ANALYSIS OF CONSULTATION LIAISON PSYCHIATRYAT PIETERSBURG HOSPITAL IN LIMPOPO PROVINCE, SOUTH AFRICA.

by

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Declaration

I, Vivian Nomfundo Mzimba, declare that this dissertation hereby submitted to the University of Limpopo for the degree of Masters of Medicine – Psychiatry, has not been previously submitted by me for a degree at this or any other university, nor will it be submitted by me for a degree at this or any other university in future. I declare that this is my work in design and in execution, and that all material contained here has been truly acknowledged.

........................................... .........................................................

Initials & surname (Title) Date

Student Number: ........................................
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Prof E. A. Weiss, co-supervisor, whose selflessness, time and care were sometimes all that kept me going

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I must express my gratitude to Patrick, my husband, for his continued support and encouragement.

To my boys, Thato and Moeketsi, for gracefully accepting my long absences from home during my studies.
Abstract

ANALYSIS OF CONSULTATION LIAISON PSYCHIATRY AT PIETERSBURG HOSPITAL IN LIMPOPO PROVINCE, SOUTH AFRICA.

Introduction

Liaison Psychiatry, also known as Consultative Psychiatry or Consultation Liaison Psychiatry is the specialty of psychiatry that deals with the interface between medicine and psychiatry, usually taking place in a general hospital setting. Many studies worldwide have shown that the incidence of psychiatric disorders in the general hospital population ranges between 30% and 40% which supports the need for psychiatric care in this population of patients. Liaison Psychiatry consists of two components, the consultation where the psychiatrist is asked to give an opinion regarding the management of patients referred by other medical disciplines and the liaison component where the psychiatrist liaises between the patient and the referring team².

Aim of the study

The aim was to establish the profile of patients referred for Consultation Liaison Psychiatry in Pietersburg Hospital during the year 2012.

Method

This was a retrospective review of all patients referred to Consultation Liaison Psychiatry over a twelve-month period at the Pietersburg Hospital, which is a tertiary hospital. The information was collected with a specifically designed tool and entered into an Excel data base. Statistical analysis was done using Epi-Info. Descriptive statistics were used to analyze the data.
Results and discussion

A total of 101 files of patient referred for consultation were retrieved. Significant is the age distribution with an average age of 36 years and 82% younger than 50 years. This means that the elderly do not appear in this cohort of patients for reasons not immediately evident.

There were more male (54%) than female patients (46%), most came from the local district, others were referred from peripheral centers for tertiary care.

Same day referrals were rather low (19.8%). All cases were seen within 24 hours of referral. Forty-seven percent of the referrals were done by completion of interdisciplinary forms. The most common reason for referral documented was ‘confusion’ (31.7%), Medical wards referred most of the patients (n=46, 45.5%), most of which had a diagnosis of delirium (32.7%). The most common cause of the delirium was epilepsy (21.2%), followed by HIV (18.2%).

Psychiatric services took over 61.4% of the cases, 12.9% were transferred to a psychiatric unit.

The above results resonated largely with international and local findings with marked differences especially in relation to diagnoses of anxiety and depression.

Conclusion

A Patient with a diagnosis of delirium suffering from epilepsy was more likely to be referred to Consultation Liaison Psychiatry services for assessment, and more likely to be managed in the medical ward.

Epilepsy and HIV related acute confusional states as a reason for referral is in keeping with literature, and points out to the need for better management of these conditions by the medical discipline.

This study indicated lack of adequate clinical information on the referral forms, due to poor history taking by the referring doctors. Better patient care and early interventions will be facilitated by better communication between the various departments.
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**Definition of terms**

**Delirium**: Acute state of confusion, mostly caused by a medical condition including substance withdrawal.

**Psychosis**: Mental illness characterized by a loss of contact with reality, evidenced by changes in behaviour, disorganized speech, hallucinations and delusions.

**Abbreviations**

- **AIDS**: Acquired immunodeficiency syndrome
- **ATT**: Attempted
- **ARV**: Anti retroviral
- **CVA**: Cerebrovascular accident
- **HIV**: Human immune virus
- **TBI**: Traumatic brain injury
- **PTSD**: Post traumatic stress disorder
- **GMC**: General medical condition
- **SIPD**: Substance induced psychotic disorder
- **BMD**: Bipolar mood disorder
- **MHCU**: Mental health care user
- **ZCC**: Zion Christian Church
CHAPTER 1

1. INTRODUCTION

1.1. Background

Many studies worldwide have shown that the incidence of psychiatric disorders in the general hospital population ranges between 30% and 40% which supports the need for psychiatric care in this population of patients.\textsuperscript{1,2,3,4} Liaison Psychiatry, also known as Consultative Psychiatry or Consultation Liaison Psychiatry is the specialty of psychiatry that deals with the interface between medicine and psychiatry, usually taking place in a general hospital setting. It overlaps with other disciplines including psychosomatic medicine and neuropsychiatry.\textsuperscript{2} Liaison Psychiatry focuses on the diagnosis and treatment of psychiatric disorders in complex medically ill patients.\textsuperscript{3} It consists of two components: the consultation, where the psychiatrist is asked to give an opinion regarding the management of patients referred by medical, surgical, obstetrical or other teams and the liaison component where the psychiatrist liaises between the patient and the referring team and carries out joint management.\textsuperscript{2}

The scope of Consultation Liaison Psychiatry includes patients with acute or chronic medical illnesses that result in psychotic or behavioural symptoms. It covers patients with a psychiatric disorder due to a general medical condition, patients with mental disorders who have been admitted for the treatment of medical problems and patients who have attempted suicide or self-harm. At times psychiatrists are consulted about capacity to consent to treatment, especially surgery.\textsuperscript{2,3}
Delirium is the commonest medical complication encountered in Consultation Liaison Psychiatry in Africa.\textsuperscript{4,5} Psychiatric disorders attributed to physical illness were found to be approximately 15-25\%, the commonest being infection/infestations.\textsuperscript{4}

The human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) has become a major contributing factor to delirium, as well as a complicating factor in those patients suffering from mental illness. The latest figures show that the number of persons living with HIV in South Africa increased from an estimated 4,21 in 2001 to 5.8 million in 2011 (Statistic South Africa, 2011 report).\textsuperscript{6} There also is a high prevalence of HIV infection amongst patients with psychiatric disorders.\textsuperscript{7} A South African study reported a prevalence rate of 9\% in one state psychiatric hospital and 29\% on the acute psychiatric admission ward.\textsuperscript{8}

Complicating this situation is the fact that HIV infected patients are more susceptible to the development of extrapyramidal side effects to psychotropic drugs.\textsuperscript{8,9} With the advance of ARVs the psychiatrists and physicians must have extensive knowledge about drug to drug interactions in this group of patients.\textsuperscript{10} Anxiety and depressive disorders were more prevalent in HIV infected patients than in the general population.\textsuperscript{7}

The lack of knowledge of the treatment of behavioural symptoms in the physically ill and the factors contributing to this behaviour often become a source of misunderstanding between the psychiatrist and the physicians. As a result, patients who should be promptly referred to psychiatry are not referred and those that need primary medical management are referred to psychiatry with the expectation that the patient be transferred to a psychiatric unit\textsuperscript{3}. The fear of patients harming themselves or harming other patients in the ward appears to be the dominant factor in the reluctance of medical staff in managing behaviourally disordered patients in a general ward.
Consultation Liaison Psychiatry aims to increase awareness among health care providers of both the prevalence and impact of mental illness on physical health.\textsuperscript{3,6} The consultation process ensures better clinical care for patients, while the liaison activities foster positive changes in the attitude and behaviour of other health care providers.\textsuperscript{1}

Limpopo Province is the most Northern of the nine provinces in South Africa. It is the fifth largest of the country’s provinces, with a population of 5,5 million people\textsuperscript{6}. It is mainly a rural province. Pietersburg Hospital is considered the tertiary institution in Limpopo and is the main referral hospital for Limpopo Province. It provides secondary and tertiary services to all district and regional hospitals. It is a 450-bed training institution and part of the University of Limpopo. It provides secondary and tertiary services to all district and regional hospitals.

Pietersburg Hospital has a Department of Psychiatry but has no facilities for psychiatric inpatient care and no secure facilities within the general wards. The Department of Psychiatry covers emergency psychiatric care in casualty, runs outpatient services for adults and children, and is responsible for psychiatric consultation liaison with all other departments. The nearest psychiatric unit is located 35 km away and attached to Mankweng Hospital which forms part of Pietersburg Hospital. The only psychiatric referral hospital for the region is located 55 km away in a rural environment.

There is a serious shortage of psychiatric beds in the psychiatric facilities used as referral centres for Pietersburg. This puts pressure on the psychiatric registrar to co-manage the patients with behavioural disturbances within the general hospital setting rather than transferring these patients to the psychiatric facilities. Psychiatric hospitals are not equipped to treat serious physical conditions.
1.2. Motivation

During my rotation at Pietersburg Campus as a registrar in psychiatry, I noticed that there was a lack of communication and collaboration between the doctors who requested a psychiatric consultation and the psychiatrist. Patients were frequently subjected to physical restraints at the slightest observation of change in behaviour. I found that I had to advocate for the patients and provide support to medical staff when providing Liaison Psychiatry.

Challenging situations arose when physically ill patients with an associated psychiatric disorder were difficult to manage in a medical ward but were too ill to be transferred to a distant psychiatric unit.

I experienced a lack of interest by medical doctors working in all other disciplines when a patient showed psychiatric symptoms or had a history of psychiatric illness, abdicating their responsibility to the psychiatric registrar. This caused confusion for the nursing staff and the patients as to who was taking the ultimate responsibility.

The problem has been ongoing for a number of years with no workable policies in place. Earlier efforts in a better inter-disciplinary working relationship had failed. No situational analysis or study with the aim of collecting evidence for a better model has ever been done.

1.3. Problem Statement

The current format of Consultation Liaison Psychiatry in Pietersburg Hospital is not understood by the role players, and is not conducive to the best possible care for patients in the interface between medicine and psychiatry.

1.4. Research Question

What are the specific challenges facing Consultation Liaison Psychiatry at Pietersburg Hospital, and how can they be addressed?
1.5. **Aim of the Study**

To establish the profile of patients referred for Consultation Liaison Psychiatry in Pietersburg Hospital during the year 2012, and to support the challenges by evidence collected through the analysis of this service. The findings should provide the basis for negotiating an improvement in the standard of interdisciplinary care between psychiatry and other disciplines.

1.6. **Objectives of the Study**

- To establish the current method of referral of patients to Liaison Psychiatry.
- To evaluate the medical and psychiatric diagnosis at the time of referral and the interventions by the psychiatrist.
- To evaluate time frames for referral and outcome of the referred patients.
- To evaluate the outcome of the interventions.

1.7. **Significance of the study**

The study is intended to guide the Department of Psychiatry towards a better approach to the Consultation Liaison Psychiatry component amongst the services rendered.
CHAPTER 2

LITERATURE REVIEW

History of Consultation Liaison Psychiatry

Consultation Liaison Psychiatry has always existed as a service, but it was stagnant in its development as a psychiatric sub-specialty. This has resulted in limited research in this area. Most articles have been published primarily in medical and surgical journals in which researchers believed it would have the greatest impact.\textsuperscript{11,12,13}

The general hospital played a major role in the development of psychiatry. Mentally ill patients were kept in asylums, which were far removed from most of the population. Antipsychotics were not yet discovered and therapy was non-existent.\textsuperscript{14}

In 1902 psychiatry declared its first entry into an American general hospital, catering for acute psychiatric patients requiring triage, treatment of drug addiction, emergency care of delirium and psychotic disorders secondary to general medical diseases. Psychiatrists left asylums for the general hospitals and started working alongside other doctors. These were the formal beginnings of Consultation Liaison Psychiatry. Stigma and discrimination were the major challenges hindering good collaboration between psychiatrists and other doctors.\textsuperscript{14} Many studies have published been published defending the relevance of Consultation Liaison Psychiatry and the challenges that hindered its progress.
Reasons for low referral rate in Consultation Liaison Psychiatry

In their study in the early 1970’s, Mezey and Kellet\textsuperscript{15} wanted to ascertain the reasons against referral to a psychiatrist. They were motivated to conduct the study because they noticed that there was a low referral rate regardless of a high prevalence of psychiatric conditions among the medical and surgical patients. Forty five percent of the referring doctors did not refer because their patients disliked being referred to a psychiatrist. Some physicians were not satisfied by the psychiatric services.

There was poor rapport between the psychiatrist and other doctors. This was stated to be due to a lack of contact between the psychiatrist and the other doctors which led to poor communication. Psychiatrists in turn complained that physicians refer inappropriately and were unavailable for discussion of the patients.

Fleminger and Mallet\textsuperscript{16} did a survey of all new psychiatric referrals for psychiatric advice from medical and surgical wards of a general teaching hospital over a period of 5 years. They found that 0.7\% of the admissions were referred to psychiatry (1 in 140), 80\% of the referrals were made by physicians and 20\% by surgeons and gynaecologists. They suggested that the smaller numbers referred by surgeons might be due to the shorter duration of stay of surgical patients and therefore less chance for disturbances of behavior to unfold and present.

Strategies for improving the referral rate

Crisp\textsuperscript{17} reviewed previous studies on referral patterns and the role the psychiatrist can play in improving the referral rate. In his own experience working as a psychiatrist in a general hospital for five years, he noted that the increase in referral rate correlated with a more active approach by the psychiatric team. He concluded that the initial stimulus for improving the liaison services lies within the psychiatrist and that the appropriateness of referrals can only be achieved by good communication between the physician and psychiatrist.
Another study done by Vaz and Salcedo\textsuperscript{1} aimed to evaluate the characteristics of the referral requests and the impact it has on the referral patterns. Complementary requests made for patients with psychotic disorders due to a medical condition requires close collaboration between the psychiatrist and the physician. Good communication is the key to success of this referral request. Requests made due to psychological complications of a disorder required the psychiatrist to address the patient’s mental state and teach the staff on how to manage issues like treatment refusal\textsuperscript{3}. Patients who were labeled as problematic with stigma connotations required the psychiatrist to work more with the doctors to alleviate their fears and try and establish the real need for a psychiatric consultation.

In the end Vaz and Salcedo\textsuperscript{1} concluded that Consultation Liaison activities have the capacity to improve referral rates and induce a positive change in the physician’s attitude towards psychiatric illnesses.

**Evaluation of the extent and quality of Consultation Liaison Psychiatry.**

Citero et al.\textsuperscript{18} identified clinical indicators that can be used to measure the effectiveness of Consultation Liaison. Their aim was to identify important aspects that can be affected by Consultation Liaison services. The role of a psychiatrist is to help develop a shared perspective about patient management with all stakeholders involved in the patient’s care. They further explained the necessity of training the medical team to identify psychiatric symptoms. The relationship between medically ill patients with behavioural problems and the health care professionals in the medical setting is often strained. Such patients are referred to as being ‘difficult’. The role of Consultation Liaison Psychiatry should include supporting other health professionals because the ‘difficult’ patient affects their management, especially when psychological aspects like refusal of treatment, anxiety, depression or symptoms relating to personality are involved. This support will result in reduction of distress in both the patient and the caregivers. They concluded that a patient’s subjective well-being is a good indicator. The patient does not have to be symptom free, but how a patient feels indicates that the patient has psychologically adjusted to his or her condition.
Goldberg et al.\textsuperscript{19} found that hospitals which had designated medical-psychiatry (med-psych) units had better outcomes. Early recognition and prompt management were found to decrease the length of stay in admitted patients. They also speculated that this can greatly reduce costs. This setup can only function in institutions where resources are adequate.

Bourgeois et al.\textsuperscript{20} reviewed the diagnoses from all inpatient psychiatric consultations at an academic medical center at the University of California during the year 2001. The most frequent diagnoses were mood disorders (40.7\%), cognitive disorders (32.0\%) and substance use disorders (18.6\%). The findings were compared with results from previously done studies published over the past 27 years. Mood, cognitive and substance use disorders remain the main conditions encountered in Consultation Liaison Psychiatry.

The future of Consultation Liaison Psychiatry is looking brighter as many European countries have now recognized it as a sub-specialty. In South Africa Consultation-Liaison psychiatry is not listed as one of the sub-specialties in the Colleges of Medicine of South Africa, but the University of Cape Town offers a MPhil degree in Consultation Liaison Psychiatry\textsuperscript{2}.

The resources for Consultation Liaison Psychiatry differ from one country to another and from one hospital to another\textsuperscript{11}. Practice guidelines also differ significantly. The Academy of Psychosomatic Medicine (USA) has published guidelines for psychiatric consultation in the general medical setting. The guidelines are intended as a scope of practice and training of future Consultation Liaison specialists.\textsuperscript{21,22,23}

Consultation Liaison’s principles, from its humble beginnings in the period of Lipowski will remain an essential complementary service to all other disciplines of medicine.\textsuperscript{23}
The components of our roles remain facilitative, interpretative and consensus seeking. Our experience is far more useful in a multidisciplinary team as a mediator between the patient and the team rather than the prescriber of neuroleptics.\textsuperscript{24}

In conclusion, this study will seek to determine how Consultation Liaison Psychiatry in a rural South African setting with limited resources and facilities can be developed into a complementary service to other disciplines.
CHAPTER 3
METHODOLOGY

3.1. Study Design

This was a retrospective, quantitative study.

3.2. Study Setting

The study was conducted at Pietersburg Hospital, which is the tertiary referral Hospital of Limpopo Province.

3.3. Study Population

The study population included all patients admitted to the hospital and referred to Psychiatry during the period 1.1.2012 to 31.12. 2012

3.4. Sample and Sampling Method

Data were collected retrospectively from the confidential files of consultations done during the year 2012 (1.1.2012 – 31.12.2012) which are archived in the Department of Psychiatry. At the end of the liaison process these files are kept locked in a cabinet in the Department of Psychiatry. Additional medical information required was found in the general hospital files, using the patient hospital numbers which are on record. Files of 101 patients were retrieved.

3.5. Inclusion criteria

All available clinical files of patient referred to the Psychiatry Department during the study period were included in the study.
3.6. Exclusion criteria

No files were excluded

3.7. Data Collection

Data were collected from clinical records of assessments by registrars and medical officers working in the Department of Psychiatry in Pietersburg Hospital. Consultation Liaison files are archived in the department. Data not recorded in these files were obtained from the general hospital files. Data were collected using a data collection tool and then captured on an Excel spread sheet.

3.8. Data Analysis

The data collected were entered into a database using an Excel spread sheet and analyzed using Epi-Info. Descriptive statistics such as mean, standard deviation, frequencies and percentages were used to interpret data. Data were presented using tables and graphs.

3.9. Reliability and Validity of the study

The instrument used to collect data for this study was piloted to ensure validity and reliability. The piloted data was collected by two registrars in the department using the same data collection tool and the same records to check for consistency. This helped with inter-rater reliability. Since all records remain available, any researcher can reproduce the study. Interpretation of psychiatric symptoms is highly subjective, errors of assessment were minimized by the fact that consultation –liaison psychiatry is done by registrars in the department using the standardized DSM IV-TR diagnostic criteria and all cases are reviewed with the consultant.
3.10. Possible limitations and Bias of the study

Some records could not be found, therefore not reflecting the exact number of referrals.
Selection bias was minimized because all available Consultation Liaison records were used. Information bias may have occurred as some variables were missing from the records.

3.11. Ethical considerations

The study did not capture any names of patients to maintain confidentiality. Permission to conduct the research was obtained from the MEDUNSA Research and Ethics Committee, the Chief Executive Officer of Pietersburg Hospital and the Provincial Research Committee.
CHAPTER 4

RESULTS AND INTERPRETATION OF THE FINDINGS

4.1 Demographic profile of patients

4.1.1 Age Distribution  N = 101

One hundred and one (101) patient files were reviewed during the period of the study. Of these, 82% were 50 years and younger. The mean age was 36.6 years (range from 7-79 years).

Figure 1: Age distribution
4.1.2 Gender distribution  \( N = 101 \)

![Gender Distribution](image)

Figure 2: Gender Distribution

Figure 2 illustrates the gender distribution of the patients.
More than half (54%) the patients in this study were male and 46% were female.

4.1.3 Employment  \( N = 101 \)

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed</td>
<td>55</td>
<td>54.5</td>
</tr>
<tr>
<td>Employed</td>
<td>16</td>
<td>15.8</td>
</tr>
<tr>
<td>Pensioners/disability grant</td>
<td>10</td>
<td>9.9</td>
</tr>
<tr>
<td>Scholars</td>
<td>7</td>
<td>6.9</td>
</tr>
<tr>
<td>Self-employed</td>
<td>4</td>
<td>3.9</td>
</tr>
<tr>
<td>Unspecified</td>
<td>9</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>101</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

A large proportion (54%) of the patients was unemployed, 16% were employed and 4% were self-employed. In 9% of the files the employment status was not specified.
4.1.4 Route of admission

Table 2: Distribution of route of admission  N - 101

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>50</td>
<td>49.5</td>
</tr>
<tr>
<td>Peripheral Hospitals</td>
<td>32</td>
<td>31.7</td>
</tr>
<tr>
<td>Streets</td>
<td>4</td>
<td>4.0</td>
</tr>
<tr>
<td>Work</td>
<td>3</td>
<td>3.0</td>
</tr>
<tr>
<td>Jail</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Unspecified</td>
<td>11</td>
<td>10.9</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

Half of the patients in this study were admitted from home and 32% were from peripheral hospitals, For 11 % route was unspecified.
4.2 Referral of patients to psychiatric services

4.2.1 Referral by Departments

Table 3: Referrals by Department  N=101

<table>
<thead>
<tr>
<th>Department</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Medical/Female Medical</td>
<td>46</td>
<td>45.5</td>
</tr>
<tr>
<td>Surgical/Neurosurgical</td>
<td>27</td>
<td>26.7</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>19</td>
<td>18.8</td>
</tr>
<tr>
<td>Renal Unit</td>
<td>3</td>
<td>3.0</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>High Care</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>Paeds Oncology</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

The highest number of referrals came from medical wards, followed by the surgical and obstetrics and gynaecology wards.

4.2.2 Intervals between admission and referral

Table 4: Intervals between admission and referral N=101

<table>
<thead>
<tr>
<th>Interval</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same day referrals</td>
<td>20</td>
<td>19.8</td>
</tr>
<tr>
<td>Following day referrals</td>
<td>11</td>
<td>10.9</td>
</tr>
<tr>
<td>Within 14 days</td>
<td>62</td>
<td>61.3</td>
</tr>
<tr>
<td>After 2 weeks</td>
<td>8</td>
<td>7.9</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

Most patients were referred within 2 weeks of admission (61.3%), one third of the patients within 2 days.
4.2.3 Mode of referral

Table 5: Mode of referral N=101

<table>
<thead>
<tr>
<th>Mode of referral</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary consultation form</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Unspecified</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Telephonic consultation</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

Forty-seven percent (48/101) of the referrals were done by completion of interdisciplinary consultation forms, 52% (52/101) were unspecified and only telephonic consultation.

4.2.4 Diagnoses on referral

![Figure 3 Conditions at the point of referral](image)

Attempted suicide and parasuicide (from surgical and medical wards) were the most frequent diagnoses on referral, followed by medical delirium, pre-and postpartum delirium/psychosis and trauma (surgical and neurosurgical). Psychosis was the reason for referral in 9% of patients.
4.2.4 Previous psychiatric history

Table 6: Previous psychiatric history

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No previous psychiatric history</td>
<td>76</td>
<td>75.2</td>
</tr>
<tr>
<td>Previous psychiatric history</td>
<td>24</td>
<td>24.8</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

In 24.8 % it could be established that there was a history of previous psychiatric treatment.

4.2.5 Reasons for referral

Table 7: Reasons for referral

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confusion</td>
<td>32</td>
<td>31.7</td>
</tr>
<tr>
<td>Attempted suicide and Parasuicide</td>
<td>21</td>
<td>20.8</td>
</tr>
<tr>
<td>Abnormal behaviour post-partum</td>
<td>16</td>
<td>15.8</td>
</tr>
<tr>
<td>Psychosis</td>
<td>10</td>
<td>9.9</td>
</tr>
<tr>
<td>Psychosocial stressors, depression</td>
<td>8</td>
<td>8.0</td>
</tr>
<tr>
<td>Known MHCU</td>
<td>6</td>
<td>6.0</td>
</tr>
<tr>
<td>Aggressive and disorganized</td>
<td>4</td>
<td>4.0</td>
</tr>
<tr>
<td>Refusing treatment, fitness for surgery</td>
<td>3</td>
<td>3.0</td>
</tr>
<tr>
<td>Heroin Addiction</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

Thirty-two percent of patients were referred due to confusion, 21% with suicide Attempts, followed by post-partum abnormal behavior at 15.8%.
4.3. Findings on assessment.

4.3.1 Findings at first assessment

Table 8: Findings at first assessment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-operative</td>
<td>63</td>
<td>62.4</td>
</tr>
<tr>
<td>Unco-operative (conscious)</td>
<td>33</td>
<td>32.6</td>
</tr>
<tr>
<td>Sedated</td>
<td>5</td>
<td>5.0</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

Most patients (62.4) were found co-operative, 32.6 % were unco-operative and 5% were found sedated.
### 4.3.2 Psychiatric disorders diagnosed

Figure 4: Psychiatric disorders diagnosed

Delirium (33%) and psychosis (33%) were the most common disorders diagnosed.
### 4.3.3 Final assessment and underlying causes N 101

Table 9 Summary of final assessment

<table>
<thead>
<tr>
<th></th>
<th>N 101</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delirium</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delirium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epilepsy</td>
<td>33</td>
<td>32.7 %</td>
</tr>
<tr>
<td>TBI</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Medical (other than HIV)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Eclampsia</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HIV</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Surgical (sepsis)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Brain tumour</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stress Disorders</strong></td>
<td>12</td>
<td>11.7 %</td>
</tr>
<tr>
<td>Social problem</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Conversion disorders</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Personality and conflict</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PTSD (Rape, HIV)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mood Disorders</strong></td>
<td>10</td>
<td>9.9 %</td>
</tr>
<tr>
<td>Depression in substance abuse</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Adjustment to medical illness</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Bereavement</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Post-partum depression</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Substance Use Disorders</strong></td>
<td>7</td>
<td>7.0</td>
</tr>
<tr>
<td>Dependence (Opioids)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Dependence (Alcohol)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Poly-substance abuse, BPD</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>


This table illustrates the variety of conditions encountered during psychiatric Consultation liaison at Pietersburg hospital. In 18%, substances were a Contributing factor, Of the 21 attempted suicides,8 cases were suffering MDD, and the attempts were serious ( hanging,throat cutting).

<table>
<thead>
<tr>
<th>Psychotic Disorders</th>
<th>33</th>
<th>32.7 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychosis GMC (HIV 6)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Post-partum psychosis</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>SIPD</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>BMD</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Psychosis NOS</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Delusional D/O,</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Brief Psychotic Episode</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Major Depression with psychosis</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medico-Legal Assessments</th>
<th>2</th>
<th>2.0 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity to give consent</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No Psychiatric Diagnosis</th>
<th>4</th>
<th>4.0 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total substance abuse</th>
<th>N 18</th>
<th>18%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main diagnosis and co-morbidity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suicide and Parasuicide</th>
<th>N 21</th>
<th>20.8 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychotic Disorders</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Social problems</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Substance related</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>No mental illness</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
4.4 Management

4.4.1 Management after assessment

Table 10: Psychiatric management  N 62/101

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Psychiatric OPD Pietersburg</td>
<td>24</td>
<td>38.7 %</td>
</tr>
<tr>
<td>To referral or local hospital psychiatric services</td>
<td>14</td>
<td>22.5 %</td>
</tr>
<tr>
<td>To SW/Psychologist</td>
<td>11</td>
<td>17.7 %</td>
</tr>
<tr>
<td>To a psychiatric Unit</td>
<td>8</td>
<td>12.9 %</td>
</tr>
<tr>
<td>To Physician/Neurosurgeon</td>
<td>5</td>
<td>8.1 %</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

Of the 101 referred patients, 61.4 % were taken over by the psychiatric services. Of these, 38.7% were referred to the psychiatric outpatient department at Pietersburg Hospital, 22.5% to the local or referral hospital, 17.7 % to social workers/psychologist and 8.1% were found physically ill and referred back to the respective departments.
4.5. **Challenges faced**

This is a summary of the problems encountered in 2012 whilst practicing Consultation Liaison Psychiatry in Pietersburg Hospital

- The medical officers seemed to have little understanding of the difference between psychosis and delirium, and inadequate skills to manage delirium.
- There was an apparent lack of understanding as to how to manage epilepsy and its complications.
- Patients sometimes were so seriously ill that a psychiatric evaluation was not possible, and in one instance the patient was dying.
- Psychiatrists had to prescribe investigations, which identified medical conditions, when medical officer failed to do so.
- Treatable conditions were ignored once a patient was referred to the psychiatrist
- Medical/surgical/neurosurgical teams would no longer attend to the patient once referred to Psychiatry
- Nurses sometimes would take it upon themselves to call the psychiatric services for assistance since medical officers would not refer
- Medical staff was often not available for discussions
- Communication generally was very poor with few colleagues interested in what was or needed to happen with the patient
- Psychiatrists were faced with the ethical dilemma that a doctor wanted a primary psychiatric diagnosis to take a patient off renal dialysis
- Patients were in restraints and prescribed medication/sedation was not given
- There was constant pressure to take physically ill patients to a psychiatric hospital
- Patients were discharged by medical officers without approval by psychiatrist
CHAPTER 5

Discussion

This study was intended to analyze the profiles of inpatients referred to the psychiatric services in Pietersburg Hospital, and evaluate the challenges faced in the process. During the period of the study the Medical Department had no solid leadership with departmental heads coming and going for a number of years and medical officers often left on their own. This very likely contributed to some of the challenges the present study reveals.

The files of 101 patients seen during 2012 could be traced, some archived in the Department of Psychiatry and others retrieved from the filing section. The number is estimated to be below the actual referral rate since not all confidential files were returned to the department.

Sociodemographic data of patients

There were 45.5% female patients and 54.5% male patients. This is in contrast to the majority of previous studies where females had a high referral rate. This includes two other South African studies which were conducted in Gauteng Province.\textsuperscript{25,26} There are, however, a few that reported a higher male referral rate.\textsuperscript{27-25,30-32} No explanation for this is immediately evident.

Of the evaluated patients 55% were unemployed, which is in keeping with the high unemployment rate in Limpopo Province (22.2% in 2012 3\textsuperscript{rd} quarter)\textsuperscript{33}.

The age distribution indicates a predominance of younger patients with very few older patients referred. The average age was 36.5 years. Similar age ranges have been reported elsewhere.\textsuperscript{27,29,34,35} The average age at George Mukhari Hospital in Pretoria was reported at 40 years.\textsuperscript{25}
Most patients came from the central area of Limpopo Province (Capricorn), and as expected in a Tertiary Hospital a number of patients were referred for serious physical conditions or for specialized treatment from the peripheral Regional and District Hospitals. Only 4% (4/101) were picked up on the street and they were subsequently found to have a primary psychiatric diagnosis.

Pietersburg Hospital has a 24 hour psychiatric cover, and most psychiatric patients arriving at casualty in 2012 were referred on directly to a psychiatric institution/unit since Pietersburg Hospital was not designated for 72 hours observation according to the Mental Health Care Act No 17 of 2002.

Most patients in the study with no immediate primary psychiatric diagnosis were admitted by casualty doctors to respective wards and referred later for psychiatric evaluation, or admitted with a suspected physical condition by a psychiatric registrar for co-management with the respective disciplines.

**Mode of referral and Timing of referrals**

The request for referral usually would come on a prescribed form to the department, or it would be arranged by medical officers or the psychologist telephonically, and in some instances at the by Nursing staff.

In 30.7 % of patients the referral was made the same or the following day after admission. Other patients were referred between 3 –14 days, very few patients were referred after they had already been in hospital for a longer period, mostly patients with poly-trauma. All patients were assessed the same or the following day after referral.
**Distribution of referrals according to departments.**

The most frequent referrals came from the medical department (45.5%), the surgical department (26.7 %) and the obstetric/gynaecological section (18.8%). This is in alignment with some figures reported from other studies 1,16,24,28,32,36-39.

In the absence of many subspecialties in Pietersburg some conditions are counted with the main specialty. For example, Medicine includes Neurology which tends to have a high referral rate to psychiatry in other hospitals 40,41. This is explained by the fact that neurological disorders have high rates of behavioural problems, including psychiatric illnesses. Neurology does not have its own department in Pietersburg Hospital.

**Distribution of referrals according to the reasons for referral**

In 31.7 % the concrete reason for referral was given as ‘acute confusional state’ or ‘abnormal behaviour’ from all the departments. Referrals would most commonly be mono-syllabic with no details as to history or underlying condition.

Of the referred patients 23.8 % (24/101) had a previous psychiatric history. Few of those (6%) were identified by the medical officers as a mental health care user (MHCU), reflecting poor history taking. In other studies the previous history of psychiatric illnesses ranged between 17% and 45% 28-30,34,45,47.

On top of the list also were referrals for attempted suicide and parasuicides (20.8%). Attempted suicides were in some cases associated with a psychotic condition (e.g. throat cutting when instructed by voices, hanging due to auditory or visual hallucinations, or a major depressive illness with psychosis.
Distribution of referrals according to axis I diagnosis
(clinical disorders or other disorders that may be of clinical focus)

A psychotic disorder was diagnosed in 32.7 % (33/101) of the patients. Psychosis due to a general medical condition was diagnosed in 8.9 % (9/101) patients, 6 of those were due to HIV. Of the patients referred to the Psychiatry Department, 5.9% (6/101) had a brief psychotic episode with post-partum onset. This can be explained by the higher number of complicated deliveries in a tertiary hospital, which have a higher incidence of post-puerperal psychosis. A study by Robertson et al identified delivery complications as one of the variables associated with a severe post puerperal episode[48]. Those found to be suffering from SIPD (4.9%) would mostly be presenting for the first time and were admitted for medical investigation.

Next to psychosis delirium was the most common diagnosis in this study as described in many other studies[4,6,26,34,44,34,49,50]. Delirium due to a variety of factors was diagnosed in 32.7 % (Table 8) of patients in this study, with epilepsy leading the ‘confusional states’[26]. Medical officers appear to have problems treating epilepsy and its complications in the absence of a neurologist, and therefore the patients are still regularly referred to psychiatrists in Pietersburg Hospital. Alcohol withdrawal delirium in 4 cases was associated with trauma.

There were 18% (Table 8) of patients with significant contribution of substances to their condition, 5 of them suffering from a psychosis, others from alcohol withdrawal after trauma, and stress and behavioural problems due to poly-substance abuse[27,35,44]. Substance abusers with no associated physical or psychotic illnesses were counted at 7 %.
Stress disorders and depressive disorders were diagnosed in 21.6 % of patients and include the patients experiencing depression after a recent life event, due to substances or as a reaction to physical illness. They often come with somatic complaints and are referred during the process of investigations. These conditions were referred to Social Workers and Psychologists after psychiatric assessment. They tend to be admitted briefly and are channeled to the relevant therapists as outpatients after crisis intervention.

Findings at first assessment

During the first assessment 62.4 % of patients were found co-operative, with 32.6 % of patients uncooperative due to psychosis, substances or personality factors or in various states of agitation, restlessness and disorientation. Five percent were found drowsy from sedation or illness.

Outcome of consultations

Of the 101 referred patients 62 (61.4%) were taken over by psychiatric services for management, whereas the others were co-managed until no more psychiatric guidance was required. It would be the decision of the psychiatric liaison officer to refer the patients to a psychiatric facility. Only 8 (12.9%) of the patients were referred on to a nearby psychiatric unit. This is similar to findings reported by Hengeveld et al. (12,6%) 51.

After medical and therapeutic intervention by a psychiatrist, social worker and psychologist, many of the patients could be discharged. The majority of patients (38.7 %) would be referred for follow-up to the hospital’s psychiatric OPD or (22.5%) to the psychiatric services in their local or referral hospital. Referral back to other disciplines was found necessary for 5 patients after investigations by a psychiatrist established that they suffered from a physical condition. The other patients (17.7 %) stayed with the psychological and social services.
The biggest challenge was that medical officers abdicated their responsibility for the physical well-being of the patients, and the psychiatric registrar would find him/herself in the position that he/she would need to make clinical decisions, which sometimes were not accepted by the colleagues. This left the nursing staff and the patient in doubt as to who would ultimately be in charge of the patient. Once the patient has been seen, the same psychiatric consultant assumes responsibility for this patient or takes responsibility to hand over, until the patient is discharged or transferred. This helps to ensure that the patient does get the medication prescribed, provides support to the staff, enables better communication with the family, and patient and nurses know to whom to report if there are problems.
CHAPTER 6

6.1. Conclusion and recommendation

Findings of this research and compared studies indicate a significant rate of psychiatric referrals from the discipline of internal medicine. This is probably due to the number of chronic and severe illnesses admitted to the medical wards. Of the referred cases a significant number was taken over by the psychiatric services, this indicates that most of the referrals were appropriate.

Record keeping has to improve significantly to keep an eye on developments and evaluate the service periodically. This includes providing templates which should encourage more information on referral than ‘confusion’ or ‘abnormal behaviour’. The referring medical officer should elicit some information, summarize his findings and formulate a proper referral. The psychiatric consulting officer must file a summary of the report in the patient’s file without compromising confidentiality.

Inter-disciplinary meetings will be effective in facilitating communication, allowing for teaching basic psychiatric skills to those who have never engaged in mental health services, and in the end benefiting the physically and mentally ill patient.

Consultation Liaison Psychiatry is of such importance in the light of the gap of psyche and soma narrowing, that the need for training in this field is definitely supported by the researcher. Confidence to engage with other disciplines in a consulting capacity needs to be acquired and practiced under supervision.

Pietersburg Hospital has embarked on improving the stressful relationships between disciplines when caring for a psychiatric patient or a patient who shows behavioural or psychological distress, and this progress needs to be encouraged and monitored.
6.2. Limitations of the study

The limitation of this study was missing clinical information, because the initial clerking was not done with future research anticipated. This limitation can be remedied by replication of the study, as a prospective study. This thus sets grounds for a future prospective study.
REFERENCES


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8 Collins PY. Challenges to HIV prevention in psychiatric settings: perceptions of South African mental health care providers. Social science & Medicine 2006;63 979-990.


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14 Lipsitt DR. Psychiatry and the general hospital in the age of uncertainty. World Psychiatry 2003; 2:2-6


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45 Ku KH, Nguyen GHD, Ng YK. Consultation liaison psychiatry in Kwai Chung hospital. Hong Kong J of Psychiatry 1997;7:3-8.


Appendices

1. Data collection tool

2. Department of health  Limpopo province permission to conduct research

3. Medunsa  Research and Ethics Committee Clearance certificate
APPENDIX A: DATA COLLECTION TOOL

ID

A. DEMOGRAPHIC INFORMATION

Patient Initials  Age (years)

Gender  Male  Residence
Female

B. HOSPITAL DATA

Date of admission:  Brought by

Admitted to ward:  Admitted through

Diagnosis on admission:

Referred to psychiatrist on:  Referred by:

Mode of referral:

Phone
Form
Personal
Other
<table>
<thead>
<tr>
<th>Reason for referral</th>
</tr>
</thead>
</table>

**C. ASSESSMENT**

<table>
<thead>
<tr>
<th>First observation</th>
<th>History</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Psych sx: 

Physical sx: 

Previous psych history: 

Vitals on admission:  

<table>
<thead>
<tr>
<th>BP</th>
<th>Temp</th>
<th>pulse</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lab Results:  

<table>
<thead>
<tr>
<th>Normal</th>
<th>Abnormal</th>
</tr>
</thead>
</table>

HIV status:  

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Point of conflict during referral

<table>
<thead>
<tr>
<th>Final diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis I</td>
</tr>
<tr>
<td>Axis II</td>
</tr>
<tr>
<td>Axis III</td>
</tr>
</tbody>
</table>

**Outcome of consultation**

<table>
<thead>
<tr>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharged to Psych OPD</td>
</tr>
<tr>
<td>Transfer to Psych Unit</td>
</tr>
<tr>
<td>Refer to psychology</td>
</tr>
<tr>
<td>Refer to Social worker</td>
</tr>
<tr>
<td>Follow up at peripheral Hosp</td>
</tr>
<tr>
<td>Refer back to referring discipline</td>
</tr>
</tbody>
</table>
Enquiries: Latif Shamila

Mzimba B
University of Limpopo
Sovenga
0727

Greetings,

Analysis of consultation liaison psychiatry at Pietersburg Hospital in Limpopo Province, South Africa.

The above matter refers.
1. Permission to conduct the above mentioned study is hereby granted.
2. Kindly be informed that:-
   - Further arrangement should be made with the targeted institutions.
   - In the course of your study there should be no action that disrupts the services.
   - After completion of the study, a copy should be submitted to the Department to serve as a resource.
   - The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.

Your cooperation will be highly appreciated.

Head of Department

Date

18 College Street, Polokwane, 0700, Private Bag x2802, POLOKWANE, 0700
Tel: (015) 293 6000, Fax: (015) 293 6112 Website: http://www.limpopo.gov.za

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UNIVERSITY OF LIMPOPO
Medunsa Campus

MEDUNSA RESEARCH & ETHICS COMMITTEE

CLEARANCE CERTIFICATE

MEETING: 09/2013

PROJECT NUMBER: MREC/M/310/2013: PG

PROJECT:

Title: Analysis of consultation liaison psychiatry at Pietersburg hospital in Limpopo province, South Africa

Researcher: Dr B Mzimba
Supervisor: Prof S Ratsemane
Co-supervisor: E Weiss (Polokwane)
Hospital Superintendent: Dr TM Pinkoane (Pietersburg Hospital)
Department: Psychiatry, Clinical Psychology & Psychology
School: Medicine
Degree: MMed Psychiatry

DECISION OF THE COMMITTEE:

MREC approved the project.

DATE: 07 November 2013

PROF GA OGUNBANJO
CHAIRPERSON MREC

The Medunsa Research Ethics Committee (MREC) for Health Research is registered with the US Department of Health and Human Services as an International Organisation (IORG0004319), as an Institutional Review Board (IRB00005122), and functions under a Federal Wide Assurance (FWA00000419).

Expiry date: 11 October 2016.

Note:

i) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.

ii) The budget for the research will be considered separately from the protocol. PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.