FIRST-EPISODE PSYCHOSIS AT
DR GEORGE MUKHARI HOSPITAL
FROM JANUARY 2010 TO JANUARY 2011

by

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RESEARCH DISSERTATION
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(Medunsa Campus)

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2012
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DECLARATION

I, Hina Himatlal Jogi, hereby declare that the work on which this dissertation is based, is original (except where acknowledgements indicate otherwise) and that neither the whole work nor part of it has been, is being, or shall be submitted for another degree at this or any other university, institution for tertiary education or examining body.

H.H Jogi
19413669
25 May 2012
DEDICATION

To my parents and siblings, husband Viresh and baby Diya.
ACKNOWLEDGEMENTS

I would like to acknowledge the support and encouragement received from the supervisors - Prof. S. T. Rataemane and Dr. T Ballyram for your valuable contributions and assistance.

To my husband Viresh, our darling Diya and the whole family, thanks for all the sacrifices made throughout my studies.

A special thanks to the staff of the records department at DGMH psychiatry unit who assisted me in the data collection.

The contribution made by my fellow colleagues is highly appreciated.

To the Almighty, thanks for all the blessings.
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LIST OF ACRONYMS

FEP: First episode psychosis
DUP: Duration of untreated psychosis
DGMH: Dr George Mukhari Hospital
GMC General medical conditions
HT Hypertension
HIV: Human Immunodeficiency virus
OPD: Outpatient department
Pt: Patient/s
MEDUNSA: Medical University of Southern Africa (University of Limpopo)
MREC: Medunsa Research and Ethics Committee
COMT: Cathecol-O-methyl transferase
ABSTRACT

**Background:** The epidemiology of first episode psychosis is poorly understood in South Africa because of the paucity of systemic studies, yet it constitutes the fundamental basis for understanding the disorder and the foundations on which clinical, biological, therapeutic, and long-term outcomes are built.

**Objectives:** The objectives were to determine the incidence of first episode psychosis at Dr George Mukhari Hospital- psychiatry unit from January 2010 to January 2011, to assess the clinical profile of patients with a first episode psychosis, to determine the relationship between first episode psychosis and duration of untreated psychosis and to describe the management strategies utilised.

**Methods:** The study was a retrospective, descriptive study based on the review of records of patients with first episode psychosis seen at the Dr George Mukhari- Psychiatry unit from January 2010 to January 2011. Data concerning socio-demographic parameters of the patients as well as psychiatric data had been collected using a data collection sheet.

**Results:** Data was extracted and analysed from a total of 85 patient records. The majority of patients were in the age group of 25 to 34 years of age. The vast majority of patients were black (98%) and 81% were unemployed. More than half of the sample were female (59%) and 65% were single. 29% of patients with a duration of untreated psychosis of more than 14 weeks were in the age group of 18 to 24 years of age. Ethnicity and gender difference were not associated with the duration of untreated psychosis, but being single, unemployed and having a low school education contributed to a long duration of untreated psychosis. The most common reasons for referral were positive symptoms of psychosis (87%) and the primary source of referral was the family in 54% of cases. More than half (78%) of patients had been ill for less than one year, and presented with a longer duration of untreated psychosis. The substance most used was cannabis (47%), followed by alcohol (38%), and this contributed to the patients having a prolonged duration of untreated psychosis. The 44 patients with a co-existing medical condition had a shorter duration of untreated psychosis. 21% of patients had a family history of mental illness and a duration of untreated psychosis of less than 14 weeks. Of the 85 patients studied, 29% had a diagnosis of psychosis due to general medical condition, 20% had a diagnosis of schizophrenia, and 18% had been diagnosed with a substance-induced psychosis. Sixty-two of the 85 patients with a first...
episode psychosis had not received psychosocial intervention as a form of management. The incidence of first episode psychosis at the Dr George Mukhari hospital-psychiatry unit was 3.5%, of which 50 patients were female and 35 patients were male.

**Conclusion:** There is a high prevalence of patients with first episode psychosis in our setting, particularly with a diagnosis of psychosis due to a general medical condition. Improved treatments should include bio-psychosocial strategies, focusing on comprehensive screening of these patients and identifying risk factors. In addition, there is a need of early intervention services, use of information campaigns to increase public awareness, assertive outreach programmes, and optimisation of health care systems as a strategy to reduce the duration of untreated psychosis and improve the outcomes of these patients.
CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

First episode psychosis is the first time a person experiences a psychotic symptom or episode. Psychotic disorders have psychotic symptoms as their defining feature. Studies around the world have revealed that patients with first episode psychosis experience an alarming delay between the onset of first psychotic symptoms and the initiation of treatment; hence the term duration of untreated psychosis. The duration of untreated psychosis averages around one to two years, and a long duration of untreated psychosis is associated with a poor outcome (Nordentoft et al, 2009). During this period, brain functions may continue to deteriorate and social networks can be irreversibly damaged. At present, a number of centres around the world have focused on early identification and intervention in people with psychotic disorders. The implication is that close attention needs to be given to patients during the time when vulnerability to psychosis is first expressed, in the hope that intervention at that point may prevent irreversible neurobiological and social changes (Alitchison and Robin, 1999).

1.2 PROBLEM STATEMENT AND SIGNIFICANCE OF THE STUDY

Patients presenting with a first episode psychosis, present an ongoing challenge in terms of management and rehabilitation at Dr George Mukhari Hospital. There is relative lack of information about psychotic disorders in the developing world, therefore understanding the clinical profile of patients in the developing world can help optimise the development of local services. Furthermore studying the population will allow the researcher to study the illness, relatively free of confounding factors, but also with the renewed hope that the outcome of illness can be positively influenced by early intervention. Understanding the profile of patients with a first episode psychosis is crucial to both elucidating the etiological process and improving treatment strategies and service delivery.

1.3 RESEARCH GOAL

The study will determine how the clinical profile and socio-demographics of patients with first episode psychosis seen at Dr George Mukhari hospital correlates with the duration of untreated psychosis, and will determine the factors contributing to the duration of untreated
psychosis; and determine the incidence of first episode psychosis and management strategies utilised for these patients.

1.4 RESEARCH QUESTION

To investigate first episode psychosis at Dr George Mukhari Hospital from January 2010 to January 2011?

1.5 OBJECTIVES OF THE STUDY

i. To determine the incidence of first episode psychosis at Dr George Mukhari Hospital.

ii. To describe the clinical profiles of patients with first episode psychosis and examine how the socio-demographic and clinical profiles correlate with the duration of untreated psychosis, in order to ilicit the factors contributing to the duration of untreated psychosis.

iii. To identify management strategies utilised for these patients.

1.6 COMPONENTS OF THE DISSERTATION

Chapter 2 contains a review of literature. Chapter 3 contains the description of the methodology, followed by chapter 4 that presents the results of the study, and the findings of the study are discussed in chapter 5. The dissertation ends with recommendations and a conclusion.
CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Psychotic disorders are broadly divided into functional disorders and psychotic disorders due to a general medical condition. The two principal functional disorders are schizophrenia and the bipolar disorders. For most, the illness persists throughout life, characterised by a pattern of relapses and remissions. The ultimate causes are unknown and are probably multi-factorial involving an interaction of genetic and environmental factors. This can be effectively treated with a range of pharmacological and psychosocial interventions (Baumann, 2007).

2.2 EPIDEMIOLOGY

The epidemiology of first-episode psychosis is poorly understood because of the paucity of systematic studies, yet it constitutes the fundamental basis for understanding the disorder and the foundations on which clinical, biological, therapeutic, and long-term outcomes are built (Reay et al, 2010).

Reay et al (2010) investigated the incidence and range of diagnostic groups in patients with first-episode psychosis (FEP) in a defined geographical area. An observational database was set up on all patients aged 16 years and over presenting with FEP living in a country in Northern England between 1998 and 2005. The incidence of all FEP was 30.95/100000. The largest diagnostic groups were psychotic depression (19%) and acute and transient psychotic disorders (19%). Fifty-four per cent of patients were aged 36 years and over. Patients with schizophrenia spectrum disorder only accounted for 55% of cases. This clinical database revealed marked diversity in age and diagnostic groups in FEP with implications for services and guidelines. These common presentations of psychoses are grossly under researched, and no treatment guidelines currently exist for them.

A study done by Menezes et al (2008) in Brazil where little is known about the incidence of first-episode psychosis in urban centres of low or middle-income countries. A prospective survey of first-episode psychosis among residents aged 18-64 years in a defined area of São Paulo, over a 30-month period was done. There were 367 first-episode cases identified (51% women), and almost 40% fulfilled criteria for schizophrenia or schizophreniform disorder.
The incidence rate for any psychosis was 15.8/100 000 person-years at risk. Incidence of non-affective psychoses was higher among younger males. Incidence of psychosis in São Paulo was lower than expected for a large metropolis.

In a descriptive study by Paruk et al (2009) which looked at adolescents with psychotic symptoms who were admitted to a psychiatry institution in Durban, Kwazulu- Natal, the age range was 13 -18 years. Of the patients admitted, 80% were male, 37% reported a positive family history of mental illness, 50% smoked nicotine, and 61% reported cannabis abuse. The most common diagnosis was schizophrenia (30%) and schizophreniform disorder (27%). Sixty (86%) of the patients were initiated on a second-generation antipsychotic de novo. The average length of stay in hospital was 27.8 days. Of these patients, 40% defaulted follow-up treatment after discharge.

A study by Mashaphu and Mkhize (2007) done over six months showed estimates of new onset psychosis in patients with HIV spectrum illness ranging between 0.2%-15% and this increases as the disease progressed. The high prevalence rate suggested a possible aetiological association between HIV infection and FEP. The aetiological link is idiopathic.

2.3 THE SIGNIFICANCE OF DURATION OF UNTREATED PSYCHOSIS (DUP)

A study by Thomas and Nandha (2009) reported the clinical and social factors associated with a DUP of less than 12 weeks and more than 12 weeks. The DUP median was reported as 15 weeks. The median of 14 weeks represents a more meaningful central tendency in this case. By its nature, a DUP is difficult to calculate as it relies on the respondent’s memory and can only ever be a best estimate retrospectively. A short DUP of less than 12 weeks was associated with an acute presentation of psychosis and recognition of the predictors that prolong DUP could have an impact on reducing DUP. A long DUP of more than 12 weeks was associated with an insidious onset of psychosis, co-morbid substance misuse and less family support. The long DUP may have a negative impact on the long-term prognosis of these patients.

Recently, Oosthuizen et al (2008) reported that the duration of untreated psychosis was a significant predictor of outcome in FEP in South Africa. There is an assumption that in the developing world many individuals with mental health problems consult traditional healers, which may delay access to mainstream health services.
In a study by Larsen et al (1996), the delay in effective treatment of the 26% of the 253 first-episode patients was 1 year. The study reported that those patients taking longer than one year to access service showed a three-fold increase in relapse rate over the following 2 years compared with those with a briefer duration of untreated psychosis. Untreated psychosis emerged as the strongest predictor of relapse, irrespective of the use of medication.

Early intervention in first-episode psychosis has gained increasing attention during the last decade. Duration of untreated psychosis is the time from the manifestation of the first psychotic symptom to the initiation of adequate treatment. In a review by Larsen et al (2009) the duration of untreated psychosis was reported to be long, with a mean of around 1–2 years and a median of about 6 months, and it is suggested that duration of untreated psychosis is a prognostic factor that can be influenced by changes in the organization of the mental health services. A number of studies found a significant association between long duration of untreated psychosis and poorer outcome, but some do not replicate this finding. A number of factors could account for the prolonged duration of untreated psychosis:

- Patients and families may deny illness and need for treatment because of feared stigmatisation.
- Delay in referral, as the health-care system lacked the ability to recognize psychosis at primary care.
- Primary care (general practitioners) might have poor access to specialist care, with no rapid evaluation by psychiatrists.

It has been hypothesized that untreated psychosis has a biological toxic effect, meaning that people with a longer duration of untreated psychosis have a poorer outcome of illness due to deterioration of brain function. Factors that contribute to poor outcome in patients with a long DUP include stigma, homelessness, crime, violence, social isolation, seclusion, social estrangement, and low self-esteem (Nordentoft et al, 2009).

2.4 EARLY INTERVENTION

Birchwood, Todd, and Jackson (1998) pointed out that the majority of psychotic patients experience social, psychological, and biological deterioration during the first 5 years of the illness. This is referred to as the critical period and suggests that the early phase of psychosis
is both formative and predictive of a long-term outcome (Menezes et al, 2008). Therefore, to save on hospital resources, it is beneficial to prevent early deterioration and use the hospital resources to care for patients with established psychosis. Putting resources into intensive treatment may lead not only to more rapid remission of psychosis, but also to better long term outcome, thus lowering the long term cost. The possible benefits of such early treatment include:

- Early recovery
- Less disruption to social and occupational life
- Better long-term outcome
- Decreased hospitalisation

2.5 SUBSTANCE ABUSE

Brink et al (2003) at Stikland Hospital in Stellenbosch reported high co morbidity between substance abuse and first-episode psychosis (27%), although this needs to be seen against the background of a generally high level of substance abuse in South Africa. Subjects who abused substances presented with first-episode psychosis at a younger age. Cannabis was most commonly chosen as the substance of abuse and males were more likely to abuse substances compared with females.

According to the study by Malla and Payne (2005), alcohol and cannabis appeared to be the most commonly abused drugs and substance abuse predated the onset of psychotic symptoms. This was especially the case with cannabis. They also found that adolescent onset psychosis had a consistency of diagnosis through adulthood for both schizophrenia and affective psychosis and a low consistency for schizoaffective psychosis. A self- report of psychotic symptoms at age 11 was highly predictive of schizophreniform psychosis in adulthood, and this study concluded that adolescents with schizophrenia or schizoaffective psychosis compared to affective psychosis had an increased rate of poor global outcomes, lack of social contacts, disability pensions, and unemployment.

Degenhardt et al (2003) concluded that cannabis might precipitate disorders in persons who are vulnerable to developing psychosis and worsen the disorder among those who already had
Men with first episode psychosis were more likely than women to have used heroin and three times more likely to use ecstasy or hallucinogens during their life. There was also an increase use of cocaine in men. Men and women did not differ in amphetamine or cannabis use according to (Barnett et al, 2007).

The high prevalence of substance use in people with first episode psychosis has important implications, as substance misuse in people with a psychotic disorder is associated with non-adherence to treatment and poorer outcomes (Weiss et al, 2002). A reduction in co-morbid substance use is associated with a reduction in subsequent admissions and psychotic symptoms (Sorbara et al, 2003).

2.6 BIOPSYCHOSOCIAL MANAGEMENT

An integrated approach to the management of first episode psychosis should include both pharmacological and psychosocial elements. There is growing evidence that supports the use of second-generation antipsychotics over first generation antipsychotics. While treatment response is similar, the second-generation antipsychotics have advantages in terms of remission and discontinuation. The second generation have fewer extrapyramidal side effects and less likely to cause hyperprolactinaemia (except for risperidone and amisulpiride). Body weight gain is however greater with most second-generation antipsychotics, particularly olanzapine (Emsley, 2009).

The following psychological interventions are recommended in the clinical guidelines for first episode psychosis: cognitive behavioural therapy, family interventions and compliance therapy. In addition, there is an increasing evidence for the use of cognitive remediation to address the cognitive impairments of patients with psychosis (Penn et al, 2005).

Another psychosocial intervention includes vocational rehabilitation for patients that are unemployed, since up to 40% of people with first episode psychosis are unemployed even in the presence of specialized mental health services. Behavioural weight management has also been recommended since one of the side effects of the atypical antipsychotics is weight gain. Adherence to treatment is essential because non-adherence is associated with poor outcomes such as reduced self esteem, reduced quality of life and physical health problems (Killackey, 2009).
2.7 CONCLUSION

Understanding the profile of patients with first episode psychosis can help optimise the development of local services (Mbewe et al, 2006). Furthermore, characterising the differences in the epidemiology of psychosis between populations may help generate factors that could influence its cause and course. Patients with first episode psychosis are a vulnerable group of people that require intensive and specialised management (Paruk et al, 2009). Better understanding of the many complexities in patients with first episode psychosis will translate into enhanced treatment outcomes.
CHAPTER 3

METHODOLOGY

3.1 STUDY DESIGN

This is a retrospective, descriptive study based on the review of medical records of patients with first episode psychosis from January 2010 to January 2011. This design is appropriate to determine the incidence of first episode psychosis and to describe the variables associated with the duration of untreated psychosis. A data collection form that depicts patient socio-demographic and psychiatric information was used as the research tool.

3.2 DESCRIPTION OF THE SITE OF THE STUDY

The study was conducted at the Dr George Mukhari Hospital psychiatry unit. This is a tertiary health care facility that provides specialist psychiatric services.

3.3 STUDY POPULATION

3.3.1 Study sample

The study sample included all patients presenting with first episode psychosis at Dr George Mukhari Hospital-psychiatry unit, either as inpatients or as outpatients within the period of January 2010 to January 2011.

3.3.2 Selection Criteria

During the selection process, the following criteria were adhered to:

(i) Subjects were men and women aged 18-70 years.

(ii) Subjects diagnosed with a psychotic illness according to the DSM- IV- TR.

(iii) Patients had to be seen at the Dr George Mukhari-psychiatry unit between January 2010 and January 2011.

(iv) The patients must have received treatment at Dr. George Mukhari-psychiatry unit.
(v) Patients without a recognised psychotic disorder according to the DSM-IV-TR and those patients below 18 years of age were excluded.

3.4 DATA COLLECTION

The Dr. George Mukhari-psychiatric unit patient register was used to identify all the files of the patients with first episode psychosis treated at the unit during the study period. Once the files of the patients were retrieved, the selection criteria above were applied, and the relevant data was extracted from the files and recorded on the data collection form (Appendix A), which compromised the following two sections:

(i) Section 1: Socio-demographic data such as age, gender, religion, occupational and marital history, etc.

(ii) Section 2: Psychiatry data such as family history of mental illness, diagnosis, duration of untreated psychosis, treatment, etc.

3.5 DATA CAPTURING AND ANALYSIS

Data was captured in a MS-Excel. A quantitative analysis of the data was performed by using results obtained from the data collection chart and analysed in consultation with a biostatistician. Data capturing was verified and validation checks was performed. All statistical analyses were performed on SAS, Release 9.2, running under Microsoft Windows and p values ≤ 0.05 were considered significant. Continuous variables was summarised by mean, median, standard deviation, minimum and maximum values. Categorical variables was summarised by frequency counts and percentages, 95% confidence intervals were calculated for the mean value and Chi- squared tests was used for the comparison of subgroups.

3.6 RELIABILITY

Information in the patients file were assumed to be as accurate and detailed as possible. The diagnosis that appeared in the patients files were based on the DSM IV TR criteria; hence, this study was expected to be reliable. Patient’s files were kept safely and access to them is restricted and regulated. If the study were reconducted after the period using the same subjects under the same condition in the same institution the results would be similar.
3.7 VALIDITY

This was a retrospective study, therefore all the necessary data was obtained from the patients file. The diagnoses of the patients were based on the DSM-IV-TR criteria and were always confirmed under a supervision of a psychiatrist.

3.8 BIAS

There was no selection bias in this study because all patients seen at Dr George Mukhari psychiatry unit from the period January 2010 to January 2011 were included. Detection bias was minimal due to the comprehensive method of arriving at the diagnosis. The results of this study could have been influenced by recall bias because the information recorded in the patients file had been obtained by direct history taking from the patients.

3.6 ETHICAL CONSIDERATIONS

(i) Ethical clearance was requested and obtained from the Research, Ethics, and Publication Committee of the Faculty of Medicine, University of Limpopo (Medunsa Campus) prior to conducting the study.

(ii) Permission to access patients’ records was obtained from the superintendent of DGMH.

(iii) The principle of anonymity and confidentiality was upheld at all times; hence, no identifying details of patients were recorded in the data collection tool, but the file numbers were used for checking purposes. All study materials were available only to the study team. Anonymity and confidentiality were maintained by coding the records of data collected and any discussions about the data remained confidential and only among the study team members.
CHAPTER 4

RESULTS

4.1 THE WHOLE STUDY POPULATION (N=85)

The study was conducted using data from patients treated for a first episode psychosis at Dr George Mukhari Hospital-psychiatry unit within the period of January 2010 to January 2011. From 85 hospital patient records, the following data was extracted and analysed and they are described below.

4.1.1 Socio-demographic variables

Table I: Socio-demographic variables

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 24</td>
<td>21</td>
<td>24.7%</td>
</tr>
<tr>
<td>25 - 34</td>
<td>23</td>
<td>27.1%</td>
</tr>
<tr>
<td>35 - 44</td>
<td>13</td>
<td>15.3%</td>
</tr>
<tr>
<td>45 - 54</td>
<td>16</td>
<td>18.8%</td>
</tr>
<tr>
<td>&gt;55</td>
<td>12</td>
<td>14.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
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</thead>
<tbody>
<tr>
<td>Female</td>
<td>50</td>
<td>58.8%</td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>41.2%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
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<tbody>
<tr>
<td>African</td>
<td>83</td>
<td>97.6%</td>
</tr>
<tr>
<td>White</td>
<td>2</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital status</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Living with partner</td>
<td>7</td>
<td>8.2%</td>
</tr>
<tr>
<td>Married</td>
<td>17</td>
<td>20.0%</td>
</tr>
<tr>
<td>Never married</td>
<td>55</td>
<td>64.7%</td>
</tr>
</tbody>
</table>
The sample included patients in the age range of 18 to 55 years and older. The majority of the patients were in the age group of 25 to 34 years of age. From the table it appeared that majority of patients were Black African (98%), and 59% of the sample were female as compared to males. Majority of the patients were single and more than half of the patients were unemployed (81%). Forty one percent of the patient population had a high school education, 22% had a primary education, 14% had a tertiary education, and the remainder 22% had no education. Majority of the patients belonged to the Christian religion of which 25% belonged to the Zion Christ church.

### 4.1.2 Reason for referral

**Figure 1: Reason for referral**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Separated</td>
<td>1</td>
<td>1.2%</td>
</tr>
<tr>
<td>Widowed</td>
<td>5</td>
<td>5.9%</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>16</td>
<td>18.8%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>69</td>
<td>81.2%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>19</td>
<td>22.3%</td>
</tr>
<tr>
<td>Primary</td>
<td>19</td>
<td>22.3%</td>
</tr>
<tr>
<td>Secondary</td>
<td>35</td>
<td>41.2%</td>
</tr>
<tr>
<td>Tertiary</td>
<td>12</td>
<td>14.2%</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td>82</td>
<td>100%</td>
</tr>
<tr>
<td>*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*3 missing values
Note: Patients could have presented with one or more change.

Eighty-seven of the patients who presented with a first episode psychosis had a change in perception, followed by a change in behaviour, and 79% had a change in thinking form. The most minimum change in reason for referral was the mood represented by only 28% of the sample population.

4.1.3 Source of referral

Figure 2: Source of referral
The source of referral for 49% of patients was the family. Of the remaining sample, 22% of patients were referred by the primary health care / local clinic, police brought in 12.9% of patients, with the minority of the sample referred by self or a general practitioner.

4.1.4 Age of onset of mental illness

Figure 3: Age of onset of mental illness

*Data regarding age of onset mental illness was missing from one data collection sheet

Figure 3 shows that 31% of the patients presenting with a first episode psychosis were between 18 to 24 years of age, and 25% of the patients who presented with a first episode psychosis were in the range of 25 to 34 years of age. Of note is that only 13% of patients became ill after the age of 55 years.

4.1.5 Duration of onset of mental illness

Figure 4: Duration of onset of mental illness
Data regarding the duration of onset of mental illness was missing from one data collection sheet.

Figure 4 revealed more than half of the study population had been ill for less than one year. Only 9% were ill for more than ten years. A quarter of the patients were ill for one to five years. While only 6% of the sample population were ill for a duration of five to ten years.

4.1.6 Duration of untreated psychosis

**Figure 5: Duration of untreated psychosis**

Figure 5 demonstrated that more than half the sample had been ill for more than 14 weeks.
4.1.7 History of substance abuse

**Figure 6: History of substance abuse**

![Bar chart showing the percentage of patients abusing alcohol, cannabis, and other substances. Cannabis was the most abused, followed by alcohol, and then other substances.]

Cannabis was the substance mostly abused by this sample population; and alcohol was the second substance abused by 38% of the sample population. The remaining 15% of patients engaged in abusing tobacco, heroin, and cocaine.

4.1.8 Medical condition

**Figure 7: Medical conditions**

![Pie chart showing the percentage of patients with medical conditions. The majority have no medical conditions, with a smaller percentage having medical conditions.]

Cannabis was the substance mostly abused by this sample population; and alcohol was the second substance abused by 38% of the sample population. The remaining 15% of patients engaged in abusing tobacco, heroin, and cocaine.
Figure 7 demonstrated that 51% of patients with a first episode psychosis had a general medical condition, of which 22% had HIV, 20% had hypertension, and 17% had epilepsy.

4.1.9 Family history of mental illness

Figure 8: Family history of mental illness

*Data from two data collection forms were missing.

More than half of the study population had no family history of one or another mental illness. Of the 85 patients, only 21 patients were found to have a family history of mental illness.

4.1.10 Diagnosis

Figure 9: Diagnosis
Figure 9 depicted that patients who had presented with a first episode psychosis, the most commonest diagnosis was psychosis due to general medical condition/ head injury, 20% of the study population had a diagnosis of schizophrenia followed by 18% of the population diagnosed with substance induce psychotic disorder. 14% of the population had a diagnosis of mood disorder, 12% of the study sample had a diagnosis of psychosis not otherwise specified. The remaining 2% of the patients were diagnosed with schizophreniform disorder, schizoaffective disorder and brief psychotic disorder. There were no patients diagnosed with delusional disorder.

4.1.11 Interventions

Figure 10: Interventions
Of the 85 patients who had presented with a first episode psychosis, all the 85 patients had received medication as a form of treatment; only 23 patients of the study sample had received both medications and psychosocial interventions.

4.2 DURATION OF UNTREATED PSYCHOSIS

During the one-year period, from the 85 patients that were studied, 44 patients had a duration of untreated psychosis for more than 14 weeks and 41 patients had a duration of untreated psychosis for less than 14 weeks.

4.2.1 Socio-demographic variables in patients with a duration of untreated psychosis for more than 14 weeks and less than 14 weeks.

Table II: Socio-demographic variables in patients with a duration of untreated psychosis for more than 14 weeks and less than 14 weeks.

Table 11: Socio-demographic data

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*3 missing values

Thirty two percent of patients were in the age group of 25 to 34 years of age and presented with a duration of untreated psychosis of less than 14 weeks compared to the 30 % who were in the younger age group of 18 to 24 years of age with a duration of untreated psychosis of more than 14 weeks. Females predominated in both categories of duration of untreated psychosis, 98 % were black in both categories of duration of untreated psychosis. The patients with a duration of untreated psychosis of more than 14 weeks were mostly single, predominantly 91% were unemployed, 37% had a secondary education, and 43% belonged to the Christian religion. As compared to those patients with a duration of untreated psychosis
for less than 14 weeks, 63% were single, 29% employed 44% had a secondary education and 39% belonged to the Christian faith.

4.2. Patients with a duration of untreated psychosis and reason for referral

**Figure 11: Patients with a duration of untreated psychosis and reason for referral**

Note: Patients could have presented with one or more change

Only 84% of the patients with a duration of untreated psychosis of more than 14 weeks had a change in behaviour on presentation compared to 88% of the majority of patients with a duration of untreated psychosis of less than 14 weeks who presented with a change in behaviour. Ninety percent of patients with a duration of untreated psychosis of less than 14 weeks had a change in thinking form as compared to the only 68% of patients with a duration of untreated psychosis of more than 14 weeks with a change in thinking. Ninety three percent of the sample population with a duration of untreated psychosis of less than 14 weeks had a change in perception, whilst only 82% presented with a change in perception in the sample population of those patients with a duration of untreated psychosis of more than 14 weeks.

22% of patients with presented with change in mood in both categories of less than and more than 14 weeks of duration of untreated psychosis.

4.2.3 Patients with a duration of untreated psychosis and source of referral

**Figure 12: Patients with a duration of untreated psychosis and source of referral**
Compared to the 54% of patients with a duration of untreated psychosis of less than 14 weeks who were referred by family members, only 46% of these patients with a duration of untreated psychosis of more than 14 weeks were referred by family members. Fifteen percent of patients with a duration of untreated psychosis of less than 14 weeks were referred by a general practitioner as compared to the only 2% of the patients referred by a general practitioner with a duration of untreated psychosis of more than 14 weeks. Only 17% of patients with a duration of untreated psychosis of less than 14 weeks were referred by a primary health care system or local clinic, and 27% of the patients with a duration of untreated psychosis of more than 14 weeks had been referred by a primary health care system or local clinic. Patients with a duration of untreated psychosis of less than 14 weeks and referred by the police were represented by 16% of the sample population and only 11% of the sample population with a duration of untreated psychosis of more than 14 weeks were referred by the police. Sixteen percent of the patients with a duration of untreated psychosis of more than 14 weeks had referred themselves, whilst only 7% of patients with a duration of untreated psychosis of less than 14 weeks had been a self-referral.

2.4 Age of onset of mental illness and duration of untreated psychosis

Figure 13: Age of onset of mental illness and duration of untreated psychosis
*Data regarding age of mental illness was missing from one data collection sheet*

Among those patients with a duration of untreated psychosis of more than 14 weeks, majority of the population under study were in the age group of 18 to 24 years, 27% of patients were in the same age group but had a duration of untreated psychosis of less than 14 weeks. Of the patients with a duration of untreated psychosis of less than 14 weeks, most patients were in the age group of 25 to 34 years of age, compared to 18% of the sample population with a duration of untreated psychosis of more than 14 weeks. Fourteen percent of patients with a duration of untreated psychosis of more than 14 weeks were in the age group of 55 years and above. 17% of patients with a duration of untreated psychosis of less than 14 weeks were found to be ill in the age group of 45 to 54 years of age. Only 10% of patients with a duration of untreated psychosis of less than 14 weeks had been found to be ill in the age group of 55 years and above.

4.2.5 Duration of mental illness and duration of untreated psychosis

**Figure 14: Duration of mental illness and duration of untreated psychosis**
Seventy eight percent of patients with a duration of untreated psychosis of less than 14 weeks had been ill for less than one year, and only 41% of the sample population with a duration of untreated psychosis for more than 14 weeks had been ill for less than one year. 39% of patients with a duration of untreated psychosis for more than 14 weeks had been ill for 1 to 5 years, whilst only 10% of patients with a duration of untreated psychosis for less than 14 weeks had been ill for 1 to 5 years. Seven percent of patients with a duration of untreated psychosis for more than 14 weeks had an onset of mental illness for 5 to 10 years, and only 5% of patients with a duration of untreated psychosis for less than 14 weeks had been ill for 5 to 10 years. 11% of patients with a duration of untreated psychosis for more than 14 weeks had been ill for above ten years as compared to the only 7% of patients with a duration of untreated psychosis for less than 14 weeks that had been ill for ten years and above.

4.2.6 Duration of untreated psychosis

Figure 15: Duration of untreated psychosis
During the one-year period, 58% of the sample population had a duration of untreated psychosis for less than 14 weeks. Less than half of the sample population had a duration of untreated psychosis for more than 14 weeks.

4.2.7 Substance abuse and duration of untreated psychosis

Figure 16: Substance abuse and duration of untreated psychosis

During the one-year period, 58% of the sample population had a duration of untreated psychosis for less than 14 weeks. Less than half of the sample population had a duration of untreated psychosis for more than 14 weeks.

23% of patients with a duration of untreated psychosis for more than 14 weeks had a history of a cannabis abuse, 15% of patients with a duration of untreated psychosis of less than 14
weeks abused both cannabis and alcohol. Those with a longer duration of untreated psychosis for more than 14 weeks also abused other substances such as tobacco, cocaine, and heroin.

4.2.8 Medical conditions and duration of untreated psychosis

Figure 17: Medical conditions and duration of untreated psychosis

Fifty six percent of the sample population with a duration of untreated psychosis of less than 14 weeks had an underlying medical condition, and 43% of the patients with a duration of untreated psychosis for less than 14 weeks had no medical conditions. 55% of the sample population with a duration of untreated psychosis for more than 14 weeks had no underlying medical condition, whilst 46% of the sample population with a duration of untreated psychosis for more than 14 weeks had a medical condition.

4.2.9 Family history of mental illness and duration of untreated psychosis

Figure 18: Family history of mental illness and duration of untreated psychosis
Data from two data collection forms were missing

56% of patients with a duration of untreated psychosis for less than 14 weeks had a family history of mental illness, and 54% of patients with a duration of untreated psychosis for more than 14 weeks had no family history of mental illness.

4.2.10 Diagnosis and duration of untreated psychosis

Figure 19: Diagnosis and duration of untreated psychosis

30% of patients with a duration of untreated psychosis for more than 14 weeks were diagnosed with schizophrenia, whilst only 10% of patients with a duration of untreated
psychosis for less than 14 weeks had been diagnosed with schizophrenia. Only 2% of the population with a duration of untreated psychosis for both more than and less than 14 weeks were diagnosed with schizoaffective disorder. Five percent of the patients with a duration of untreated psychosis for less than 14 weeks had been diagnosed with schizoaffective disorder and there were no patients with a duration of untreated psychosis of more than 14 weeks diagnosed with schizoaffective disorder. 34% of patients were diagnosed with psychosis due to a general medical or head injury with a duration of untreated psychosis of less than 14 weeks and only 25% of patients were diagnosed with psychosis due to general medical or head injury with a duration of untreated psychosis of more than 14 weeks. 15% of patients had a diagnosis of a substance induced psychotic disorder with a duration of untreated psychosis for less than 14 weeks as compared to 20% of the patients with a duration of untreated psychosis for more than 14 weeks. Only two patients with a duration of untreated psychosis of less than 14 weeks were diagnosed with brief psychotic disorder. There were no patients with a duration of untreated psychosis for more than 14 weeks diagnosed with a brief psychotic disorder. 14% of patients with a duration of untreated psychosis for more than 14 weeks had a diagnosis of psychosis not otherwise specified as compared to the only 10% of patients who had a duration of untreated psychosis for less than 14 weeks. Only 9% of patients with a duration of untreated psychosis for more than 14 weeks had a diagnosis of a mood disorder. Patients diagnosed with a mood disorder with a duration of untreated psychosis for less than 14 weeks represented only 20% of the sample population.

4.3 INTERVENTIONS AND DURATION OF UNTREATED PSYCHOSIS

Figure 20: Interventions and duration of untreated psychosis
All 85 patients that were studied in the one-year period had received medical intervention. 27% of patients with a duration of untreated psychosis of more than 14 weeks and 27% of patients with a duration of untreated psychosis of less than 14 weeks had received both medical and psychosocial intervention. 73% of patients with a duration of untreated psychosis for more 14 weeks and 73% of patients with a duration of untreated psychosis for less than 14 weeks had not received psychosocial intervention.

4.4 THE INCIDENCE OF FIRST EPISODE PSYCHOSIS

Over the one-year period January 2010 to January 2011, there were 85 cases of a DSM-IV psychotic illness. The annual incidence of all first episode psychosis was 3.5% age 18 and above. In this study, the incidence was higher in females than males.
CHAPTER 5

DISCUSSION

5.1 SOCIODEMOGRAPHIC AND CLINICAL DATA

Results from this study show that most of the patients with a FEP were between 25 and 34 years of age. This result is consistent with a study that describes the median age of onset of a FEP as 28 years for male and 29 years for female (Kirkbride et al, 2008). The majority of patients were black (98%), and this reflects the ethnic demographics of the population served. In a recent epidemiological study, black African groups were twice as likely to experience any psychotic disorder compared with other ethnic groups (Kirkbride et al, 2008). In this study, there was a preponderance of female adult patients with a FEP. This finding was high in contrast to other studies that demonstrate a high prevalence of FEP in male’s patients (Mbewe et al, 2006). More than half of the study population were unemployed and only 41% of the patients had a high school education. Payne et al (2006) reported that unemployment among FEP is usually high depending on the population served and local circumstances. This could be the explanation for the social disparity in my study since the setting is in the catchment area of mostly rural and outlying areas containing socio-economically disadvantaged people. The majority of the patients were single. This was similar to other African studies done in Mozambique and Ethiopia, which showed a high rate of psychotic illness amongst single, divorced, and widowed people (Jenkins et al, 2010).

Family members had referred most of the patients. 22% of patients had been referred by a primary health care system and only 8% had been referred by a general practitioner. This was similar to other studies that described more than half of the referrals of patients with first episode psychosis by non-medical individuals such as close family, 34% of patients referred by a primary health care service, and only 3% of patients referred by a general practitioner (Johannessen et al, 2005; Gomez-De-Regil et al, 2010). The most common reasons for referrals were a change in perception (87%) and a change in behaviour (79%). This was consistent with a study that described hallucinations and delusions as the commonest reasons for those who sought help after the onset of a FEP (Norman and Malla, 2001; Mbewe et al, 2006). Another study demonstrated positive symptoms of psychosis more commonly than the disorganised and negative symptoms of psychosis (Gomez-De-Regil et al, 2010).
Thirty one percent of patients with a FEP had an onset of mental illness between 18 to 24 years of age. This was consistent with other studies that describe the age of onset of FEP as ranging from the late teens to early twenties for men, and women apart from having an age of onset of a FEP, from a period of late adolescents to early adulthood, were also found to have two small peaks of age of onset of a FEP above 40 and 65 years of age caused by reduction of oestrogen after menopause (Chang et al, 2011). Mbewe et al (2006) in a study described the median age of onset of FEP as 26 years for both men and women.

More than half the population had been ill for less than one year and a quarter of the patients were ill for one to five years. This was similar to other studies that demonstrate that the majority of patients access treatment within three to six months of onset of illness, and the minority experience delays of one year and more (Morgan et al, 2005).

52% of the patients had been ill for more than 14 weeks and 48% of patients had been ill for less than 14 weeks. There are numerous reasons for the long DUP. Poor insight into psychosis could have contributed, however a study by Burns et al (2011a) reported that in South Africa, spiritual attribution and consultation with a traditional healer was associated with a long DUP, as well as patients with negative symptoms. Another study indicated that the mode of onset of psychosis determined the DUP, i.e. patients with an acute onset of psychosis would present within 10 weeks of onset, while those patients presenting with a more insidious onset of psychosis would present after ten weeks (Chow et al, 2005).

Cannabis was the substance most commonly used. 47% of the sample population used cannabis, and alcohol was used by 38% of the sample population. This was similar to a finding by Brink et al (2003) who reported a high co-morbidity between FEP and substance abuse in South Africa. Subjects with FEP were more likely to choose cannabis as their substance of abuse and there was a male predominance for this substance, while in the Western Cape, a particularly high prevalence of alcohol abuse was reported. Another study by Oosthuizen et al (2008) reported that while cannabis use is associated with a risk of onset of schizophrenia, it is also considered a moderate risk factor for the development of psychosis. The risk of psychosis increases with prolonged exposure to cannabis and adolescents are at particular risk. It has been found that genetic vulnerability (functional polymorphism in the COMT gene) interacts with cannabis in the adolescent leading to adult psychosis.
Coexisting medical conditions occurred in 51% of the study population and for some patients the medical condition could have contributed to the onset of FEP. The most common medical conditions diagnosed were HIV, hypertension and epilepsy. South Africa is located at the epicentre of the HIV/AIDS pandemic in sub Saharan Africa, with the fourth highest prevalence and the greatest number of people living with HIV/AIDS in the world (Kenneth et al, 2011). This could have been the reason for the high prevalence of psychosis associated with a medical condition in our setting.

Approximately 21% of the study population had a family history of mental illness. Diverse psychopathologies are commonly present in families of patients with FEP, and this implies a generalised vulnerability to a psychotic disorder (Fandi et al, 2009).

The most common diagnosis was psychosis due to general medical condition/head injury. 20% of patients had a diagnosis of schizophrenia, 18% were diagnosed with substance induced psychotic disorder, 14% with mood disorder, 12% with psychosis not otherwise specified and 2% of the sample population were diagnosed with schizophreniform disorder, schizoaffective disorder and brief psychotic disorder. A clinically significant level of medical co-morbidity and psychotic disorder was detected in this study, reinforcing the need for comprehensive screening (Paruk et al, 2009). A study by Mashaphu and Mkize (2007) at a psychiatric institution in Kwazulu-Natal found a 24% seroprevalence rate of HIV in adults with FEP, hence the possible explanation for an increased incidence of psychosis due to general medical condition in our study. The high prevalence of a general medical condition is due to the HIV epidemic in South Africa with a prevalence exceeding 18%. Baumann (2007) reported that there is a tendency for schizophrenia to cluster at lower socioeconomic status levels as well as urban areas, hence the high prevalence of schizophrenia in our setting. Our study shows that substance abuse precipitates psychotic illness, as 18% of the study population presented with substance induced psychosis, however this needs to be viewed against a generally high level of substance abuse in this country (Brink et al, 2008).

A study by Baldwin et al (2005) in rural Ireland found the incidence of schizoaffective disorder to be 2%, schizophreniform disorder to be 1.8%, and mood disorder to be 5.2%; this was similar to our findings. Delusional disorder and brief psychotic disorder were less common. This was in keeping with a study done by Reimherr and McClellan (2004). They were no patients diagnosed with delusional disorder in our unit.
5.2 THE INCIDENCE OF FEP AT DR GEORGE MUKHARI HOSPITAL

The incidence of FEP over a one-year period was 3.5%, of which 50 of the 85 patients with FEP were females, and 35 of the 85 patients were males. This incidence rate was lower than expected. This could be due to the relatively small sample population when compared to the large population size in a Brazilian study that demonstrated the incidence of FEP as 15.8%. The incidence for FEP in the world health organisation ten-country study was 9 to 35 per 1000000 (Menezes et al, 2007), which is high compared to this study.

5.3 THE RELATIONSHIP BETWEEN FEP AND DURATION OF UNTREATED PSYCHOSIS

In our study, ethnicity and gender difference was not statistically significantly associated with DUP, but being single and unemployed and a having lower school education were associated with a longer duration of untreated psychosis. These results are very similar to results from other studies that concluded inconsistent evidence with regard to the relationship of DUP with gender. Being married and employed however, was associated with a shorter duration of untreated psychosis (Pek et al, 2006).

With respect to help-seeking behaviour, patients with positive symptoms of psychosis had a shorter DUP than those with negative symptoms. Similarly, a study by Larsen et al (2009) found that positive symptoms like persecutory delusions could lead to more mistrust and resistive behaviour thereby contributing to delay in help seeking behaviour. Patients with negative symptoms and a decline in social functioning have a long DUP. Results from another study demonstrate that hallucinations and delusions were the most common reasons reported for those who sought help after the onset of psychosis, and the most common hallucination experienced was auditory (Mbewe et al, 2006; Norman and Malla, 2001).

In this study, family had primarily referred 54% of patients with a shorter DUP of less than 14 weeks, and those with a longer DUP of more than 14 weeks had been referred to Dr George Mukhari-psychiatry unit by a primary health care system, the police, a general practitioner or it was a self-referral. This was in keeping with other studies where police referred 50 percent of the first episode psychosis cases, 35% of patients were referred by family members, and these patients were associated with having a longer DUP (Johannessen et al, 2005, Burns et al, 2011a).
However, Burns (2011b) also reported that in South Africa, cultural attributions of cause, as well as consultations with traditional healers may not only delay entry to a psychiatry care, but also negatively impact on the prognosis of these patients with a FEP. This highlights the importance of mental health education in our country.

In this study, the majority of the patients who had presented with a first episode psychosis were in the age group of 18-24 years of age and had DUP of more than 14 weeks. 32% of patients with a DUP of less than 14 weeks were in the age group of 25-34 years. Studies have shown that having a positive family history of psychosis is associated with a younger age of onset of psychosis especially in females. However in recent studies Esterburg and Compton (2012) concluded that having a family history of psychosis influences both the duration of onset of mental illness and duration of untreated psychosis, and that male patients with a FEP had a longer duration of untreated psychosis, and a longer duration of onset of mental illness.

During the one-year period, and the 85 patients studied, 78% of patients had been ill for less than one year. Studies from a variety of countries, provides estimates of time between onset of psychosis and initiation of treatment as from one to two years. The means of which vary between 22 weeks to 150 weeks, and the median of up to 26 weeks (Norman and Malla, 2001). DUP is an important prognostic variable of which a long DUP has been associated with a poor clinical outcome (Shaffer et al, 2011). Hence early detection programs are required to decrease the period between illness onset, diagnosis, and treatment in first episode psychosis patients.

Substance use was reported in 34 patients who experienced a first episode psychosis, of which 16 (47%) patients used cannabis only, 13 (38%) patients used alcohol only, and 15% used both alcohol and cannabis. The patients who used cannabis only had a longer DUP of greater than 14 weeks compared to those patients who used both alcohol and cannabis, and had a DUP of less than 14 weeks. This finding was consistent to other studies, which found that 38% of patients with a FEP had a lifetime diagnosis of substance use disorder, and in South Africa 37% of patients with a FEP had a co-morbidity of substance use disorder. Cannabis use disorder, followed by alcohol use disorder were the most common substances used by patients with FEP, furthermore the DUP was significantly longer in patients with substance use disorders compared to non substance use disorder patients (Green et al; 2009; Brink et al, 2003). This suggested the high prevalence of FEP and cannabis use disorder in
our location, and the need for program implementation of early intervention strategies for patients with psychotic disorder.

Of the 85 patients that had a FEP, 44 patients had a short DUP of less than 14 weeks as compared to the 41 patients with a DUP of more than 14 weeks, and for some the medical condition reported could have contributed to the psychotic symptoms. Co-morbid psychiatric and medical disorders tend to correlate with a poorer outcome. Patients with mental illness have higher than expected prevalence rates of co-morbid general medical conditions, particularly metabolic and cardiovascular diseases. They are also at increased risk of contracting HIV infections (Paruk et al, 2009)

Fifty sixty percent of patients in our study with a family history of mental illness had a shorter DUP of less than 14 weeks as compared to the 54% of patients with a DUP of more than 14 weeks. Some studies found that having a positive history of psychotic disorder in first or second-degree relatives is associated with a shorter DUP. Other studies however, demonstrated that a positive family history of mental illness is not always associated with a short DUP, due to the tolerance for, and denial of early psychotic symptoms by the family, because of stigma associated with a confirmed diagnosis (Ross et al, 2007; Franz et al, 2010).

In relation to diagnosis, there was a tendency for DUP to be longer in patients with a diagnosis of non-affective psychosis, such as schizophrenia and substance induce psychosis as compared to patients with an affective psychosis. Craig et al (2000) in a population-based study of 429 patients with FEP, reported a significantly long DUP for patients with schizophrenia spectrum disorder than those patients with an affective psychosis. The findings were notably similar to this study.

5.4 INTERVENTION STRATEGIES

Over the one-year period, and the 85 patients analysed, all the 85 patients had received medication as a form of intervention, while only 23 patients had received both medication and psychosocial intervention. This high rate of lack of psychosocial management in this study, reiterates the need for psychosocial services for patients and families, and a comprehensive case management that addresses all patient issues. Owing to scarce resources, psychosocial service interventions for patients with FEP are often very limited and even neglected in our setting. However, a study by Killackey (2009), reported that despite there
being a compelling evidence for psychosocial and psychological interventions in treatment regimens, they are rarely implemented. This could be due to the lack of knowledge among clinicians and consumers, as well as problems with service structures. A study by Penn et al (2005) reported that in patients with FEP, the most clinical and social deterioration occurs in the first 5 years of the onset of the illness. This is the critical period for both pharmacological and psychosocial interventions. Medication can ameliorate positive and negative symptoms and can improve cognitive impairment and quality of life; however, some patients may not adhere to drug regimens or may not respond well to medications. Medication alone is not sufficient to prevent relapses or ensure functional recovery from an initial episode of psychosis, hence the need of psychosocial intervention to reduce the long-term disability associated with these patients.
CHAPTER 6

CONCLUSION

6.1 LIMITATIONS OF THE STUDY

The study suffered the following limitations. Firstly, the findings were based on a small sample. Secondly, there was the possibility of a sampling bias since 10 to 15 patient files could not be retrieved. Thirdly, omission or inaccuracies from patient records could have contributed to inconsistent results. Fourthly, although marital and work history are considered pre-morbid characteristics, there was a lack of a structured instrument to establish pre-morbid functioning and duration of untreated psychosis, as pre-morbid adjustment of the patients are considered a confounding factor of the DUP. For this reasons these finding cannot be generalised to all settings.

6.2 RECOMMENDATIONS

- Comprehensive evaluation, which includes identifying and addressing risk factors and investigating the patients for general medical conditions, should be considered as part of routine care.

- Rating scales should be implemented, and used routinely on first contact with patients to assess the duration of untreated psychosis and premorbid functioning.

- The local demographic factors, associated risk factors, clinical profile, and the availability of different treatment options should be considered in planning future services and local treatment guidelines.

- The need for a comprehensive early intervention service for FEP patients. These services need to be integrated into existing health care systems, to provide a comprehensive and continuous approach to patients in order to achieve reduction of DUP and better outcome for patients.

6.3 CONCLUSION
Patients with first episode psychosis remain an ongoing clinical challenge; hence the need for an early intervention service to promote early detection and improve the quality of care for these patients. This should become a standard of care in our setting.
REFERENCES


Appendix A: Data collection sheet

Participant Number: ___________

**Section 1: Socio-demographic data**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>b.</td>
</tr>
<tr>
<td>1. Fill in your age:</td>
<td>1. Fill in your gender:</td>
</tr>
<tr>
<td>2. 18 - 24</td>
<td>2. Male</td>
</tr>
<tr>
<td>3. 25 - 34</td>
<td>3. Female</td>
</tr>
<tr>
<td>4. 35 - 44</td>
<td>4. African</td>
</tr>
<tr>
<td>5. 45 - 54</td>
<td>2. White</td>
</tr>
<tr>
<td>5. 55+</td>
<td>3. Asian</td>
</tr>
<tr>
<td></td>
<td>4. Other</td>
</tr>
</tbody>
</table>
d. What is your current marital status?

1. [ ] Married
2. [ ] Living with partner
3. [ ] Widowed
4. [ ] Divorced
5. [ ] Separated
6. [ ] Never married

e. What is your current employment status?

1. [ ] Employed
2. [ ] Self Employed
3. [ ] Unemployed

f. Level of education

1. [ ] None
2. [ ] Primary
3. [ ] Secondary
4. Tertiary

g. Religion

1. Christian

2. Traditional

3. Other

Section 2: Psychiatry data

Reason for referral: Change in behaviour □ Change in thinking □ Change in perception □ Change in mood □

Source of referral: Self □ Family □ Police □ General Practioner □ Primary Health clinic/ Local clinic □

a. Age of mental illness

1. 18 - 24
<table>
<thead>
<tr>
<th>Age Group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2. 25 - 34</td>
<td></td>
</tr>
<tr>
<td>3. 35 - 44</td>
<td></td>
</tr>
<tr>
<td>4. 45 - 54</td>
<td></td>
</tr>
<tr>
<td>5. 55 &gt;</td>
<td></td>
</tr>
</tbody>
</table>

**b. Duration of onset of illness**

<table>
<thead>
<tr>
<th>Duration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. &lt; 1 year</td>
<td></td>
</tr>
<tr>
<td>2. 1 – 5 years</td>
<td></td>
</tr>
<tr>
<td>3. 5 – 10 years</td>
<td></td>
</tr>
<tr>
<td>4. &gt; 10 years</td>
<td></td>
</tr>
</tbody>
</table>

**c. Duration of untreated psychosis**

<table>
<thead>
<tr>
<th>Duration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. &lt;14 weeks</td>
<td></td>
</tr>
<tr>
<td>2. &gt; 14 weeks</td>
<td></td>
</tr>
</tbody>
</table>

**d. History of substance abuse**

<table>
<thead>
<tr>
<th>Substance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alcohol</td>
<td></td>
</tr>
<tr>
<td>2. Cannabis</td>
<td></td>
</tr>
<tr>
<td>3. Other Specify</td>
<td></td>
</tr>
</tbody>
</table>

3. Other Specify ______________________
e. Medical Condition

1. □ Yes  2. □ No

Specify _________________________________

f. Family history of mental illness

1. □ Yes  2. □ No

Diagnosis ________________________________

Diagnosis

A. □ Schizophrenia

B. □ Schizotypal Disorder

C. □ Schizoaffective Disorder

D. □ Psychosis due to General medical condition/Head injury

E. □ Substance induce psychotic disorder

F. □ Brief psychotic disorder

G. □ Delusional disorder

H. □ Psychosis not otherwise specified

I. □ Mood disorder
Interventions

1. Medical
2. Psychosocial
Appendix B: Clearance certificate from MREC

UNIVERSITY OF LIMPOPO
Medunsa Campus

MEDUNSA RESEARCH & ETHICS COMMITTEE
CLEARANCE CERTIFICATE

MEETING: 09/2011
PROJECT NUMBER: MREC/M/185/2011: PG

PROJECT:
Title: First episode psychosis at Dr George Mukhari Hospital from January 2010 to February 2011

Researcher: Dr HH Jogi
Supervisor: Prof S Rataemane
Co-supervisor: Dr Ballyram
Hospital Superintendent: MC Holm
Department: Psychiatry
School: Medicine
Degree: MMed Psychiatry

DECISION OF THE COMMITTEE:
MREC approved the project.

DATE: 15 November 2011

Note:
1) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee.
2) The budget for the research will be considered separately from the protocol. PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

Finding Solutions for Africa