CHAPTER 2: AIMS AND OBJECTIVES

The aim of this study was to determine, if any, the factors associated with relapses in schizophrenic patients with a view to provide guidelines for the early identification and prevention of relapses in community mental health clinics.

2.1. Hypothesis

The hypothesis is that there is no difference in the demographic and clinical characteristics of patients with schizophrenia who suffer a relapse compared to those who do not relapse.

2.2. Objectives

The specific objectives of this study were to:

1. Describe the demographic and clinical characteristics of a group of patients with schizophrenia in a community health setting.

2. Compare the characteristics of patients with relapse to those who do not have a relapse.

2.3. METHOD

2.3.1. Study design

The study was a retrospective review of the patients' records at community mental health clinics.

2.3.2. Sampling

Community mental health services in Gauteng is divided into 3 regions namely:

a) Region A (Johannesburg Metro and West Rand Districts),

b) Region B (Ekhuruleni and Sedibeng Districts) and

c) Region C (Pretoria).

This study was confined to the community mental health clinics in Region A of which there are 21 clinics in Johannesburg Metro and 16 in the West Rand Districts. Four (4) clinics were randomly selected from Johannesburg Metro viz.

a) Mofolo: 640 patients on record,

b) Dobsonville: 625 patients on record,

c) Orange Farm: 520 patients on record and

d) Lillian Ngoyi: 720 patients on record

and three (3) clinics from the West Rand Districts viz.

a) Kagiso: 650 patients on record

b) Krugersdorp: 500 patients on record and

c) Randfontein: 480 patients on record.

40% of the attendees have a diagnosis of schizophrenia.

217 patients (approx. 31 patients from each clinic) were randomly selected using the card-shuffling technique to be included in the study. The sample thus obtained was representative of the population under study.

2.3.3. Subjects

The inclusion criteria were:

a) All patients aged 18 years or older

b) A diagnosis of schizophrenia

c) Attendance at the clinics between the periods January 1995 to June 2005.

Patients were excluded if the diagnosis of schizophrenia was made for the first time in the preceding six months (to avoid any bias in detecting relapses in these patients).

2.3.4. Procedures

Demographic and clinical characteristics of patients with schizophrenia were obtained from the patients' clinic records by the investigator (Addendum E). The outcome variable was the presence or absence of a relapse.

Relapse was identified retrospectively in this study and the criteria for a relapse included:

a) Re-emergence or aggravation of psychotic symptoms for at least 7 days.

b) Admission to hospital

c) Care under a section of the Mental Health Care Act

d) A consultation with the psychiatrist and a consequent medication changed for deterioration in their condition

e) Increased staff input and/or more intensive case management pointed out by clinical staff

f) Documented evidence of significant changes in mental state.

g) an increase in intensive home based support from the community mental health team.

A planned hospital admission for unrelated medical or surgical illness, a forensic observation, a special investigation (e.g. lumbar puncture, CT scan) or family convenience was not considered as a relapse.

Non-compliance was defined as failure to fill a prescription, refusal to take medication, stopping treatment prematurely, taking medications at wrong times and/or incorrect dosage of medications.

The factors (variables) that might have an effect on relapses that were considered included:

i.   Gender (dichotomous – male / female)

ii. Age at next birthday (continuous - numerical)

iii. Marital status (nominal – single, divorced, separated or widowed / married / unknown)

iv. Source of income (nominal – nil / employed / state grant / family)

v.   Highest level of education (ordinal - primary / secondary / tertiary / unknown)

vi. Non-compliance with treatment (nominal – yes / no / unknown)

vii. Presence of substance abuse (nominal – yes / no / unknown)

viii. Presence of co-morbid psychiatric illness (nominal – yes / no / unknown)

ix . Type of comorbid psychiatric illness (nominal – personality disorder / mood disorder / suicidality / unknown)

x. Presence of co-morbid medical / surgical illness (nominal – yes / no / unknown)

xi. The presence of stressful life events (dichotomous – yes / no)

xii. Type of stressor (nominal – death in family/ relationship/personal/ injury/ financial/ other)

2.4. DATA ANALYSIS

A statistician was consulted to assist in determining the sample size using a 95% confidence interval. Descriptive statistics were computed as mean and frequencies (count and percentages). The two-sample t-test was used to compare the continuous characteristics (age) between the groups. Comparisons between relapse and non-relapse groups (outcome variable) with respect to the exposure variables (age, gender, highest level of education, employment status, non-compliance, substance abuse, co-morbid medical/ surgical illness, co-morbid psychiatric illness and psychosocial stressors) was examined by the use of contingency tables (chi-squared test with Yates correction and Fischer's exact test, Odds Ratios). The variables showing significant association ($p<0.05$) in the bivariate analyses was entered into the survey logistic regression to obtain the adjusted odds ratios (OR). The criterion for

removal in the multiple logistic regression analysis was p>0.05. All analysis was done using Statistical Package for Social Sciences 10.0 for windows (SPSS inc., Chicago, IL., USA).

2.5. ETHICS

The University of the Witwatersrand's Human Research Ethics Committee (HREC) approved the study, protocol number M050419 (Addendum C). The protocol was also approved by the Post-graduate Committee (Addendum D) of the University of Witwatersrand as meeting the criteria for a M. Med. in Psychiatry. Permission to conduct the study was obtained from the Head of Community Psychiatric services. The patients' name remained anonymous and confidential and was not recorded on the data sheet. The investigator alone kept and had access to a separate register, recording the patients' name and study number.