than in other countries and attribute this to being largely cut off from worldwide trends during the apartheid years.

8.2.3 Level of Education, Marital and Employment status

The majority of MHCUs in this study had only achieved a level of education that was below grade 10, while 1% had achieved a tertiary level of education. Kneebone, et al (37) found that only 10% of their study sample had post secondary education. The level of education found in this study sample may be due to multiple factors. The high incidence (77.97%) of a past history of psychiatric illness may suggest an early onset of mental illness. Serious mental illness may result in an earlier dropout from school thereby leaving the individual with a lower level of education and a lower level of occupational functioning. This may be further compounded by the socio-economic status of the individuals from the referral area and the inadequate educational facilities as a result of the previous apartheid system.

The majority of this study population were unemployed and single. It is surprising to note the low rate of marriage in this sample. Many South Africans, report being unmarried but are more likely to have a long term partner. This distinction was not accounted for in this study. The high payments required from households for formal marriage agreements in South Africa may also account for this fact. However, the ability to maintain a partnership may indicate less severe mental disorder or may be a protective effect due to the support received from the partner and extended family. Kessel, Catalano, Christy & Monahan (68) hypothesized that with a reduction in local labour markets and regional economies, the incidence of involuntary admissions

presented to psychiatric emergency services by police would increase. This observation would be explained by a reduction in community tolerance for persons perceived as threatening to others. This could certainly be seen as a possibility in this setting with only 7.49% of this study population being employed while 53.39% of the study population having a history of substance abuse.

The findings that the majority of patients referred by the SAPS had a low level of education, were single and unemployed is not necessarily unique to police referred cases but may merely reflect the profile of psychiatric admissions to CHBH. Behr, Christie, Soderlund & Lee (69) found that the personal characteristics of the "typical patient" admitted to CHBH were: male, single, between 20 and 30 years of age, poorly educated, unemployed and suffering from bipolar mood disorder or schizophrenia. One third of these had a history of substance abuse and one quarter had a history of violent behaviour prior to admission.

8.2.4 Previous Forensic history

Only 6.6% of patients referred by SAPS in this study reported a previous forensic history. This is contrary to other reported studies: Kneebone, et al (37) reported that 40% of police referrals had a forensic history. Here, assault and theft were the most common offences. Kisely, Xiao & Preston (70) reported prevalence of convictions of lifetime offences of between 21 and 23% in psychiatric patients. The majority of the

patients in this study reported their forensic history as unknown. This could be explained as follows: 1) Patients withhold this information due to the fear of stigmatization; 2) The presence of psychosis may have contributed to the unreliable history obtained at the time of admission; and 3) The information was not recorded in the patients' notes as it was not determined during interview at the time of admission. The latter reason is of great concern. Doctors at CHBH are admitting patients referred by the police services, yet fail to obtain information relating to their forensic history. This may result in the inappropriate placement of criminals (often antisocial and dangerous) into the mental health services posing problems especially with regard to safety of staff and other patients and may help determine where the patient is discharged to following admission.

Similarly there are a large number of mentally ill persons in the criminal justice system. This was reported by Penrose (71) as early as 1939 that there was an inverse relationship between prison and mental hospital populations. In South Africa access to treatment and rehabilitation for mentally ill patients in prison is limited.

However, it is a general belief among psychiatrists that people with major mental illness are no more likely to commit violent crimes than the general population (72). Deinstitutionalization, lack of adequate long term hospitalization and a poorly organized community clinic infrastructure may have resulted in mentally ill persons

being placed in the criminal justice system and criminals being cared for in the mental health system.

We know from this study that a large portion of mentally ill persons first come to the attention of the police. It is then the police's decision to either dispose of the patient in the criminal justice or mental health system. Lamb & Weinberger (73) describe that the police know that if they refer to the criminal justice system, the offender will be dealt with in a more systematic way, will be seen by a mental health professional, receive a psychiatric evaluation in prison and receive treatment.

In South Africa this is not the case. Prisons and police cells are not frequented by psychiatrists who routinely evaluate offenders. It is easier for the SAPS to drop the person off at the local emergency department and return to their duties. This may also be due to the fact that no other appropriate community alternatives are available.

8.3 Compliance by medical staff and SAPS in implementing the regulations as set out in the MHCA

The hypothesis of this study, that all stakeholders are fully compliant with all the procedural aspects with regard to completion of Form 22, as set out in the new Mental Health Care Act No 17 of 2002 is not true.

It is evident that the SAPS are more compliant with regards to completing the MHCA form 22 and the regulations of the Mental Health Care Act compared to the health care professionals in the Emergency Department of CHBH. This is interesting considering that formal training in the implementation of the mental health care act has not been extensively rolled out to police officers.

Contrary to our findings, Lynch, et al. (5) in their study assessing the level of knowledge of Section 136 of the Mental Health Care act 1983 in Yorkshire, United Kingdom, found that Accident and Emergency consultants had the highest level of working knowledge of the act. 10.9% of the police failed to recognize that a person has to appear to be suffering from a mental disorder to be placed under this act. They also found that only 10.3% of accident and emergency staff and 22.8% of police had received any formal training in carrying out the procedures of the Act.

Vermette, et al (52) surveyed Massachusetts police officers in order to determine topics of interest and preferred modalities of training for police officers in their work with persons with mental illness. 90% of respondents reported that the topic of mental illness was either fairly or very important to their work. Importantly, 70% of officers reported receiving post academy mental health training.

This is important in the South African context as this does not form part of Police officers training. Regardless of method, training is imperative for South African Police officers. The level of information needs to be presented to suit every level of Police officer. Mental health and Law enforcement professionals need to join forces to provide each other with the most effective means of managing mentally ill persons.

Training for police officers should include: 1) Becoming familiar with general classification of mental disorders, 2) Learning skills in how to deal with aggressive or violent patients, 3) Learning the criteria specified for involuntary hospitalization and, 4) Learning how to access resources other than hospitalization.

Implementing this type of training may be difficult in a South African context. Munetz, Morrison, Krake, Young & Woody (74) studied models, using centres of excellence to distribute their practices through out the state. Once communities decide to adopt the crisis intervention team programme, a 'train the trainer' model was used. The teams are invited to send a team representing law enforcement,

mental health and advocacy groups to a training course. This however requires all stakeholders to participate in the programme for it to be effectively instituted. It would also require substantial financial resources. This may not be possible in our setting and further research in this regard is necessary to identify the appropriate model to use in a South African context.

The physical condition of the MHCU at the time of handing over by the SAPS was only recorded in approximately 10% of all referrals. It is possible that the health care practitioners are either not examining the patients properly or not entering their findings in the MHCA from 22. This may be due to high patient loads at the emergency department of CHBH. The department attends to approximately 500 emergency room visits in 24 hours and is severely under-resourced (an average of only 4 medical officers on duty). Violent or aggressive patients are quickly restrained and routed to psychiatric services without a complete physical examination. Family members often do not accompany the patient to the emergency department and therefore are unable to provide the emergency room doctor with collateral information. Although psychiatric training forms part of the undergraduate medical training it has only recently been incorporated into the newly formed post graduate degree in emergency medicine and therefore emergency doctors lack the skill and competency to examine and assess acutely psychotic patients.

The completion of this part of the form is vital as it provides documented evidence on the physical status of the user if there are claims of physical abuse whilst in the care of the SAPS or the hospital. That the admitting doctor is not adequately assessing the patient to exclude physical causes of aggression and psychiatric symptomatology, may in part explain the high rate of medical admissions recorded in this study.

8.4 Characteristics of police referrals that were admitted into the hospital

Approximately one out of every two patients was discharged directly from the medical admissions ward 20 following an assessment by the MHCP.

Patients often settle once removed from the volatile situation and voluntarily accept oral medication. In view of the new MHCA (1), one needs to treat mentally ill patients in the least restrictive environment. Following assessment, patients often do not meet criteria for assisted or involuntary admission. Resource constraints and bed shortages may also play a crucial role. Considering that there are only 0.22 mental health staff per bed in Gauteng (75) and an overall 19.5 staff per 100 000 population in the public mental health services in South Africa (76), it is not surprising that doctors feel patients should be treated and managed in the community although resources there are extremely lacking.

Approximately 14% of patients brought in by the police required a medical admission. This is unacceptably high and the reasons need to be sought as to why these patients initially required a psychiatric evaluation prior to receiving the necessary medical management. This might be explained by the fact that the admitting Emergency Department Doctor failed to physically examine the referred patients, as evidenced by the fact that only 9.98% of MHCA form 22 had details of the MHCU's physical condition. Redlemeier, Tan & Booth (77) found an inverse relationship between the presence of a chronic disease and the likelihood of

treatment of an unrelated disorder and that individuals with serious mental illness were less likely to receive potentially life threatening interventions for other chronic conditions. It is quite clear that we as MHCP's need to play a greater advocacy role for the medical needs of our patients.

Janofsky, et al (39) found that 63% of evaluees brought to their Emergency room on emergency petitions were admitted to hospital. Of the evaluees admitted to hospital, 34% were involuntary psychiatric admissions, 62% were voluntary psychiatric admissions and 4% were medical admissions. Mordal, Bramness, Holm & Morland (78) detected illegal drugs in 36% of psychiatric and 13% of medical admissions. Drug influence was estimated in 26% of the psychiatric and 14% of the medical patients. They cited substance related disorders in 48% of psychiatric and 6% of medical discharges. Deraas, et al (38) in a retrospective, record based, descriptive study comprising 101 acute psychiatric referrals, noted substance abuse in 43% of cases and the police assisted in one third of all admissions. By comparison 53% of the police referrals in this study had a history of substance abuse and 29.8% had a diagnosis of Substance induced Mood/Psychotic disorder. Approximately 38 % of the SAPS referrals in this study were admitted to the Psychiatric wards for psychiatric management. The low admission rate found in this study could possibly be explained by the high rate of substance abuse seen in our patient population.

Schizophrenia (28.7%) and Bipolar Mood Disorder (24.2%) were the most frequently made diagnoses in this study population. Similar findings were reported by Janofsky, et al (39) in Maryland, USA. However, a Belgium group (59) found that Mood disorders were the most frequent axis I disorder, followed by adjustment disorders, psychoactive substance use disorders, psychotic spectrum disorders and mental disorders due to a medical condition. This is likely due to the very different Axis I diagnoses spectrum found in first world affluent countries as compared to developing countries. It is important to note that only 8.8% of these attendees were referred by the police.

In an Australian study, Meadows, et al (40) prospectively studied consecutive police psychiatric referrals in Adelaide. The most common reason for referral was threat of self harm (28%). Mental illness was only deemed present in 49% and the most common clinical description was "situational crisis" (29%). Schizophrenia was only diagnosed in 18% of referrals. The authors viewed the relative low rates of major disorders as being due to the relative ease that police were able to refer to psychiatry and flexible acceptance criteria. If one has to use the above argument and compare the ease to which police are able to refer to the emergency room at CHBH we should be seeing more situational crises and social problems, especially if the community are using the police as a means of transport. However, this is not the case.

It is also interesting to note that of all the SAPS referrals in our study, only one was given a diagnosis of a Personality Disorder. This may be due to a number of reasons: 1) The admitting clinician may be overworked and extremely busy and may not obtain detailed personal histories of the patients concerned, 2) There is a lack of emphasis in obtaining this information or 3) Due to a study or population bias. Clearly this needs to be rectified and incorporated into the training of registrars and medical officers.

The hypothesis that there is a difference between the group of patients that were admitted to the group that were discharged without admission is true. Generally our study found that patients discharged from the medical admissions ward 20 tended to be male, less than 35 years of age unemployed and with a lower level of education. They were also more likely to have a history of substance abuse and a past psychiatric history. Females were more than twice as likely to be admitted to either ward (psychiatric or medical) and half as likely to be employed. There were no differences between diagnoses of patients who were admitted to the psychiatric ward as compared to those who were not admitted (except for patients who received a diagnosis of Delirium). As can be expected patients diagnosed with delirium were more likely to receive a medical admission and 79% less likely to receive a psychiatric admission. Medical admissions were more likely to have no past psychiatric history and less likely to have a history of history of substance abuse.

However, whether the characteristics of MHCU admitted following a SAPS referral to the psychiatric ward differs from the characteristics of admissions not referred from SAPS requires further study. Behr, et al (69) found very similar demographic characteristics of admissions to CHBH in 1996. However, it is unclear as to whether these patients were referred by the SAPS or not. The population also differed in that acute psychiatric readmissions were researched.

Importantly, readmissions of patients in the 6 month study period were not taken into account in this study. Gillis, Sandler, Jakoet & Dickman (79) found that readmissions amounted to 42% of the total admissions and found that this number often exceeded that of first admissions. Substance abuse is often one of the reasons for relapse and readmission, and this could possibly account for the similarity of the characteristics found.

9.0 RECOMMENDATIONS

Based on the results of this study, the following are some recommendations towards improving the SAPS referral process:

1. Training of all stakeholders (SAPS officers, Emergency Doctors and MHCP) with regards to:
    a. An understanding of the components of the MHCA and the regulations dictating how these should be implemented and observed,
    b. Adequate completion of the MHCA form 22 in the casualty department,
    c. Identification of psychiatric emergencies, patient dangerousness and an awareness of common psychiatric conditions,
    d. More extensive enquiry into the presence, severity and type of substance abuse and related disorders together with forensic history.
2. Amendments to the MHCA form 22. The use of checkboxes, will increase the likelihood of all components being completed appropriately, without delaying the police officers.
3. The receiving facility should have the capacity to identify and divert patients with substance abuse problems to appropriate treatment facilities based on the patients needs, without admitting them into the hospital.
4. Increase the quality of the partnership of all stakeholders concerned and combine resources of the two departments towards implementing a crisis intervention model similar to that employed in other countries.

10.0 LIMITATIONS

As in any retrospective study design, some data might not have been recorded in case notes. However, every reasonable effort was made to collate information from the MHCA form 22 and the hospital notes. The majority of our patients' records contained all the data required, and the conclusions drawn are therefore reliable.

The design of the study was such that only patients with completed MHCA form 22 were regarded as being referred by SAPS. Some patients might have been erroneously included or excluded. Patients may have been referred by the police but no MHCA Form 22's were completed and they were thus excluded from the study.

The emergency doctors (not trained mental health care professionals) documented the presence of mental illness on clinical judgement alone and not necessarily based on DSM IV criteria.

Other reported factors, like readmissions and homelessness associated with outcomes were not considered in this study and would be better obtained via other study designs.

This study may not be generalizable to other provinces/areas with dissimilar procedures of SAPS referrals, emergency evaluations at the Emergency department or to hospitals with different referral bases or populations.

11.0 CONCLUSION

The findings of this study suggest that all stakeholders are not fully compliant with all the procedure with respect to completion of Form 22, as set out in the new Mental Health Care Act No 17 of 2002. Furthermore, not all suspected mentally ill users handed over to emergency departments are appropriate.

Although the procedures are clear in the Act, it would appear that training for all stakeholders in implementing the Act is inadequate. Differences in levels of knowledge may result from differences in perceptions, attitudes and understanding of their roles played in the various stages of the Act.

Like other countries, we in South Africa, need to develop a model that is agreed upon between the police, social services, and district health authorities. This should result in appropriate implementation of the Act and will promote better relations between all stakeholders.

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13.0 APPENDIX

13.1 Approval of protocol

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Jonsson

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER M070731**
PROJECT	The handing over by South African Police Service and outcome of suspected mentally ill patients at CH Baragwanath Hospital
INVESTIGATORS	Dr G Jonsson
DEPARTMENT	Psychiatry
DATE CONSIDERED	07.07.27
DECISION OF THE COMMITTEE*	APPROVED UNCONDITIONALLY

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

DATE 07.09.05 **CHAIRPERSON** .....
(Professors PE Cleaton-Jones, A Dhai, M Vorster, C Feldman, A Woodiwiss)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Dr MYH Moosa

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

13.2 Data Capturing Sheet

Subject No:_____

MHCA FORM 22

1. Was rank, initial and surname of SAPS member specified?

Yes	1	
No	2	

2. Were date and time on Form 22 completely specified?

Yes	1	
No	2	

3. Were the reasons for apprehending the MHCU specified?

Yes	1	
No	2	

4. Was the MHCU's next of kin details specified?

Yes	1	
a. Name	2	
b. Contact details	3	
No	4	

5. Were details on the MHCU's physical condition on hand over to the designated person stated?

Yes	1	
No	2	

6. Were answers to the above all positive?

Yes	1	
No	2	

7. Was MHCA (Form 22) completely filled in?

Yes	1	
No	2	

PATIENTS DEMOGRAPHICS:

8. Age Group

18 – 25yrs	1	
26 – 35yrs	2	
36 – 50yrs	3	
51 – 60yrs	4	
Unknown	5	

9. Sex

Male	1	
Female	2	

10. Highest Level of Education (HLOE)

< Grade 10	1	
Grade 10 – 12	2	
Tertiary	3	
Unknown	4	

11. Employment

Yes	1	
No	2	
Unknown	3	

12. Marital Status

Single	1	
Married	2	
Divorced	3	
Separated	4	
Widowed	5	
Unknown	6	

13. History of substance abuse

Yes	1	
No	2	
Unknown	3	

14. Forensic History

Yes	1	
No	2	
Unknown	3	

15. Past History of Psychiatric Illness

Yes	1	
No	2	
Unknown	3	

16. Family History of Psychiatric Illness

Yes	1	
No	2	
Unknown	3	

17. Presenting diagnosis

Schizophrenia	1	
Bipolar Mood Disorder	2	
Substance induced mood/psychotic Disoder	3	
Mood/Psychotic disorder due to General Medical Condition	4	
Delirium	5	
Personality disorder	6	
Other	7	

Outcome

18. Outcome

Discharged from Ward 20	1	
Admitted to Psychiatric Ward	2	
Admitted to Medical Ward	3	
Unknown	4	