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The capacity of district hospitals to accommodate the decentralisation of mental health services: a cross sectional study of five government district hospitals in Botswana

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THE CAPACITY OF DISTRICT HOSPITALS TO ACCOMMODATE THE DECENTRALISATION OF MENTAL HEALTH SERVICES: A CROSS SECTIONAL STUDY OF FIVE GOVERNMENT DISTRICT HOSPITALS IN BOTSWANA.

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A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Public Health

Johannesburg, 2007

DECLARATION

I, Simone Garrett-Walcott, declare that this research report is my own work. It is being submitted for the degree of Master of Public Health in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

7th day of November, 2007

DEDICATION

For the mentally ill and the health workers who care for them.

ABSTRACT

Introduction

In Southern Botswana, an expected advantage of the decentralisation and integration of mental health services into general health services was the potential to allow for the district hospitals to manage a larger number of mentally ill patients thus decreasing the patient load of Lobatse Mental Hospital. However, the number of admissions to the referral hospital for the south of Botswana is increasing. The objective of the study was to describe the capacity of district hospitals to care for mentally ill patients in terms of the provision of relevant inpatient, outpatient and outreach mental health services as well as the availability of trained workers who agree with the principles of decentralisation of mental health services.

Materials and methods

This was a descriptive cross sectional study involving a self-administered questionnaire survey of key informants and health care providers conducted in five district hospitals in the south of Botswana. There were a total of 5 Chief Medical Officers, and 75 ward staff (12 doctors and 63 nurses) in the study.

The quantitative data was entered using the Statistical Package for Social Scientists (SPSS version 13) and analyzed by this software. The qualitative data was coded and thematically analysed and reported.

Results

In all five hospitals, all the doctors and nurses had undergraduate training in psychiatry and were expected to manage mentally ill patients. There were eighteen health workers (1 doctor and 17 nurses) with postgraduate training in psychiatry/mental health.

Two of the hospitals provided the full scope of inpatient, outpatient, and outreach psychiatric services. Most of the ward staff 65(86.7%) reported that they needed training in psychiatry this included 11 of the 18 staff members with postgraduate training in psychiatry/mental health.

Half of the 75 ward staff that participated in a questionnaire survey reported that they knew the meaning of 'Decentralisation of mental health services' and the majority agreed with this principle. Reasons for agreeing included increased efficiency and accessibility to mental health services, increased training of health workers and decreased discrimination and stigmatisation of mentally ill patients

Discussion

Irrespective of the level of training, many health workers in this study were generally dissatisfied with their level of knowledge and did not think they are equipped to expertly manage mentally ill patients. Further objective assessment of the knowledge and ability of all health workers to recognize and treat mental illnesses should be done to complement the subjective assessment of this study. In addition, there is an insufficient number of health workers with postgraduate training in psychiatry/ mental health in the hospitals. These can result in increased referrals to the referral hospital.

Hospitals with a higher total staff complement do not necessarily provide more outpatient, inpatient and outreach services; however the hospitals with more staff members with Advanced Diplomas in Psychiatric nursing provide a broader range of services.

The decentralisation of mental health services was generally accepted by the staff.

Conclusion

This study found that not all of the hospitals had the capacity to accommodate the decentralisation of mental health services. There were limitations to the quantity of mental

health services provided due to the lack of trained workers and an inadequate provision of relevant inpatient, outpatient and outreach services.

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Last, but not least, I would like to thank God who makes the impossible possible.

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1 INTRODUCTION

Mental illnesses contribute significantly to the burden of disease globally. It is estimated that in 2020 the proportion of disease burden attributable to mental and behavioural disorders will increase to 15% from 12% in 1999 (Funk and Saraceno, 2001). This increase will be mostly in developing countries because of aging populations, rapid urbanisation, poverty and coping with chronic diseases for example HIV/AIDS (Funk and Saraceno, 2001). The impact of mental and behavioural disorders on public health is great. Thornicroft and Tansella (2004) reported that after a review of the disability adjusted life years of 2000, cancers and cardiovascular diseases caused less total disability in the world than mental illness.

1.1 Background

Programmes for the mentally ill are of low priority in developing countries, particularly in Africa where 80% of countries spend less than 1% of their health budget on mental health (World Health Organization, 2001a). An inadequate number of centralised, overcrowded, understaffed and inefficient institutions are usually available for those patients who can access care so these are usually used as a last resort (World Health Organization, 2001a). According to the World Health Report of 2001, nearly two thirds of the world population have less than one psychiatric bed per 10 000 population and more than one half of these are still in stand alone mental hospitals providing ‘custodial’ care instead of ‘mental health’ care (World Health Organization, 2001a).

Decentralisation of mental health services in this study is used to describe the allocation of initial responsibility for the management of mentally ill patients to the peripheral district hospitals as a means of improving the service delivery effectiveness and accessibility. Patients are subsequently only transferred to the central specialist psychiatric hospital if appropriate management is not possible at these facilities.

Decentralisation is frequently presented as a panacea to an assortment of problems in health systems (Vrangbaek, 2007). In this instance, it has been proposed that the move towards decentralisation of mental health services is an opportunity for the integration of mental health into general health services especially at the primary care level (Funk and Saraceno, 2001).

The World Health Report of 2001 advocates for community based mental health as a global approach to mental illness. The globally endorsed shift to the community care approach to mental illness should be supported by the availability of beds in general hospitals for acute cases and long term treatment residential facilities in the community (World Health Organization, 2001a). It should be note that this planned and gradual transition from a predominantly institutionally based service model to a model that provides treatment through community services (deinstitutionalisation) is a different from decentralisation.

Advantages for providing mental health care within general health services at lower levels of care in a decentralised system include: overcoming barriers of geographical accessibility as treatment will be available in the general health facilities in the community closer to home compared to the stand-alone psychiatric hospitals located farther away. In addition it

has been shown that treatment close to home improves the out-patient follow up of mentally ill patients (Funk and Saraceno, 2001) and this has been emphasised in Principle 7 of the United Nations Declaration of The Protection of Persons with Mental Illness and the Improvement of Mental Health Care (United Nations, 1991). There will be a reduction of stigmatisation in areas where having a mental disorder is regarded a shameful, as services provided in a general health facility will be more acceptable than having to be treated in a stand-alone psychiatric facility (World Health Organization, 2007a). The screening and detection of mental illnesses will be improved resulting in early identification and treatment and decreased disability due to mental illness (World Health Organization, 2001b, World Health Organization, 2005a,). There will be improved treatment and quality of care due to a holistic approach to patient care, and savings by the facilities because of sharing infrastructure (Funk and Saraceno, 2001; World Health Organization, 2001b).

Furthermore, in countries with shortages of mental health professionals, providing mental health services through general health care services is the most practical and feasible way to deliver mental health care as it increases the access to these services by the traditionally underserved in the population (World Health Organization, 2005a).

However, it has been argued that there are limitations of decentralising mental health services and integration into general health settings. For example: general hospitals are able to manage the acute episodes of mental illnesses but do not provide a solution to people with chronic disorders who end up in the admission-discharge-admission loop if not backed by comprehensive community mental health services (World Health Organization, 2007a). Furthermore, if the managers of the general health facilities do not have an

understanding of mental health in relation to the local population or it is not a priority then there is the risk of inadequately addressing the mental health needs of the patients thus defeating the goal of decentralisation and integration of mental health services (World Health Organization, 2003). It has been suggested that the capacity of the general hospital will determine the quality of the care provided and as this differs from hospital to hospital, it affects equity and fairness of the services provided by the hospitals (Vrangbaek, 2007).

In addition, with the decentralisation of mental health services there is the risk of fragmentation and duplication of services as well as weak coordination resulting in the inefficient use of resources (World Health Organization, 2003). With the small-scale production of mental health services, the advantage of economies of scale found in large stand-alone mental hospitals is lost (World Health Organization, 2003). Also, in a hospital the externalities from the decision of one unit may negatively affect the performance of the mental health unit especially when there is competition for scarce resources (Vrangbaek, 2007).

Worldwide there are approximately 1.84 million mental health beds available, of these nearly 70% are in stand-alone mental hospitals and 10 % in other locations such as military hospitals, hospitals for specialised populations and long term rehabilitation centres (Jacob et al, 2007). The number of psychiatrists range from 0-1 per 100 000 population and the number of psychiatric nurses range from10.1-50.0 per 100 000 population worldwide (World Health Organization, 2001c). In Botswana, there are 11.0 psychiatric beds per 100 000 population: 7.0 in mental hospitals and 4.0 in general hospitals (World Health Organization, 2001d) (This means that 36.36% of the total mental health beds are located

outside of the mental hospitals). In this country there are 0.4 psychiatrists per 100 000 population and 7.0 psychiatric nurses per 100 000 population (World Health Organization, 2001c).

In Botswana, approximately 3.7% of the population was affected by mental illness in 2003, with indications that this may be increasing (Ministry of Health, 2003). Government is the main provider of formal mental health services, however there is a significant role played by Traditional healers and a small private sector (Ministry Of Health, 1992). The proportion of the national budget dedicated to health is 4.2%, of which 1% is spent on mental health (World Health Organization, 2001d).

Prior to 1938, mental health services as such did not exist in Botswana. The mentally ill were cared for by relatives and traditional healers; and violent patients were put in prison or sent for treatment to neighbouring countries, which had better developed mental health care services. In 1969, with the recruitment of staff, custodial institutional care at the psychiatric hospital was then provided (Ministry Of Health, 1992). During this time, mental health care was separated from other general health services with the needs of the mentally ill considered the responsibility of only the mental health services and mental health care workers irrespective of what type of care was required. There was discrimination against mentally ill patients who were excluded from general health services or given low priority when accessing these (Ministry Of Health, 2003).

As one of the signatories to the Declaration of Alma Ata in 1978, the Government of Botswana has since 1979, had the goal of ensuring community based mental health services

in accordance with the Primary Health Care strategy (Ministry Of Health, 1992, 2003). This meant that the mental health services were to be an integral part of the general health care system. In 1980, this took root with the start of community mental health care, which brought mental health services closer to the people. According to the Ministry of Health, the emphasis was on 'prevention of mental illness, promotion of good mental health and the treatment and rehabilitation of the mentally ill through a community based mental health programme' (Ministry Of Health, 1992; pp3).

The Mental Health Programme Action Plan 1992-1997 and the National Policy on Mental Health (2003) provide the policy framework to steer the decentralisation and integration of mental health services and improve the provision and delivery of comprehensive mental health services in Botswana. These policy instruments contain all the recommendations of how the mental health system in Botswana should function. They detail what is supposed to have been achieved and what mental health services should be available in the district hospitals to ensure that there is access to adequate mental health services by all who need them in the community.

Strategies for the implementation of the National policy on mental health include:
(i) National mental health services management and coordination, which include maintaining a sustainable national mental health service at all levels of the health care system; ensuring that apart from community care, hospitals provide adequate care and safety for patients and staff and appropriate mental health personnel for all facilities; and
(ii) performance improvement, where the Minister of Health is tasked to ensure the incorporation of a mental health component into the training of all health workers; and

strengthening of the referral system, and linkages and communication among health workers and between facilities (Ministry Of Health, 2003).

The Botswana National Mental Health Programme Action Plan 1992-1997 promotes the acceleration of decentralisation and integration of mental health services in the general health care system; upgrading of the physical structures for the care of the mentally ill; increasing the training of mental health workers; and development of appropriate management protocols and treatment guidelines. The final aim is to decrease the patient load at the referral hospitals and make it possible for patients to be treated in or close to their communities in district hospitals. Only patients unmanageable at these facilities will be treated at the referral hospital (Ministry Of Health, 1992).

The provision of mental health services is the responsibility of the Department of Clinical Services at the Ministry of Health. There are two referral hospitals for psychiatry in Botswana: - The Lobatse Mental Hospital, which serves the South of Botswana, and the Jubilee Psychiatric Unit, which serves the north. Ideally, patients should be referred to these from the Mental Health Units in District Hospitals. The emphasis of these units in the district hospitals is on outpatient and outreach services but inpatient services are also provided, where patients are admitted to dedicated beds in the units or to general wards in the hospital if no beds are available in the unit (Ministry of Health, 1992).

At lower levels of care are primary hospitals, then clinics and then health posts, which are the responsibility of the Ministry of Local Government and Lands through Town and District Councils (Ministry Of Health, 1992). Community care is mainly provided by

family welfare educators who are based in primary care facilities. Nurses who have acquired Advanced Diplomas in Psychiatric nursing provide all aspects of mental health and psychiatric nursing including promotive, preventive, therapeutic and rehabilitative mental health services (Ministry Of Health, 1992).

On the other hand, the implementation of the decentralisation of mental health services is the responsibility of the Mental Health Programme under the Department of Public Health, Ministry of Health. To date there has been no official evaluation of the activities and outcomes of the programme to facilitate implementation (personal communication with programme coordinator, 2007). However, there have been successes with activities focussed on information, education and communication of mental health and mental illness including sensitisation and dissemination of the National Policy on Mental Health. These activities have been in the form of workshops. Initially they were focussed at the District Health Team level, then the hospital managers were targeted. Activities have since been cascaded to other cadres of staff within hospitals countrywide. There has been the deployment of health workers trained in mental health/ psychiatry in all hospitals enabling them to offer specialised mental health services. There have been efforts to include the nurses trained in mental health/ psychiatry deployed in the hospitals in all facility activities for mental health as these are expected to advocate for mental health issues. In addition, the Ministry of Health has been building new district hospitals and renovating others and personnel from the programme were actively involved in the advocating and consultation for psychiatric units to be constructed in these district hospitals with success.

The programme coordinator (personal communication, 2007) reported that the challenges faced by the programme include insufficient resources, (human and financial), to effectively carry out activities. Furthermore, the programme has no influence over the psychiatric services or trained personnel that are available at the facilities and this can be a hindrance to the implementation of decentralisation in facilities where there is inadequate commitment of the hospital managers to provide services for mentally ill patients. Significantly, there is no input by this programme into the training of health workers in mental health/psychiatry and their deployment to health facilities.

In the South of Botswana, apart from the referral Lobatse Mental Hospital, there are five government district hospitals and one mine district hospital that provide mental heath services. Each district hospital has an extensive catchment area and should admit patients either to its own psychiatric unit if there are beds available or to the general ward of the hospital. However, most of the work in the units should be outpatient work and outreach services to clinics, health posts and homes (Ministry Of Health, 1992). Only patients who cannot be managed in these settings should be transferred to Lobatse Mental Hospital.

The Lobatse Mental Hospital provides regular specialist outreach services to all the district hospitals in addition to primary hospitals and some clinics located in the South of Botswana. These visits are made by psychiatrists, medical officers and nurses from the hospital. There is an extensive schedule for these outreach visits. In addition, there is a weekly outreach by doctors to the main Referral Hospital for physical illnesses in the South of Botswana. During these outreach visits patients who the staff members at these facilities are unable to manage comfortably are treated. In addition to this, there is teaching of the

staff in the health facility on mental health issues; however, this is not always possible if the patient load is large, in these instances, there is only treatment of patients.

1.2 Statement of the Problem

Despite the policy of decentralisation of mental health services in Botswana, there has been a recent and significant increase in the number of mentally ill patients admitted to the referral Lobatse Mental Hospital. This has led to a situation of overcrowding: in 2001, there were 941 admissions compared to 1676 admissions in 2004, an increase of 78 % (Lobatse Mental Hospital Annual Report, 2002, 2005). The official bed number of Lobatse Mental Hospital is one hundred and eleven, however, the bed occupancy rate was 219% in 2001, an increase of 20% from 1999 (Government of Botswana, 2002, 2004). This elevated bed occupancy rate was maintained in 2004 (Lobatse Mental Hospital, 2005).

The majority of the patients admitted to Lobatse Mental Hospital are referrals from district hospitals. The increased number of admissions to Lobatse Mental Hospital is the result of an increased number of referrals from the district hospitals. In addition, this hospital plays the role of a primary health care facility where it is the first point of contact with the health system for many patients who are self or family referred and bypass the district hospitals (Personal observation as a Senior Medical Officer, Lobatse Mental Hospital). Other reasons for the increased number of admissions include: a higher number of patients presenting with the psychiatric complications of HIV, positive population growth, escalating stress levels in the society and a heightened awareness of availability of mental

health services (Personal communication with Senior Consultant Psychiatrist, Lobatse Mental Hospital, 2006).

Anecdotally it appears that many patients who could be managed at the district hospitals are in fact all admitted to Lobatse Mental Hospital. The official bed number of Lobatse Mental Hospital is permanently exceeded and is no longer realistic as the facilities are inadequate to accommodate the number of patients. From personal observations the overcrowding has led to inefficient service provision, poor observation of patients, poor quality of nursing and medical care, assaults on fellow patients and staff members, escapes by patients, spread of diseases, inadequate sleeping and resting areas and pressure on the available ablution and other facilities.

The officially recommended bed occupancy rate of a hospital in Botswana is 85%. If the statistics of 1999 and 2001 are compared for the five district hospitals in the south of Botswana the occupancy rate of three of these hospitals decreased (Government of Botswana, 2002, 2004). The highest occupancy rate in these three hospitals for the two years was 86.6%, the lowest 46.6%, which indicates that there is the potential to allow the district hospitals to manage a larger number of mentally ill patients thus decreasing the patient load of Lobatse Mental Hospital.

Construction of a new psychiatric hospital with an official bed number of 300 is underway. However, the increasing numbers of admissions to the Lobatse Mental Hospital because of referrals from the district hospitals suggest that there may not be enough capacity at these hospitals to accommodate the decentralisation and integration of mental health service.

Capacity is defined as 'the ability to perform appropriate tasks efficiently, effectively and sustainably' by Hilderbrand and Grindle as cited in Brijlal, Gilson, Mahon, McIntyre and Thomas (1998). Capacity is usually used to describe the human resource component of a system. In this study, it is used to describe the ability of each hospital to care for mentally ill patients in terms of the provision of relevant inpatient, outpatient and outreach mental health services as well as the availability of trained workers who agree with the principles of decentralisation of mental health services.

This means that the new hospital may not address the core problem of why an increasing number of mentally ill patients are, (perhaps inappropriately), being admitted to the referral hospital. With decentralisation and community based mental health services, there is supposed to be a significant decrease in the number of admissions to the referral hospital not an increase (World Health Organization, 2001a).

According to The Mental Health Programme Action Plan 1992-1997, all district hospitals should have the capacity to provide mental health services: each district hospital should be equipped with a mental health unit and/or dedicated psychiatric beds; every unit should have a minimum of three nurses with Advanced Diplomas in Psychiatric nursing, and have competent staff treating mentally ill patients (Ministry of Health, 1992). It is not known whether this has been translated into practice. The purpose of this study therefore, was to determine if district hospitals in the South of Botswana have the capacity to facilitate the decentralisation of Mental Health services.

1.3 Justification for the Study

The capacity of the district hospitals in the south of Botswana to manage mentally ill patients has never been evaluated. With the increasing overcrowded state of Lobatse Mental Hospital, it was necessary to determine to what extent decentralisation of mental health services had occurred and the capacity of the district hospitals to manage mentally ill patients. The results from this study could be used to assist the policy makers to formulate strategies that will ensure district hospitals are able to cope with decentralisation and integration of mental health services into general health services.

1.4 Literature Review

The constitution of the World Health Organisation, defines health as 'A state of complete physical, social and mental well being, and not merely the absence of disease or infirmity' (World Health Organisation, 1998). Therefore, mental health, as an integral component of health through which a person can realise his/her own cognitive affective and relational abilities, is included in the principle of universal access to basic health care for everyone in the community. Thus, mental health is a vital part of health and should be available to all individuals. This principle has been accepted and adopted by the government of Botswana (World Health Organization, 2000; Ministry of Health, 2003).

Because of the close association of mental and physical disorders, their management should be combined and interlinked within the general health care system. Studies in Southern Africa have shown that 20% of all attendances at general outpatient clinics are for mental health problems that often go unrecognised (Ministry Of Health, 2003). In addition, it has

been found that nearly 77% of all psychiatric consultations are provided by generalist health workers. Estimates worldwide of the prevalence of psychiatric disorders in general practice range between 25%-75% (Al-Haddad, Al-Garf, Al-Jowder, Al-Zurba, 1999). Furthermore, it has been argued that the integration of mental and physical health services ensures the early identification and treatment of mental disorders, reducing disability and increasing the possibilities of providing mental health care within the community (World Health Organization, 2005b). Many countries have adopted this model of managing mentally ill patients and have recorded drastic reductions in the number of admissions to referral psychiatric institutions (World Health Organization, 2001a).

The concept of decentralised mental health services has been adopted and implemented in various settings globally. In the Eastern Mediterranean Region, some countries have formulated national plans for mental health services which ensure the integration of mental health in general health services. Similarly, several South American and Caribbean countries signed the Caracas Declaration of 1990, which called for the linking of mental health services to primary health care (World Health Organization, 2001a). In Italy, after the 1978 reform law that stated mental health services should be community based, decentralised and integrated into general health services and advocated for the closure of existing mental hospitals, there was a decrease in the number of admissions to mental health facilities and an increase in mental health units in general hospitals and community facilities available for the mentally ill (World Health Organization, 2001d; Piccinelli, Politi & Barale, 2002).

In Poland, because of overcrowding in psychiatric hospitals there was sectorisation of mental hospitals, the extension of out patient services, opening of day hospitals and a substantial increase in the number of psychiatric wards in general hospitals. This resulted in a 20% reduction in the number of admissions to psychiatric hospitals and improved access to mental health services (Balicki, Leder & Piotrowski, 2000). In Australia, the adoption of the National Mental Health Strategy of 1992, which comprised decentralisation and community based mental health care, resulted in a 20% reduction in the number of stand alone mental health facilities; a 42% reduction in the number of beds in psychiatric institutions; a 34% increase in acute psychiatric beds in general hospitals; a 30% decrease in spending generally on mental health care; and an increase in the spending on community based mental health services (World Health Organization, 2001d).

In Tanzania, the National Mental Health Programme developed in 1970 was initiated in 1981. The main objective was decentralisation with mental health services as part of the general health service; this resulted in a decrease in the number of beds in the mental hospitals (Njenga, 2002). In Kenya, the Mental Health Act of 1989 emphasised the integration of mental health services into general health services to make them more communal and less centralised. As a result of this Act, more than half of all government hospitals were responsible for the management of mentally ill patients, psychiatric nurses were deployed equitably in all general hospitals and all other health workers were obligated to be involved in the treatment of the mentally ill. This resulted in a 50% decrease in the official bed capacity of the main referral psychiatric hospital (Njenga, 2002).

There was decentralisation of mental health services in Uganda in the1960's with mental health units built in general hospitals. In 1996, there was the strengthening and integration of these services into primary health care and training of general health professionals to identify and treat or refer patients. This resulted in the reduction of the bed capacity of the referral mental hospital by half (World Health Organization, 2001d).

However, not all attempts to decentralise and integrate mental health services into general health services have been successful. In Nigeria, a programme to decentralise and integrate mental health services into general health services was formulated as part of the National Mental Health Programme and Action plan in 1991. This programme has not had the intended effect with less than 20% of people with mental health problems having access to services. In addition, there has not been a reduction in the stigmatisation of mental illnesses, health workers lack knowledge of mental health issues and were not willing to treat mental illness, psychotropic drugs have not been included in the essential drug list. In addition, there has been an increase in the number of stand-alone hospitals with more than 80% of psychiatric beds located in mental hospitals. Reasons for the failure of this programme were identified as: i) There was no clear link between the health workers who were expected to treat mentally ill patients and mental health specialists. In addition the general health workers were poorly trained, supported and supervised by the mental health specialists; ii) There was inadequate funding of the both the mental health and general health services, furthermore, 91% of the 2005 mental health budget was allocated to mental hospitals(Saraceno et al,2007).

It has been emphasised that the decentralisation and integration of mental health services into general health services in general hospitals has significant implications for the resources that will be available at these general hospitals. Saraceno et al(2007) in their evaluation to the barriers to the decentralisation and integration of mental health services in low-income and middle-income countries concluded that: i) general health systems in these countries tended to be overburdened with multiple tasks and patient loads and workers do not always have the necessary time to provide proper care for people with mental disorders; ii) there is a low number and limited types of health workers trained and specialised in mental health; in addition, health workers do not receive sufficient supervision and support by specialised staff for the effects of training to be sustainable; iii) essential psychotropic medicines are not continuously available in some lower level health facilities which can hinder appropriate care for people with disorders that can be effectively treated with medication .

According to World Health Organization, for decentralisation and integration of mental health services to be successful it is vital that all general staff have the knowledge, skills and motivation to treat and manage patients suffering from mental illness. They should be equipped with the knowledge and authority to prescribe psychotropic drugs at their level of service provision. In addition, there must be adequate numbers of staff with specialised training to provide expert consultation and support and guidance when needed, there should be an effective referral system in place, and all basic psychotropic drugs must be available at all times in the facilities (World Health Organization, 2001c).

There are probably many reasons for the paradoxical increase in the number of admissions to the referral hospital in the decentralised mental health system of Botswana. This study considers only one possible reason: an inadequate capacity of the district hospitals to accommodate the decentralisation and integration of mental health services. To date there has not been any study done in Botswana to determine if the district hospitals have the capacity to care for mentally ill patients: whether they have workers trained in mental health who agree with the principles of decentralisation of mental health services; and whether the hospitals provide the required range of care including inpatient, outpatient and outreach services. This study seeks to fill these gaps.

1.5 Aim and objectives of the Study

1.5.1 Overall aim

To determine the capacity of the Government District Hospitals to accommodate the decentralisation of mental health services in the south of Botswana.

1.5.2 Specific objectives

1. To determine the overall percentage of nurses and doctors with mental health/psychiatric training in each hospital during the study period.
2. To describe the nature of the postgraduate mental health/psychiatric training(the type and duration) received by the health workers and the self reported perceived need for training of the nurses and doctors allocated to the management of mentally ill patients in each hospital.

3. To determine the psychiatric outpatient, inpatient and outreach services provided for mentally ill patients in each hospital.
4. To explore the use of criteria in each hospital to manage mentally ill patients and to send patients to the referral hospital.
5. To find out the opinions of the nurses and doctors of decentralisation of mental health services in each hospital.

2 MATERIALS AND METHODS

This chapter details the study design, the study setting and the population from which the study sample was selected. The data collection, sources of data and variables that were measured are also described. The chapter concludes by outlining the data processing and data analysis methods that were employed in the study, as well as ethical issues that were taken into account while performing the study.

2.1 Study design

This was a descriptive cross sectional study involving a questionnaire survey of key informants and health care providers.

2.2 Study setting

This study was conducted in five district hospitals in the south of Botswana. The district hospital is the second level referral hospital. Each district hospital caters for a defined geographical area that contains a defined population; the health services are governed by a district health management team. The role of the district hospitals is to provide general preventive, curative and rehabilitative care. Each hospital is managed by a Chief Medical Officer. The staff of district hospitals comprises of general doctors (medical officers), general nurses, midwives, psychiatric nurses, ophthalmic nurses, anaesthetic nurses, and social workers. The staff are expected to manage all illnesses (mental and physical) and to refer complex cases to the national referral hospitals. District hospitals have no specialists; however, some specialists in the referral hospitals routinely provide outreach services. Generally, there are male and female surgical and medical wards, a maternity ward and a

children's ward. In terms of mental health services, the district hospitals are expected to provide outpatient and inpatient services. These services are supposed to be delivered either as a part of the general health services (with inpatients being managed in the male and female medical wards and outpatients seen in a designated room in the outpatient department) or from a separate mental health / psychiatric unit in the hospital. Outreach services should also be provided to the other health facilities in the catchment area (clinics, health posts).

The south of Botswana was selected as a site for this study because this is where the researcher works, and also because of personal observations of the worsening inpatient situation in the Lobatse Mental Hospital.

2.3 Study population

In the south of Botswana, there are five government district hospitals and one mine district hospital. Only the five government district hospitals were included in the study because of the ease of access to these facilities. The hospitals are: Scottish Livingstone Hospital in Molepolole, Kanye Seven Days Adventist Hospital in Kanye, Deborah Retief Memorial Hospital in Mochudi, Bamalete Lutheren Hospital in Ramotswa, and Athlone Hospital in Lobatse. Within each hospital the Chief Medical Officer and nursing staff and doctors managing mentally ill patients were the study population.

2.4 Sampling

There were two groups of participants in this study: the Chief Medical Officers of the hospitals provided the data for Specific objectives 1 and 3. A sample of the ward staff (which included a random sample of staff in addition to all staff with postgraduate psychiatric/mental health training in the hospitals) provided the data for Specific objectives 2, 4 and 5.

There was no sampling of the Chief Medical Officers of the hospitals as they all took part in the study. On consultation with a statistician, it was recommended that a convenience sampling should be performed and at least five nurses and one doctor from each male and female medical ward would be sufficiently representative for the purpose of this descriptive study. In each hospital, the study participants (nursing staff and doctors that managed mentally ill patients) were randomly selected from those on duty on the day of the visit. In addition, all doctors and nurses with postgraduate psychiatric/mental health training in each hospital were included in the study. These staff with postgraduate training were deliberately selected to ensure they were adequately represented in the study, as their numbers were small. The Chief Medical Officers of the hospitals were asked orally for the identification and the location in the hospital, of the staff with postgraduate training in psychiatry/mental health. This question was not a part of the questionnaire but was necessary to determine the location of these trained staff so that they could be invited to participate in the study.

The sampling of ward staff was as follows:

i) In hospitals without psychiatric units (they manage mentally ill patients in the general wards), the nurse in charge on duty and four nurses were randomly selected from those on duty the day of the visit from each male medical ward and female medical ward. All doctor(s) that managed patients on the male and female medical wards were also included in the study sample. The medical wards were chosen because mentally ill patients are managed on these wards. Other doctors and nurses with postgraduate mental health/psychiatric training, who were not in the random sample, irrespective of the ward they were allocated to, were visited and invited to participate in the study, as these were usually called to assist in the consultation/management of psychiatric patients in the medical wards when they are admitted.

ii) In the hospital with a psychiatric unit, the doctor responsible for the unit that month and all the nurses in the unit were invited to participate in the study.

The staff members that participated in this study who were randomly selected from the wards or were invited to participate in the study because of their postgraduate training in psychiatry/mental health or worked in the psychiatric unit are referred to as the 'ward staff' in this study. They were all involved in the inpatient care of mentally ill patients.

2.5 Measurement

The criteria recommended by The World Health Organization World Health Report 2001 were used as the basis, with some modification, for the framework of this study to determine the capacity of district hospitals to accommodate the decentralisation of mental

health services. This narrow approach was taken in this exploratory study because it was less complex logistically. **Table 2.1** below shows how the dimensions of the World Health Organization were modified to be used in this study. Knowledge and authority to prescribe psychotropic drugs at their level of service provision was not assessed in the study. For this to be assessed there should assessment of the actual management of mentally ill patients by the health workers or their response to case studies, both of which are beyond the scope of this study.

Table 2.1: Framework to determine the capacity of the district hospitals in the South of Botswana to accommodate the decentralisation of mental health services.[#]

Dimension of capacity in World Health Report 2001	**Issues used in this study to assess the capacity of the district hospitals**
Knowledge and skills to treat and manage patients suffering from mental illness.	i)Self reported perceived need for training in mental health/psychiatry. ii)Management guidelines for mentally ill patients.
Motivation to treat and manage patients suffering from mental illness.	Opinion of decentralisation of mental health services was used as a proxy.
Knowledge and authority to prescribe psychotropic drugs at their level of service provision.	Not assessed in this study.
Adequate numbers of staff with specialised training to provide expert consultation and support and guidance.	i)Staff trained in mental health/psychiatry in the hospitals ii)Nature of training of the staff
An effective referral system.	ii) Referral guidelines for mentally ill patients.
	Other issues investigated
	Psychiatric outpatient services
	Psychiatric inpatient services
	Psychiatric outreach services

[#]Adapted from the World Health Report 2001 Chapter 4: Mental Health Policy and Service Provision

2.5.1 Data Collection and Sources

Data was collected by self-administered questionnaires. There were two sets of questionnaires used. The Chief Medical Officer of each hospital was asked to fill one questionnaire (please see Appendix A) and the ward staff, (these comprised of the doctors and nurses who had been randomly sampled and the staff with postgraduate mental health/psychiatric training who had been invited to the study), in the hospitals completed another set of questionnaires (please see Appendix B). All study participants were asked to fill in the questionnaire at their convenience and the researcher returned to collect them at an agreed time on the same day.

The Chief Medical Officers were asked in the questionnaire to describe the provision of relevant services and resources for mentally ill patients. They provided data of the overall staff complement of the hospital, on the total number of doctors and nurses trained in mental health/psychiatry in the facility. This addressed Specific objective1. In addition, the allocation in the facility of the staff with postgraduate training in mental health/psychiatry was collected orally. They also reported on the availability and nature of outpatient, inpatient and outreach psychiatric services available in their respective hospitals and the rates for average bed occupancy and average length of stay (retrieved form existing hospital records), which was the focus of Specific objective 3.

The ward staff were asked in their questionnaire about their training, the type and duration of postgraduate mental health training they have received, and whether and why they felt they needed training in mental health. This satisfied Specific objective 2. They were also asked to ascertain the presence of guidelines for the management and referral of mentally ill

patients and their use in their facility to address Specific objective 4. The questionnaire also determined their understanding and opinions regarding the concept of decentralisation of mental health services for Specific objective 5.

2.5.2 Variables

Based on the objectives of the study, variables were formulated and these were then used to formulate the questionnaires that were used for the study (please see Appendix C for detailed description of the variables that were measured in the study).

2.6 Pilot study

A Pilot study was done in a primary hospital in the south of Botswana. This hospital was chosen because it provides some similar services for the mentally ill. Piloting ensured that all questions were worded correctly, understood by the participants, were acceptable and provided valuable information as to the feasibility of implementations and the length of the questionnaire.

2.7 Data processing methods and data analysis

The quantitative data was entered using the Statistical Package for Social Scientists (SPSS version 13) and analyzed by this software. The qualitative data was coded and thematically analysed and reported. Categorical data were summarised using proportions and displayed in frequency distribution tables. Comparisons were among the hospitals, but the aim of the

study was not to assess differences so comparisons between hospitals were merely descriptive and significance tests were not performed.

2.8 Ethical considerations

At all times the rights of the participants were ensured. Participants were not coerced in any way. The Code of Ethics for Research on Human Subjects of the University of Witwatersrand was enforced during this study.

(i) Ethics approval was obtained from the Health Research Unit, Ministry of Health, Botswana (Reference no. PPM&E 13/18 PS Vol I(1)) and the Human Research Ethics Committee(Medical) University of the Witwatersrand (Clearance certificate protocol number M051109) (please see Appendix D and E for a copies of ethics clearance certificates)

(ii) Informed consent (please see Appendix F for the Information leaflet and informed consent form) was sought before the participants were asked to fill the questionnaire. The information in this handout communicated adequately and as completely as possible the aims of the study in a manner that was understood by the participants.

(iii) The researcher at all times protected the participants' honour, dignity and privacy. Anonymity and confidentiality was ensured by not collecting names of the participants and coding any identifying data.

(iv) There was access to the raw data only by the researcher.

3 RESULTS

In this chapter the findings of the study are detailed. The chapter is divided into two parts: Section 3.1 deals with the responses of the Chief Medical Officers of each hospital; this describes the services and staff available in the district hospitals for the management of mentally ill patients. Section 3.2 presents the responses from the ward staff; it includes a general profile of the participants, and then presents details of their postgraduate training in psychiatry/mental health, their use of guidelines to manage and refer mentally ill patients, and their knowledge and opinions of the decentralisation of mental health services. The five government district hospitals that were included in this study are randomly represented by the letters V to Z to maintain anonymity. There were eighty health workers involved in the study: This consisted of five Chief Medical Officers and seventy-five ward staff

3.1 Resources and services available for the provision of mental health care

This section presents data provided in the questionnaires filled by the five Chief Medical Officers.

3.1.1 Availability of trained staff for the management of mentally ill patients

The total number of doctors and nurses that were currently working in each district hospital is shown in **Table 3.1**. In all five hospitals, all the doctors had undergraduate training in psychiatry and were expected to be able to manage mentally ill patients. Similarly, all nurses had undergraduate training in psychiatry/mental health, and all were expected to treat mentally ill patients as necessary.

Table 3.1: Number of doctors and nurses working in the five district hospitals in the South of Botswana (2006)

Type of staff	**Number per hospital**					
	V	**W**	**X**	**Y**	**Z**	**Total**
Doctors	7	11	6	15	8	**47**
Nurses	155	148	58	55	138	**554**
Total	**162**	**159**	**64**	**70**	**146**	**601**

There were eighteen health workers (1 doctor and 17 nurses) with postgraduate training in psychiatry/mental health. **Table 3.2** shows the distribution: Hospital X was the only one with a doctor with postgraduate training in psychiatry. This represented 16.7% of the total number of doctors in this hospital. This hospital also had the highest percentage of the total complement of nurses with postgraduate training (8.6%). This was followed by Hospital W with 4.1% of all its nurses trained and Hospitals V, Y and Z each with fewer than 2% of all nurses trained.

Table 3.2: The distribution of doctors and nurses with postgraduate training in psychiatry/ mental health in the five district hospitals in the South of Botswana (2006)

Type of staff		**Number and percentage of overall complement of each hospital**					
		V	**W**	**X**	**Y**	**Z**	**Total**
Doctors	*no.(%)*	0	0	1(16.7)	0	0	**1**
Nurses	*no.(%)*	3(1.9)	6(4.1)	5(8.6)	1(1.8)	2(1.4)	**17**
Total		**3**	**6**	**6**	**1**	**2**	**18**

3.1.2 Outpatient, inpatient and outreach psychiatric services provided

Only Hospitals V and W provided the whole spectrum of outpatient, inpatient and outreach psychiatric services. **Table 3.3** below illustrates the services provided by each hospital.

Table 3.3: Outpatient, inpatient and outreach psychiatric services provided by the five district hospitals in the South of Botswana (2006)

Psychiatric Services	**Hospital**				
	V	**W**	**X**	**Y**	**Z**
Outpatient	Yes	Yes	Yes	Yes	No
Inpatient	Yes	Yes	Yes	No	Yes
Outreach	Yes	Yes	No	No	No

Outpatient psychiatric services

Four of the hospitals provided outpatient psychiatric services. This was provided daily in Hospitals V, X and Y and twice weekly in Hospital W. Hospital Z was the only one that did not provide outpatient psychiatric services.

Inpatient psychiatric services

Hospital Y was the only one without inpatient psychiatric services. Hospital V had a separate psychiatric unit containing 6-10 beds situated away from the other buildings of the hospital. In Hospitals W, X and Z, patients were managed in the general wards, there was no specific number of beds allocated to psychiatric patients; beds were used for mentally ill patients as the need arose.

Outreach psychiatric services

Only two of the hospitals (V and W) provided psychiatric outreach services. Hospital V provided outreach services to clinics and health posts and Hospital W to clinics. Nurses with psychiatric training went on the outreach trips for both of these facilities. The Chief Medical Officers of Hospitals X, Y and Z reported that their hospitals did not provide psychiatric outreach services due to lack of trained staff/personnel.

3.2 Results from the questionnaire survey of ward staff

This section presents data from the questionnaire survey of the seventy-five ward staff that participated in the study. These comprised of the doctors and nurses who had been randomly sampled from the medical wards, those in the psychiatric unit and the staff with postgraduate mental health/psychiatric training who had been invited to the study. They were all involved in the inpatient care of mentally ill patients in the hospital.

3.2.1 General profile of the study participants

The seventy-five ward staff comprised twelve doctors and sixty-three nurses. Just over half of the participants were female, the majority were forty years or below; and the majority of the staff had been working in their wards for one year or less **(Table 3.4).**

3.2.2 Training in psychiatry/ mental health

As reported in **Section 3.1.1**, all the doctors and nurses had undergraduate training in psychiatry/mental health; only 18 staff members (1 doctor and 17 nurses) had postgraduate training. All eighteen staff members with postgraduate training were included in the

questionnaire survey. Thus, 18 (24.0%) participants had postgraduate level training in psychiatry/mental health, while the majority (76.0%) did not.

Table 3.4: Profile of ward staff participants in the five district hospitals in the South of Botswana (2006) (n=75)

	Hospital					Total	
	V	**W**	**X**	**Y**	**Z**	**no.**	**(%)**
Number of staff							
	12	16	16	16	15	**75**	**(100)**
Sex							
Male	3	3	5	5	5	**21**	**(28.0)**
Female	9	13	11	11	10	**54**	**(72.0)**
Age(years)							
20-30	3	5	5	6	9	**28**	**(37.3)**
31-40	6	7	9	8	5	**35**	**(46.7)**
41-50	2	4	2	1	1	**10**	**(13.3)**
51-60	1	0	0	1	0	**2**	**(2.7)**
Designation							
Doctor	1	2	3	4	2	**12**	**(16.0)**
Chief Registered nurse	0	2	2	2	1	**7**	**(9.3)**
Senior Registered nurse	0	1	3	2	3	**9**	**(12.0)**
Psychiatric/Mental health nurse	3	4	3	1	1	**12**	**(16.0)**
Registered nurse	8	7	5	7	8	**35**	**(46.7)**
Length of time has worked in the wards/ managing mentally ill patients in the unit(years)							
1 or less	7	10	8	8	8	**41**	**(54.)**
2-4	4	5	5	7	6	**27**	**(36.0)**
5-7	1	1	2	1	0	**5**	**(6.7)**
8-10	0	0	1	0	0	**1**	**(1.3)**
More than 10	0	0	0	0	1	**1**	**(1.3)**

Type and duration of postgraduate training in psychiatry/mental health

Twelve (67%) of the participants with postgraduate training had an Advanced Diploma in psychiatry. The rest had training of various types and duration as depicted in **Table 3.5.**

Table 3.5: Type and duration of postgraduate training in psychiatry/mental health acquired by staff working in the wards of the five district hospitals in the South of Botswana: 2006 (n=18)

Type of training	**Duration (months)**	**Number per hospital**					**Total no. (%)**
		V	**W**	**X**	**Y**	**Z**	
Advanced Diploma in psychiatry	13-18	3	4	3	1	1	**12 (66.7)**
Primary health care & mental health workshop	≤ 1	0	0	1	0	0	**1 (5.6)**
Workshop on psychiatric illnesses	≤ 1	0	1	0	0	1	**2 (11.0)**
Masters in Family Medicine	19-24	0	0	1	0	0	**1 (5.6)**
Masters in Psychotherapy	31-36	0	0	1	0	0	**1 (5.6)**
Degree in Community Health Nursing & Health Services	31-36	0	1	0	0	0	**1 (5.6)**
Total		**3**	**6**	**6**	**1**	**2**	**18 (100)**

Allocation of staff with postgraduate training

- In Hospital V, all staff members with postgraduate training in mental health were allocated to the psychiatric unit of that hospital.
- In Hospital W, of the four staff members with Advanced Diploma in Psychiatric nursing, three were working in the outpatient department and provided psychiatric services there and one in the paediatric ward who did not manage mentally ill patients at all. The other two staff members were allocated to the medical wards where they managed mentally ill patients as the need arose.

- In Hospital X, of the three staff members with Advanced Diplomas in Psychiatric nursing, two were working in the out patient department and one in the medical ward. The other trained staff members were working in the medical wards. They were all expected to manage mentally ill patients if present in the department or wards.
- In Hospital Y, the only trained staff (a nurse with an Advanced Diploma in Psychiatric nursing) worked in the out patient department and saw all mentally ill patients.
- In Hospital Z, both staff members trained in psychiatry/mental health worked in the medical wards where they managed mentally ill patients as was necessary.

Participants' perceived need for training in psychiatry/mental health

Most of the participants felt that they needed postgraduate training in psychiatry/mental health. Of the eighteen staff members with postgraduate training in psychiatry/mental health, eleven (61.1%), felt that they needed training in mental health and of the fifty-seven staff who had no postgraduate training, all but three thought they needed training in the management of mentally ill patients. Thus, 65 (86.7%) staff members reported that they needed training in psychiatry; reasons included (four participants did not give any reasons):

- Not comfortable in managing mentally ill patients (23; 35.4%);
- The knowledge they had acquired was too long ago (16; 24.6%);
- The knowledge they had was too basic /inadequate and the training period too short to effectively equip them to manage mentally ill patients, so they needed specialist knowledge either through post graduate diplomas or higher qualifications(13; 20%);
- They had no previous training (9; 13.8%).

Participants generally felt that mental health was a dynamic field of study that necessitated continuous updates and as such constant refresher courses in the form of workshops or continuing medical education or in-service training were needed for new knowledge and skills. For example, one staff member with no postgraduate training in psychiatry felt she needed training because she always had to be dependent on nurses with training.

Ten (13.3%) staff members did not think that they needed training in psychiatry (seven of these were trained at postgraduate level, and three at undergraduate level). Of these, eight reported that they were confident with the training they had already received and could effectively manage mentally ill patients and two reported that they were comfortable managing mentally ill patients. Two of the staff members with postgraduate training reported that they were both willing to provide training to other staff members in the hospital and to be used as resource persons.

3.2.3 Criteria for the management and referral of mentally ill patients

Presence of guidelines for the management of mentally ill patients

Hospital V was the only hospital that had internal guidelines for the management of mentally ill patients. These were titled: 1) On admission Guidelines and 2) Treatment guide for Psychosis. However, only 7 of the12 ward staff (58.3%) involved in the study in this hospital correctly reported that such guidelines existed. None of the other hospitals had internal or external guidelines for the management of mentally ill patients; and in these hospitals the majority of staff members correctly reported that there were no guidelines for the management of mentally ill patients **(Table 3.6)**

Table 3.6: Health workers' response to whether guidelines for the management of mentally ill patients were present in the wards (n=75)

		Number per hospital					Total	
		V	**W**	**X**	**Y**	**Z**	***no.***	***(%)***
Yes	*no.(%)*	7(58.3)	4(25.0)	5(31.3)	5(31.3)	2(13.3)	**23**	**(30.7)**
No	*no.(%)*	2 (16.7)	9(56.3)	8(50.0)	9(56.3)	13(86.7)	**41**	**(54.7)**
Don't know	*no.(%)*	3(25.0)	3(18.7)	3(18.7)	2(16.7)	0	**11**	**(14.6)**
Total	***no.(%)***	**12(100)**	**16(100)**	**16(100)**	**16(100)**	**15(100)**	**75**	**(100.0)**

Although staff members reported that there were guidelines available, few could identify them. Some participants incorrectly identified the Mental Disorders Act and the National Policy on Mental Health 2003 as management guidelines.

Presence of Guidelines for the referral of mentally ill patients

One third of the participants interviewed reported that they were aware of the existence of guidelines for the referral of patients to the referral hospital. The majority of the participants in Hospital V reported that there were guidelines for the referral of mentally ill patients in their hospital; however, in the other hospitals the common opinion of the participants was that there were no referral guidelines **(Table 3.7).** Although a third of all participants reported that they were present, no guidelines for the referral of mentally ill patients to the referral hospital were seen in any of the wards.

Table 3.7: Ward staff's report of the presence of guidelines for the referral of mentally ill patients to the referral hospital from the five district hospitals (n=75)

		Hospital					Total	
		V	**W**	**X**	**Y**	**Z**	***no.***	***(%)***
Yes	*no.(%)*	9(75.0)	4(25.0)	5(31.3)	3(18.7)	4(26.7)	**25**	**(33.3)**
No	*no.(%)*	2(16.7)	9(56.3)	8(50.0)	10(62.5)	11(73.3)	**40**	**(53.3)**
Don't know	*no.(%)*	1(8.3)	3(18.7)	3(18.7)	3(18.7)	0	**10**	**(13.3)**
Total	***no.(%)***	**12(100)**	**16(100)**	**16(100)**	**16(100)**	**15(100)**	**75**	**(100)**

Criteria used to refer mentally ill patients

Of the 25 participants who reported that there were guidelines available for the referral of mentally ill patients, 15 (60%) thought that these were always used by staff treating mentally ill patients and seven of them were from Hospital V. The 40 participants who reported that there were no guidelines for the referral of mentally ill patients reported that their decision to refer patients was based on consultation with staff who are trained in psychiatry to determine when a patient should be referred; if patients are violent and at risk of hurting other patients and staff, suicidal or at risk of absconding from the ward; if a patient is not improving or needs a psychiatric report; and when there are no caregivers or the family members insist that the patient be sent to the referral hospital because of fear of the patient escaping from the hospital as there were no secure facilities. One participant reported that referral depended on the number of staff members available on the ward. Others said that it was the decision of the doctor to refer the patient.

3.2.4 Opinions of the health workers on decentralisation of mental health services

The participants were divided regarding their knowledge of the term 'Decentralisation of mental health services' **(Table 3.8).**

Table 3.8: Knowledge of decentralisation among health workers managing mentally ill patients in the five district hospitals in southern Botswana (n=75)

Correctly defined		Number per hospital					Total	
		V	**W**	**X**	**Y**	**Z**	***no.***	***(%)***
Yes	*no.(%)*	5(41.7)	10(62.5)	9(56.3)	8(50.0)	6(40.0)	**38**	**(50.7)**
No	*no.(%)*	7(58.3)	6(37.5)	7(43.7)	8(50.0)	9(60.0)	**37**	**(49.3)**
Total	***no.(%)***	**12(100)**	**16(100)**	**16(100)**	**16(100)**	**15(100)**	**75**	**(100)**

Half of them reported that they knew the meaning of the term 'Decentralisation of mental health services' and gave the correct definitions. Hospital W had the highest percentage of staff who knew what this term meant.

Opinions of participants who correctly defined 'decentralisation of mental health services'

Most (33; 87%) of the 38 participants who knew the meaning of 'Decentralisation of mental health services' agreed with this concept, and five (13%) did not. There were several reasons why staff members agreed with 'Decentralisation of mental health services'. The dominant issues that emerged were:

1. ***Increased efficiency***:

Several staff members felt that there would be a decrease in the congestion/overcrowding at the referral hospital and the consequent reduction in work overload of the staff members of this hospital.

- "*Many mentally ill patients can be managed at the district hospital with the help of the psychiatric nurse and consultation with the psychiatrist at the referral hospital without need for transfer to the referral hospital."*
- *"…many referrals are unnecessary. There are cases that can be handled at the district. It will be cost effective to manage patients at the district because ambulances and personnel are needed to transfer patients to referral hospital and these could be used for other duties."*

2. ***Increased skills***:

Staff members felt decentralisation would improve their ability to manage mentally ill patients. They felt it would:

- *"Encourage learning of management of psychiatric illnesses by the general nurses not trained in psychiatry as they will be exposed to mentally ill patients."*
- *"Help to decrease the discrimination against the mentally ill by health workers and remove the total dependence on the referral hospital."*

3. ***Increased accessibility***:

Participants felt decentralisation would increase access to mental health care by making services more available in more facilities; follow up of patients would be easier. Some said it would:

- "*…make services more accessible to all patients (especially in remote areas) by providing them at the local health facilities."*
- *"…decrease institutionalisation of patients in Lobatse Mental Hospital; and people in places far from this hospital can have access to mental health services."*

4. ***Decreased stigma, increased acceptance of patients and family involvement***:

It was thought that decentralisation would:

- *"...help to reduce stigma and make it possible to treat patients for physical illnesses at the same time as mental illnesses making health care convenient and caring for the patient as a whole not concentrating on the mental aspect only."*
- *"Ensure that family and community members play an active role in the management of the mentally ill patients… "*
- *"... patients will in turn be more comfortable if treated near to their homes and will be able to get support and love from their family members."*

The five staff that disagreed with 'Decentralisation of mental health services' disagreed largely because they felt there was not enough capacity to deal with mental patients at district hospital level. They were mainly concerned about:

1. ***The lack of adequately trained staff***

- *"General Nurses have no idea about the management of mentally ill patients they were not trained to manage mentally ill patients. The referral hospital has more experienced staff that can deal with violent patients."*
- *"There are too few staff trained or with knowledge of psychiatry/mental health to manage the patient load that would be at the district hospital."*

2. ***Lack of security and safety for staff and other patients***

- *"The district hospital is not set up to deal with mentally ill or violent patients. These patients are sometimes harmful and unpredictable and could disturb other patients*

and can be dangerous to themselves and unless reliable isolation was available these patients should not be managed with other patients."

Opinions of the participants who could not define 'decentralisation of mental health services'

The 37 participants who reported that they did not know the meaning of the term 'Decentralisation of mental health services' were then asked whether or not they agreed with the idea of first treating mentally ill patients at district hospitals and only transferring them to the referral hospital when unmanageable. Of these 30 (81%) reported that they agreed and 7 (19%) did not. Those staff members who agreed with first treating the patients at the district hospitals touched on issues that were similar to those given by the staff members who knew the definition of decentralisation and agreed with it. These included issues around efficiency and better utilisation of resources:

- *"This would assist in the reduction of the overcrowding/congestion at the referral hospital. There is an increase in the incidence of mental illness and this has led to the overcrowding at the referral hospital, treating patients at the district hospital would reduce the overcrowding at the referral hospital."*
- *"District hospitals should be fully utilised even by mentally ill patients."*

The issue of access was a dominant theme again – participants also felt bringing services to community level would decrease stigma.

- "*The best place to treat patients is as close to home as possible. It would be convenient for the patient and family members and will ensure efficient resource*

management. In addition, managing patients closer to home was in itself therapeutic for mentally ill patients."

- *"Treating mentally ill patients at the district hospital would assist in decreasing discrimination. A way to foster acceptance of the mentally ill in the community."*

Those that disagreed with first treating mentally ill patients at district hospitals raised concerns about insufficient number of trained staff "*Mentally ill patients should only be treated by staff trained in psychiatry (a psychiatrist or a psychiatric nurse) and these were not always available at the district hospital."* The other concern was security: some felt that district hospitals do not have secure facilities; that most mentally ill patients are aggressive and pose a danger to other patients, and so should not be treated at district level, while others felt that the relevant drugs were not available in the district hospital for treating these patients.

Table 3.9 below attempts to summarise the capacity of the district hospitals to effectively manage mentally ill patients.

Table 3.9: Summary of the capacity of the district hospitals in the south of Botswana to manage mentally ill patients. (2006)

Requirement	**HOSPITAL**				
	V	W	X	Y	Z
Trained Staff*	Yes	Yes	Yes	No	No
Outpatient Services	Yes	Yes	Yes	Yes	No
Inpatient Services	Yes	Yes	Yes	No	Yes
Outreach Services	Yes	Yes	No	No	No
Management Guidelines	Yes	No	No	No	No
Referral Guidelines	No	No	No	No	No
Agreement with decentralisation (% of staff)**	100%	93.8%	87.5%	81.3%	60.0%

* Minimum of three staff members with an advanced diploma in psychiatry (As prescribed in the Mental Health Programme Action Plan 1992-1997)

** The percentage of staff members interviewed who agreed with the decentralisation of mental health services.

4 DISCUSSION

This study sought to determine the capacity of district hospitals in the south of Botswana to accommodate the decentralisation of mental health services; whether they have workers trained in mental health who agree with the principles of decentralisation of mental health services and whether they provide relevant inpatient, outpatient and outreach services. The findings indicate that while psychiatric services are offered in all five hospitals, there are gaps in the range of services provided and in the availability of human resource to treat patients. This chapter discusses the findings of the study and relates the findings to existing policy recommendations and to experiences elsewhere from available literature. The limitations are also discussed.

A decentralisation initiative is not possible if the capacity for implementation is not adequate (Brijlal et al, 1998). This study has addressed some key issues that would significantly affect the implementation of decentralisation of mental health services in Botswana. However, it is important to bear in mind when considering the findings of this study that there are other vital factors that could influence the capacity of the district hospitals, in addition to those discussed in this study, that were not considered. These include the financial resources, management styles as well as the organizational structures, processes and culture present in the hospitals (Brijlal et al, 1998). If the hospitals have weaknesses in the internal systems or there are disincentives to treat mentally ill patients, then even if there are adequate resources the ability of the hospitals to provide efficient mental health services as a part of the general health services will be compromised.

The capacity of the district hospitals can be assessed in several ways including other objective assessments like provider competence and drug availability. While this study looked at some objective measures, there was an inclination towards more subjective measures where the actual health workers that are tasked with the management of the mentally ill patients were questioned on issues pertinent to the successful implementation of the decentralisation of mental health services. This narrow approach to assess the capacity was made as it was important at least in this initial exploratory assessment of decentralisation of mental health services to get an overall idea of the opinions of the implementers of this programme. However, there should be follow-up studies looking at the decentralisation with broader, more objective approaches.

4.1 Availability of trained staff for the management of mentally ill patients

Human resources are most crucial in the health system and this is especially so for the mental health service (World Health Organization, 2005a). Trained mental health workers are pivotal to the successful implementation of decentralisation and integration of mental health services. All personnel tasked with the care of the mentally ill should receive appropriate training and support and be motivated and committed to their work (Ministry of Health, 2003). It is known that positive patient care outcomes are closely linked to well trained, motivated health personnel. In addition, there must be adequate numbers of staff with specialised training to provide expert consultation and support and guidance when needed (World Health Organization, 2001c).

In Colombia, there was the use of a semi-structured interview to assess the mental health knowledge and attitudes of health workers at several sites. It was found that between 16%-67% of the staff of the various sites had not received mental health training and very few saw themselves as being able to provide mental health care of any kind (Cohen, 2001).

This study finds that out of 601 staff working in the five hospitals, all had received some psychiatric/mental health training during their undergraduate education. Of the 75 ward staff study participants, most of whom are registered nurses, all had received undergraduate psychiatric/mental health training, but many feel ill equipped to manage mentally ill patients and think that they need advanced training. Of significance is that the majority of the 18 staff members with postgraduate psychiatric/mental health training are not confident in managing mentally ill patients. Therefore, irrespective of the level of training, health workers are generally dissatisfied with their level of knowledge and do not think they are equipped to confidently and expertly manage mentally ill patients.

This result is similar to a qualitative study done to explore the experiences of general health care workers who provide mental health care and the experiences of the patients who received their care. In this study, it was reported that most of the health workers perceived the mental health care of people with serious mental illness to as too specialised for generalists and felt that they lacked sufficient skills and knowledge and this inhibited greater involvement in the care of these patients (Lester et al, 2005). In a cross-sectional study in Kenya that sought to determine the psychological problems the non-psychiatric doctors commonly encountered, the treatment offered and/or referrals made and to determine any obstacles in providing treatment: doctors recognised that psychiatric

disorders were common among their patients. However, insufficient knowledge to treat mental disorders was cited as an obstacle by the doctors to effectively manage these patients (Othieno, Okech, Omandi & Makanyengo, 2001). A national survey to determine how primary care physicians treat psychiatric disorders in the United States of America found that while physicians reported treating most psychiatric problems themselves one of the barriers to primary care mental health cited by these physicians was insufficient training to treat them (Orleans, George, Houpt & Brodie, 1985). While these are subjective assessments of the training needs, it is significant as it determines the approach of the health workers to the mentally ill patient and negatively influences their willingness to participate in their management.

The findings of this study, like those above suggest that health workers, although considered by the health system to be adequately trained and capable to manage mentally ill patients, may themselves not be comfortable to manage these patients. This lack of confidence may prevent them from attempting to take responsibility for the care and management of the mentally ill patient.

This study assessed the self-reported perceived need for training, which is a subjective assessment of health workers' training needs. The literature states that perceived training needs is an important component of any training needs survey (World Health Organization, 2005a). Nevertheless, it is necessary to perform objective assessments of the training of health workers to complement the results of this study and to determine personnel competence and if indeed the training in mental health received by the health workers is inadequate.

The Mental Health Programme Action Plan 1992-1997 stipulates that to maintain a good standard of care in mental health units a minimum of three nurses with an Advanced Diploma in Psychiatric nursing is needed. These are referred to as experts/ specialists in the management of mentally ill patients. Short workshops or other courses with mental health components are not considered as postgraduate training for psychiatry. If only nurses with an Advanced Diploma in Psychiatric nursing are considered, then only Hospitals V, X and W have the minimum number needed to effectively and adequately care for the mentally ill patients in the catchment area. Of note is that despite the limited availability of trained personnel, not all staff with postgraduate psychiatric/mental health training are allocated to manage mentally ill patients. For example, one of the trained staff members in Hospital W is working in the Paediatric ward and is not treating mentally ill patients routinely.

In this study there is only one doctor with postgraduate training in psychiatry/mental health and he reports to be confident treating mentally ill patients. All other doctors interviewed were neither trained nor confident.

The increase in the number of trained/specialist mental health workers have been one of the objectives of the decentralisation of mental health services worldwide. Psychiatric technicians were trained in Mozambique and placed in primary health care facilities to diagnose, prescribe treatment and administer to the psychiatric needs of patients attending these facilities (World Health Organization, 2005b). In Poland, there has been emphasis on specialisation in psychiatry for all cadres of health workers with a system of continuing medical education and refresher courses (Baliki, Leder & Poitrowski, 2000). With

decentralisation, family doctors were trained to manage the bulk of the mental disorders in Egypt to address the lack of psychiatrists (Okasha, 2004). In Ghana, lack of manpower and supervision of generalist health workers was cited as a threat to the decentralisation of mental health services. However, attempts were being made to train psychiatric nurses (World Health Organization, 2003a). Other countries addressed the lack of specialised mental health personnel by increasing the mental health components in the undergraduate training (Njenga, 2002; Piccinelli, Politi &Barale, 2002)

In this study there is an insufficient number of health workers trained in psychiatry/mental health in the hospitals as well as a common view that the training acquired in psychiatry/mental health is inadequate. This can result in increased referrals to the referral hospital. In situations where the few trained health workers become overloaded or are performing duties away from the facility or are not on duty and there is need for expert consultation, the general staff at the facility will most probably be uncomfortable to manage the mentally ill patients and would more likely refer patients inappropriately, resulting in inappropriate utilisation of the referral hospital.

4.2 Range and type of psychiatric services provided by the hospitals

Not all of the hospitals provide the full scope of inpatient, outpatient, and outreach psychiatric services. Results of the study show that hospitals with a higher total staff complement do not necessarily provide more psychiatric services; however, the hospitals with more staff members with Advanced Diplomas in Psychiatric nursing provide a broader range of services. Hospitals Y and Z with only one such trained staff member each provide

only one service. The frequency of outpatient and outreach services also differs for each hospital.

Psychiatric units integrated within general hospitals (as opposed to stand-alone psychiatric facilities) have been found to be one of the great developments in the area of mental health service delivery during the recent decades. One of the many advantages of such a provision is decreasing the negative reaction and stigma towards mentally ill patients by the community (Mohit, 2001).

Stigma is an important factor in the reluctance of many people to seek help for mental illness (Knapp et al, 2007; Saxena et al, 2007). Mental illnesses are more stigmatised than physical illnesses. Because general health facilities are not associated with any specific health condition the mentally ill patient is accepted by the community as he/she is treated in the same health facility by the same health workers who treat patients who are not mentally ill (Saxena et al, 2007; World Health Organization, 2007b). Therefore seeking services for mental illness at a general hospital will not be associated with the rejection and avoidance associated with seeking services in a stand-alone specialised facility (World Health Organization, 2007b). This makes the general hospital more acceptable and therefore accessible for mentally ill patients and their families. In addition, stand-alone hospitals are usually far from the homes of patients and when they are treated there it disrupts normal daily life, employment and family life and removes individuals from the normal supports necessary for recovery (World Health Organization, 2007b).

In Italy, there were psychiatric inpatient wards in general hospitals in 80% of the health districts (Piccinelli, Politi & Barale, 2002). Although inpatient services are provided by four of the five hospitals, Hospital V was the only one with a psychiatric unit that had its own beds and staff that were dedicated to and responsible for only the mentally ill.

Although the psychiatric unit of Hospital V is undoubtedly a positive step for mental health services in the south of Botswana, it is not ideal. This unit is situated away from the other buildings of the hospital. Although it is supposed to be a part of the district hospital, it is similar to a stand-alone hospital in that the staff and patients are separate from the other units and wards of the hospital. It has a separate entrance and so makes attendance there obvious, thus sustaining stigmatisation. It is noticeably segregated from the rest of the hospital (Personal Observation).

Worldwide the median total number of beds available for care of mentally ill patients is 15.0 per 100 000 population with a variation of 3.3 per 100 000 population in the South East Asia region to 93.0 in the European region (World Health Organization, 2001d). There is no separate statistics on the breakdown of the number of beds per 100 000 in psychiatric hospitals and in district hospitals worldwide.

It is recommended that a certain number of beds be allocated in district hospitals for the acute care of the mentally ill patient but no specific number has been advised. In Australia, this lack of specification was to accommodate the different circumstances in the various districts allowing each to plan based on the local population needs; in 1998 there were 15.0-20.0 beds per 100 000 population in the general hospitals (Whiteford, Buckingham &

Scheid, 2002). In Botswana there are reported to be 4 beds per 100 000 population available for mentally ill patients in the district hospital (World Health Organization, 2001d). There is a suggestion that the number of beds allocated for the mentally ill in a district hospital should be 10% of the hospital's beds (Ministry of Health, 1992).

This study finds that apart from the psychiatric unit of Hospital V that has 10 beds, the other three hospitals that provided inpatient psychiatric care have no formal allocation of beds as is suggested. Instead, beds are allocated as the need arise this is in line with the practice in Australia. Further investigation into the cause of this practice by the general hospitals is necessary.

While the primary aspect of decentralisation investigated in this study is the transfer of patients from the district hospitals to the referral hospital, some aspects of the relationship of these district hospitals with primary care facilities are important. Outreach services to the district hospitals by the specialists of the referral hospital are vital; but this aspect was beyond the scope of this study. However, within the decentralised model, an important function of district hospitals is to offer outreach mental health services to lower level health facilities. In order for decentralisation to be successful, the primary care facilities must be supported by the district hospitals to ensure an integrated mental health system. If mentally ill patients are not treated or are mismanaged in the primary facilities then pressure will be put on the district hospitals with inappropriate referrals that can increase patient load, or seriously ill patients who may not be suitable for management at the district hospital and would have to be referred directly to the referral hospital(World Health Organization,

2007a). Both of these are obstacles to the district hospital providing effective, quality mental health services.

Three of the five hospitals do not have psychiatric outreach services to other primary health care facilities reportedly due to lack of staff. This deficiency is a barrier to the decentralisation of mental health services as the supervision and support of the primary care facilities by the general hospitals is stated to be one of the factors to facilitate this initiative (World Health Organization, 2005a).

In Poland, as a part of the decentralisation of mental health services, the majority of outpatient clinics for mentally ill patients are well developed, manned by staff trained in psychiatry/mental illnesses and are open daily (Balicki, Leder & Piotrowski, 2000). With decentralisation in Kenya, outpatient clinics were set up in general hospitals (Njenga, 2002). The majority of the hospitals in this study provide outpatient psychiatric services. Outpatient services are expected to facilitate the follow up of mentally ill patients and detect and manage early signs of mental illness before hospital admission is required. However, a study in Italy reported that an increase in outpatient services was not accompanied by a substantial decrease in hospital admissions (Piccinelli, Politi & Barale, 2002).

Outpatient, inpatient and outreach services at the district hospital are vital as they all work together to reduce the patient load at the referral hospital. Barriers to the provision of the whole range of these services by the district hospitals in this study should be addressed to ensure optimal provision of mental health services in the decentralised system.

4.3 Patient management and referral

Integration and decentralisation of mental health services within the primary health care system contributes to the better functioning of general health services. This system should be based on careful division of the services into the various levels of care, effective management guidelines and the existence of an efficient referral system (Mohit, 2001). The need for management guidelines and referral guidelines has been addressed in both the Mental Health Programme Action Plan 1992-1997 and the National Policy on Mental Health. In the National Policy on Mental Health, it is reported that guidelines are important as they encourage the development of high quality and uniform national standards of care for mental health services (Ministry of Health, 2003).

However, as this study reveals, national management or referral guidelines in the form of protocols, treatment manuals or procedures have not been formulated and so none are available in the hospitals to assist health workers with the management of mentally ill patients. Hospital V formulated its own internal management guidelines; these are not standardised national guidelines, but they are practical, functional, and aim to assist the staff members that care for mentally ill patients. However, even in this hospital where management guidelines were available, only seven of twelve participants were aware of them; and in the other hospitals without guidelines, approximately half of all the health workers interviewed either did not know if there were management or referral guidelines present in their hospital or incorrectly stated that they were available when they were not. This evaluation of the presence of management and referral guidelines was however subjective and this is a limitation of this study. An objective assessment is required to

determine whether guidelines exist in these facilities, and whether health workers know of their existence. However, the findings are important as all of these health workers are expected to manage patients with mental illness but many are not aware of what is available to them and what should be available to assist in the management and referral of mentally ill patients. This may be the cause or the consequence of leaving the management and referral of mentally ill patients to the few health workers with postgraduate training in mental health.

Increasingly clinical guidelines are being proposed as mechanisms to improve the quality of patient care in all areas of medicine, they are regarded as important sources of reference and guidance (Croudace et al, 2003; Fervers et al, 2006). While there is evidence as to their usefulness with a study reporting that the adherence to treatment guidelines for the management of depression has enhanced treatment outcomes (Schneider et al, 2005). Others have found no evidence that implementing guidelines influenced the health workers' detection performance or the clinical outcomes for the patients (Upton et al 1999; Croudace et al 2003).

Guidelines are needed to ensure health workers manage patients in a systematic and standardised manner. The lack of these in the district hospital will affect negatively the management of the mentally ill patients, especially when health workers are unsure of how to manage the patient. The absence of guidelines in the district hospitals would mean that if there is uncertainty about how to manage patients, no support would be readily available, and staff would be more inclined to refer patients for specialist management at the referral hospital. Therefore, their absence hinders the ability of the staff in the district hospitals to

confidently treat mentally ill patients in a decentralised mental health system. It should be emphasised that the presence of guidelines does not guarantee that it will affect the patient outcomes because it is possible that health workers may fail to read these guidelines, they may fail to implement them, or there may be failure of the content of the guidelines themselves (Croudace et al, 2003).

Most of those staff members who correctly report that there were no referral guidelines in their facility leave the decision to refer up to the psychiatric nurse and/or doctor. This illustrates the inability of the nurses without postgraduate training in psychiatry/mental health in the district hospitals to make decisions about the management of mentally ill patients and their almost total reliance on those with training. This impact adversely on the capacity of the district hospital to effectively provide decentralised mental health services.

4.4 The opinions of health workers on decentralisation of mental health services

Decentralisation is a concept that is fundamental to the organization of mental health services in Botswana, yet half of the staff interviewed do not know the meaning of the term 'decentralisation of mental health services'. However, the majority of staff members agree with decentralisation or with the idea of first treating mentally ill patients at district hospitals and only transferring them to the referral hospital when unmanageable, and many acknowledge the importance of this on the reduction of the workload and overcrowding in the referral hospital. The questions asked in the questionnaire were not sensitive enough to elicit complex issues associated with the decentralisation of mental health services, for

example, what experiences health workers have had with the decentralisation of mental health services or why they had the opinions they did on this initiative. Nevertheless, they did provide a general sense of the health workers' perceptions of decentralisation. Generally there was optimism for the management of mentally ill patients and the staff members are motivated to treat them. However, a minority of staff members thought this should not be done. The reasons these staff members give should be noted and further investigated to determine whether these factors influence the implementation of decentralisation.

This study sought to determine the capacity of the district hospitals in the south of Botswana to accommodate the decentralisation of mental health services. For decentralisation and integration of mental health services to be successful it is vital that all general staff have the knowledge, skills and motivation to treat and manage patients suffering from mental illness. In addition, there should be an effective referral system in place. The study found that not all the hospitals had this capacity. It was found that while decentralisation of mental health services was generally accepted by the staff, there were limitations to the quantity and quality of mental health services provided. This was due to the perception of the health workers that they were not capable of managing mentally ill and the lack of specialist training in psychiatry/mental health of the workers. The provision of relevant inpatient, outpatient and outreach services was not adequate and optimal due to the lack of trained staff.

There were other limitations of the study in addition to the limitations identified above, these include: only district hospitals in the South of Botswana were considered in this

study. The results do not reflect what occurs in the North of the country and cannot be generalised to the whole of Botswana as there is variation in the wealth of the districts and the resources available for the mentally ill in the hospitals. The framework to determine the capacity of the district hospitals to accommodate the decentralisation of mental health services was modified from The World Health Organization World Health Report 2001. This narrow approach to the measurement of the capacity was used for convenience as it was less complex logistically however, it is a limitation of the study because the results may not reflect the broader dimensions of capacity as it applies in mental health services. Others resources needed for the successful decentralisation for example consultation-liaison service to the other medical departments, the availability of psychotropic medicines at the district hospitals and financial resources were not included.

In addition, the use of a self-administered subjective assessment of training needs and the presence of management and referral guidelines, unaccompanied by objective assessments of provider competence and the presence of the guidelines presents an incomplete evaluation of these issues and is a limitation of the study. The competence of health workers was assessed based on their self-reports rather than an objective assessment of their knowledge and skills.

The opinions of the health workers on the decentralisation of mental health services was superficially addressed in the study and did not tackle the complex reasons for their responses. There is also the possibility of socially desirable bias where the health workers gave the researcher the response that was acceptable but not necessarily true. This may

have been the reason why some health workers agreed to the use of guidelines that did not exist.

This study is a cross-sectional survey. Data on cause and effect were collected at one point in time and as a result evidence of causal relationships between the variables investigated and the effectiveness of decentralisation is not possible. In addition, outcomes over time cannot be investigated.

5 RECOMMENDATIONS

Training and Guidelines for Psychiatry

There should be a detailed investigation by the Mental Health Programme into the reasons why staff feel they need more training in psychiatry/mental health. This should include objective assessments of their competence to treat mentally ill patients. The deficiencies, if any, should be reported to the Institute of Health Sciences, which is responsible for the training of the nurses.

To ensure adequate numbers of health workers trained in mental health/psychiatry the Mental Health Programme must do a situational analysis to determine the number of trained health workers in each district hospital. This can be used as justification to advocate for an increase in the number of health workers receiving postgraduate training.

The most common mental disorders in Botswana should be identified by the Mental Health Programme. Practical manuals and guidelines for the district hospitals should be formulated and prepared for these illnesses by personnel of the programme with consultation of the specialists at the referral hospitals. These should be disseminated to the district hospitals to provide support and ensure standardised care and management for the mentally ill. These guidelines should be evidence based. They should include an easy tool for the screening and identification of psychiatric morbidity that could be used by all health workers and clearly define the responsibilities and obligations of the health workers, at each level of the health system, to the mentally ill patient as well as the criteria and procedures for the referral of mentally ill patients.

Outpatient, Inpatient and Outreach Psychiatric Services

The personnel from the Mental Health Programme should provide intensified education and information to the Chief Medical Officers emphasising the need to have outpatient, inpatient and outreach services. The obstacles to providing these services should be determined and addressed as is possible.

It is important that each hospital has at least 10% of its inpatient beds designated for mentally ill patients (according to national recommendations). Outpatient psychiatric services should be available at all district hospitals on a regular basis. At least once weekly but ideally, daily. Attempts should be made to organise regular outreach psychiatric services from the district hospitals to lower level facilities by staff with postgraduate training in psychiatry.

Monitoring

Regular monitoring and assessment of the mental health care provided in the district hospitals is needed. This should start with a more focussed and objective study of the criteria used in the framework in this study. Monitoring of other aspects of the care of the mentally ill can then be addressed for example availability of psychotropic drugs, the effectiveness of the outreach services by the referral hospitals to the district hospitals, causes of patient relapse, and provider competence.

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Appendix A

SERVICES AVAILABLE FOR THE MENTALLY ILL

To be filled by the Chief Medical Officer of the district hospital

1. How many doctors work in this facility? _____

2. How many nurses work in this facility? _____

Training

3. How many doctors have undergraduate training in psychiatry in this facility? _____

4. How many doctors have postgraduate training in psychiatry in this facility? _____

5. How many doctors are expected to manage mentally ill patients? _____

6. How many nurses have undergraduate training in psychiatry in this facility? _____

7. How many nurses have postgraduate training in psychiatry in this facility? _____

8. How many nurses are expected to manage mentally ill patients? _____

Services provided

9. Does this hospital have outpatient psychiatric services? **(1)**YES□ **(2)** NO□

(i) If YES how often are these services? **(1)** daily□ **(2)** weekly□ **(3)** monthly

(4) Other_____

10. Does this hospital have inpatient psychiatric services? **(1)**YES□ **(2)** NO□

If YES (i) are there: **(1)** Beds in a general ward? □

(2) A separate ward? □

(3) Other _____

(ii)How many beds are there? **(1)**1-5□ **(2)**6-10□ **(3)**11-15□ **(4)**16-20□ **(5)** ≥20□

(iii) What was the average bed occupancy in:

2003: **(1)** ≤30%□ **(2)**31-40%□ **(3)** 41-50%□ **(4)**51-60%□ **(5)**61-70%□ **(6)**71-80%□ **(7)**81-90%□ **(8)** ≥90%□

2004: **(1)** ≤30%□ **(2)**31-40%□ **(3)** 41-50%□ **(4)**51-60%□ **(5)**61-70%□ **(6)**71-80%□ **(7)**81-90%□ **(8)** ≥90%□

(iv) What was the average length of stay (days) of mentally ill patients in:

2003: **(1)**1-4□ **(2)**5-8□ **(3)**9-12□ **(4)**13-16□ **(5)**17-20□ **(6)** 21-24□ **(7)** 24-28□ **(8)** ≥29□

2004: **(1)**1-4□ **(2)**5-8□ **(3)**9-12□ **(4)**13-16□ **(5)**17-20□ **(6)** 21-24□ **(7)** 24-28□ **(8)** ≥29□

11. Is there an outreach service provided by this hospital? **(1)** YES □ **(2)** NO□

If NO proceed to 7(iv).

(i) If YES, where to? **(1)**Primary Hospitals□ **(2)** Clinics□ **(3)** Health Posts□ **(4)** Homes□ **(5)** Other_____

(ii) What is the average distance (km) of the outreach facilities from this facility? **(1)** ≤50□ **(2)** 51-100□ **(3)** 101-150□ **(4)**150-200□ **(5)**201-250□ **(6)** ≥251□

(iii) What are the designations of the staff that go on these trips? **(1)** community mental health nurses□ **(2)** senior registered nurses□ **(3)** registered nurses□ **(4)** enrolled nurses□ **(5)** doctor □ **(6)**other_____

(iv) If NO to question 7 explain why not _____

_____

THANK YOU FOR FILLING THE QUESTIONNAIRE

Appendix B

TRAINING IN PSYCHIATRY/MENTAL HEALTH, MANAGEMENT OF MENTALLY ILL PATIENTS AND OPINIONS ON DECENTRALISATION

To be filled by the doctors/nurses of the ward/unit caring for mentally ill patients

1. Age: **(1)** 20-30□ **(2)**31-40□ **(3)**41-50□ **(4)** 51-60□ **(5)** ≥ 61□

2. Sex: **(1)** male□ **(2)** female□

3. Designation: **(1)** psychiatric/mental health nurse□ **(2)** senior registered nurse

(3) registered nurse□ **(4)** enrolled nurse□ **(5)** doctor □ **(6)**other_____

Training

4. Was there a mental health component in your undergraduate training? **(1)** YES□

(2) NO □

5. Have you had any training after your undergraduate training in the management of mentally ill patients? **(1)**YES□ **(2)** NO□

If YES (i) what type of training? _____

(ii) How long was the training (months)? **(1)** ≤ 1□ **(2)**2-6 □ **(3)** 7-12□

(4) 13-18□ **(5)** 19-24□ **(6)**25-30□ **(7)** 31-36□ **(8)** ≥37□

6. How long (years) have you been in this ward/ managing mentally ill patients in this unit?

(1) ≤ 1□ **(2)**2-4□ **(3)** 5-7□ **(4)** 8-10□ **(5)** ≥10□

7. Do you think you need training in the management of mentally ill patients?

(i) YES□ Why do you think so? **(1)** never had training□ **(2)** not comfortable managing patients□ **(3)** Other _____

(ii) NO□ Why do you think so? **(1)** had training□ **(2)** comfortable managing patients□

(3) Other _____

8. Is there a system in place where staff members with psychiatric experience teach the less experienced ones? **(1)** YES□ **(2)** NO

Management of the mentally ill

9. Are there guidelines for the management of mentally ill patients in this hospital?

(1)YES□ **(2)** NO □

If YES, state their names, source, title and year of publication?

_____

_____

10. Are there guidelines for the referral of mentally ill patients to Lobatse Mental Hospital?

(1)YES□ **(2)** NO□

(i) If YES, do you use them? **(1)** always□ **(2)** sometimes□ **(3)** never□

Why? _____

_____

(ii)If NO, how do you know when to refer patients? _____

_____

Opinions

11. Do you know what is meant by the term 'Decentralisation of mental health services'?

(1) NO □ (continue with question 11.)

(2) YES □ (define below then continue with question 12.)

_____

_____

12. Do you think that mentally ill patients should be first treated at district hospitals and only transferred to the referral hospital when unmanageable?

(1)YES□ **(2)** NO□

Why? _____

_____

13. What do you think about decentralisation of mental health services?

(1) Strongly agree□ **(2)** Agree□ **(3)** Disagree□ **(4)** Strongly disagree□

Why? _____

_____

THANK YOU FOR FILLING THE QUESTIONNAIRE

Appendix C

Description and definitions of the variables measured and presented in the results of this study

Objective 1: To determine the percentage of nurses and doctors with mental health / psychiatric training in each hospital, the variables were:

i) The total number of doctors and nurses

ii) The number of doctors with psychiatric training

iii) The number of nurses with psychiatric training

Objective 2: To describe the nature of the training of the nurses and doctors allocated to the management of mentally ill patients in each hospital, the variables measured were:

i) Whether the doctor/nurse has undergraduate mental health/psychiatric training

ii) Whether the doctor/nurse has postgraduate mental health/psychiatric training

iii) The type and the duration of postgraduate training acquired

iv) Whether the doctor or nurse feels the need for training in mental health

v) Why the doctor or nurse feels s/he needs training in mental health.

Objective 3: To determine the psychiatric outpatient, inpatient and outreach services provided for mentally ill patients in each hospital, the variables were:

i) Whether hospital provides outpatient, inpatient and outreach services

ii) The frequency of provision of outpatient services

iii) The number of inpatient beds allocated to mentally ill patients

iv)The average inpatient bed occupancy rate and average length of stay

v) The types of health facilities that outreach is provided to

Objective 4: To explore the use of criteria to manage and refer mentally ill patients, the variables measured were:

i) Whether there were guidelines in to manage mentally ill patients

ii) Whether there were guidelines for the referral of mentally ill patients

iii) Whether staff used the referral guidelines

Objective 5: To find out the opinions of the nurses and doctors of decentralisation of mental health services, the following variables were measured:

i) Whether the health worker knew the meaning of the term decentralisation of mental health services.

ii) Whether health workers who correctly defined the meaning agreed or disagreed with the principle of decentralised health services.

iii) Whether health workers who did not correctly define the meaning agreed or disagreed with the process of first treating mentally ill patients at district hospitals and transferring them if necessary to the referral hospital

Appendix D

Copy of Ethics approval obtained from the Health Research Unit, Ministry of Health, Botswana.

Appendix E

Copy of the clearance certificate obtained from the Human Research Ethics Committee

(Medical) University of the Witwatersrand

Appendix F

Information leaflet and informed consent