

FACTORS ASSOCIATED WITH RELAPSE AMONG MENTALLY ILL PATIENTS  
AT INTERMEDIATE HOSPITAL OSHAKATI, OSHANA REGION, NAMIBIA

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## **ABSTRACT**

Many patients suffering from mental illness receive treatment as outpatients, with their caregiver's taking responsibility for their continuing care. Relapse due to mental illness has an impact on societal costs and many of these patients experience relapse throughout their life. The purpose of this study was to determine factors associated with relapse among mentally ill patients according to the patients and their caregivers' views at Intermediate Hospital Oshakati, Oshana Region, Namibia. This study employed a quantitative, cross sectional and analytical design to determine these factors. Data from caregivers were collected using a self-administered questionnaire and researcher-administered questionnaire was used for patients.

Respondents were recruited from the Outpatient Department at Oshakati Psychiatric Unit. A total of 396 respondents were sampled in the study by means of simple random sampling. Based on the information given by respondents, SPSS software was employed to summarise, evaluate, and analyse numerical information. Multiple linear regression analysis was used to identify the greatest predictors for relapse on mentally ill patients at IHO. The dependent variable (relapse) and independent variables (factors) were entered into bivariate logistic regression to determine statistical association between these variables.

Findings revealed that non-adherence to medication due to side effects, and the non-availability of medicines at rural areas makes it costly to travel, thereby leading to relapse. Substance use and lack of health education were found to be associated with relapse by both respondents group. The results show a strong correlation between stressful life events and relapse. Visual hallucination, inability to sleep were found to have an association with mental illness relapse (OR 2.94, 0.03 and OR, 0.22,  $p=0.00$  respectively). Based on these findings, recommendations were made as follows: proper health education, home visits and provision of atypical antipsychotic.

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## **ABBREVIATIONS AND ACRONOMY**

<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>CR</b>	Criticism
<b>DALYS</b>	Disability Adjusted Life Years
<b>DSM-IV</b>	Diagnostic and Statistical Manual of Mental Disorder
<b>EE</b>	Expressed Emotion
<b>EOI</b>	Emotional Over Involvement
<b>HAART</b>	Highly Active Antiretroviral Therapy
<b>HIS</b>	Health Information System
<b>HIV</b>	Human Immune Deficiency Virus
<b>IHO</b>	Intermediate Hospital Oshakati
<b>MDD</b>	Major Depressive disorder
<b>MoHSS</b>	Ministry of Health and Social Services
<b>NEMLIST</b>	Namibia Essential Medicine List
<b>PHC</b>	Primary Health Care
<b>WHO</b>	World Health Organization

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My relatives and friends who assisted and wished me well during this study.

## DECLARATIONS

I, Hilma Nakashwa Julianne Katangolo, hereby declare that this study is a true reflection of my own research, and that this, or part thereof has not been submitted for a degree in any other institution of higher education.

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Date: April 2023

Hilma Nakashwa Julianne Katangolo

## **CHAPTER ONE**

### **1.1 INTRODUCTION**

Mental illness refers to a wide range of mental health disorders that affect a person's mood, thinking and behaviour. Many people have mental health concerns from time to time, but a mental health concern becomes a mental illness when on-going signs and symptoms cause frequent stress and affect the person's ability to function. Mental illness can make a person's life miserable because it interferes with the person's ability to function normally on an emotional, cognitive and performance level, which causes problems in their daily lifestyle and other forms of functioning such as at school or work, and even relationships. Not all mental illnesses are treatable as some of them have no cure and they are chronic in nature, while some conditions are difficult to treat and the success rate for treatment is poor (Shewangizaw & Mukherjee, 2014). There are different conditions that can cause persons to suffer from mental illness for their whole adult lives and examples of these mental illnesses include mood disorders, schizophrenia, anxiety disorders, substance abuse disorder and personality disorders.

Among individuals living with chronic mental illness, relapse becomes a frequent phenomenon. Relapse means to become ill again after apparent recovery or the return of ill health after an apparent or partial recovery (O'Neill, Summer & Collins, 2015). According to Shewangizaw and Mukherjee (2014), relapse may result in hospitalisation, cognitive impairment and sometimes medication resistance. Major factors which are related to relapse among mentally ill patients are substance abuse, co-morbid psychiatric illness, co-morbid medical and surgical conditions, stressful life events and treatment setting. Poor adherence with antipsychotic medication is a major preventable cause of

increased symptoms and relapses and can also result in re- hospitalisation and poor disease outcome. Relapse prevention is a great challenge to patients and their families and mental health professionals.

## **1.2 BACKGROUND TO THE PROBLEM**

Relapse among mentally ill patients is on the increase worldwide and it has caused great public concerns (Shewangizaw, & Mukherjee, 2014). Relapse of mental illness is inevitable, but the concern is the high rates of relapses.

A survey was conducted by Kazadi, Moosa and Jeenah (2008) in South Africa to study the experiences and insights of family caregivers of individuals with schizophrenia, bipolar disorders, and schizoaffective disorders. From the findings of this study, relapse was seen to have been a major concern for care givers because of its devastating consequences for family members of people living with mental illness. Of the 502 (51.12%) caregivers said that their family members stopped taking medication despite the doctor's advice, while 91% claimed that stopping taking medication led to relapse for their family member, and 838 (85.34%) caregivers said that their family members experienced relapse. As a result of relapse, their loved ones were unable to work, got hospitalized, attempted suicide and some were imprisoned. More than one third of care givers said that their family members relapsed five or more times since becoming diagnosed, leaving most care givers too often worried about their relatives relapsing (World Federation for Mental Health, 2008).

The study done in South Africa by Kazadi et al. (2008) found that the presence of a co-morbid, depressed mood, poor adherence due to a lack of patient insight, and medication side-effects appear to be the factors most likely to increase the risk of a relapse.

In another study conducted in Tanzania by Saraih (2012), it was revealed that non-adherence to antipsychotic medication, inadequate family support and stressful life events lead to relapse.

Namibia had a total number of 9137 patients admitted with mental illness in 2017, of which 3200 were admitted at Oshakati Psychiatric Unit. From the latter number, 362 patients were cases of mentally ill relapse patients at Intermediate Hospital Oshakati (IHO) (MOHSS, 2018), and this is due to the fact that mental health services in Namibia have been overlooked for years now; which is evidenced by the current mental health legislation that is being utilised which is the South African Mental Health Act no. 18 of 1973.

### **1.3 PROBLEM STATEMENT**

Oshakati Psychiatric Unit admits about 90 patients per month with different psychiatric disorders and the Outpatient Clinic provides services to a minimum of 100 patients per day (MOHSS, 2018).

The review of inpatient registers at Oshakati Psychiatric Unit revealed an increase in relapse in mentally ill patients for the year 2015 to 2017 as shown in the following table.

**TABLE 1: NUMBER OF RELAPSE CASES AT IHO FOR 2015-2017**

Year	No. of admissions in the year	No. of relapse cases	Percentage
2015	2356	202	8.5%
2016	2418	226	9.3%
2017	3200	362	11.3%

Source: MIS (Intermediate Hospital Oshakati), 2018

According to WHO (2005), the relapse rate is supposed to be between 3% and 5% of admissions. However, the Oshakati Psychiatric Unit shows that the rates of relapse are more than 5% which is unacceptable as per the WHO guidelines. The constant episodes of relapse and disruptions can cause strains and frustrations for the caregivers who are already having a difficult time taking care of the patients. Moreover, having a mentally ill family member brings strain and frustration to the caregivers. Some family members lose their social life completely (Uys & Middleton, 2014) .

Patients tend to deteriorate in their level of functioning with each relapse and it can take up to six (6) months for symptoms to be under control again. Resultantly, this causes a backward step in their progress and as their condition worsens, they become more disabled; hence their contribution to economic activities diminishes (Uys & Middleton, 2014).

Relapse brings negative effects and results in a huge burden to the mental health sector, because the patients must be hospitalised, and they also have to be stabilised again with high doses of medication. Ultimately, the patients' hospital bills and medications become too costly. The aforesaid statement leads to the following research question: What are the factors that are associated with relapse among mentally ill patients at Intermediate Hospital Oshakati, and can something be done to prevent relapse?

#### **1.4 PURPOSE OF THE STUDY**

The purpose of this study was to determine the factors associated with relapse among mentally ill patients according to the mentally ill patients' and their caregivers' views at Oshakati Intermediate Hospital.

## **1.5 OBJECTIVES OF THE STUDY**

The objectives of this study were threefold, namely to:

- determine the factors the patients associate with relapse in mentally ill patients at Intermediate Hospital Oshakati.
- determine the factors the caregivers associate with relapse in mentally ill patients at Intermediate Hospital Oshakati; and
- analyse correlations between different factors associated with relapse in mentally ill patients at Intermediate Hospital Oshakati.

## **1.6 SIGNIFICANCE OF THE STUDY**

The findings of this study are important because they contribute to the understanding of factors associated with relapse in patients living with mental illnesses by patients, caregivers, and mental health care providers. In addition, the study provides a picture that may assist in designing effective nursing interventions and the findings can also assist mental health care providers to improve the standards of mental healthcare and interventions. Other researchers may also benefit from this study as it will add to the existing body of knowledge on relapses among mentally ill patients and there is no literature on this topic in Namibia, and this prompted the researcher to study the factors associated with relapse among mentally ill patient in Namibia.

## **1.7 OPERATIONAL DEFINITIONS**

**Factors** - The elements contributing to a particular result or situation (Thesaurus dictionary, 2016). In this study factors refers to issues or events that caused a mentally ill patient to experience symptoms again.

**Mental illness** – Mental illness are illness associated with distress and problems pertaining to functioning in social, work and family activities (WHO, 2011). In this study mental illness refers to health conditions involving changes in emotion, thinking or behaviour or a combination of these.

**Patient** – This is a person who is registered to receive medical treatment from a doctor or hospital (Collins English dictionary, 2014). In this study a patient refers to a person living with mental health illness, who was at IHO psychiatric unit.

**Relapse** – This refers to the re-emergence or worsening of psychotic symptoms (Uys & Middleton, 2014). In this study relapse is a recurrence of symptoms of mental illness like those that patient have previously been experiencing.

## **1.8 PARADIGMATIC PERSPECTIVES**

Henning, Van Rensburg, and Smit (2014) define a paradigm as a theory or hypothesis. A research paradigm is a set of beliefs under which research is based. Paradigm perspectives influence the way research is designed, how data are to be collected and analysed, and how the research results are presented and disseminated. Since paradigms represent belief systems that guide a researcher, this study employed the positivism world view. Positivist views seek to be objective as far as possible and attempt to hold personal beliefs and biases in check. This involves the use of orderly and disciplined procedures that are designed to test the researcher's ideas about the nature of the phenomenon being studied (Wagner, Kawulich & Ganner, 2012). The paradigm considered in this study was from the positivism perspective and it has the following assumptions:



## **Ontology**

Ontology is defined as a patterned set of assumptions about reality. The fundamental ontological assumption of positivism is that there is a reality out there that can be studied and known. The nature of reality is that it is relatively constant across time and setting, and can be effectively studied, explored, and known. Therefore, it is part of the researcher's duty to discover this reality which, in this case, are the factors associated with relapse (Wagner et al., 2012). In this study, the researcher manipulated the reality of relapse into its different variables by designing a questionnaire that has questions that sought to look deep into what mental illness is, the meaning of relapse, the signs and symptoms of relapse and the factors associated with relapse among mentally ill patients.

## **Epistemology**

Epistemology according to Brink, Van der Walt and Van Rensburg (2016), is the concern with the nature of knowledge and ways of knowing and learning about social reality. Furthermore, because the knowledge of the reality can be tested empirically, the data is objective and therefore independent of the values of the researcher. In this study, the researcher acknowledges that the respondents would have developed knowledge through what was taught to them by health care givers, their interactions with the different systems and their own experiences and observations. Therefore, the researcher designed a questionnaire that incorporated all of that, as well as pre-testing the questionnaire to ensure that the results being collected produce this truth.

## **Axiology**

Axiology checks values and biases to validate the truth. Axiology pertains to the scientific methods that were used to achieve neutrality and objectivity during the inquiry process (Wagner et al., 2012). In this study, the researcher adhered to the ethical consideration of the study.

## **Methodology**

According to Brink et al. (2016), methodology may be defined as the specific procedures or techniques which are used to identify, select, process, and analyse information about the topic. Accordingly, a quantitative approach was used to conduct the study, because quantitative research is used to “answer questions about relationships among measured variables with the purpose of explaining, predicting, and controlling phenomena” (Wellman, Kruger & Mitchell, 2007, p. 251). Therefore, the research’s choice to include, in this study, two populations, namely patients and their care givers because it would enable the researcher to compare the answers from both points of closely involved data sources.

## **1.9 CHAPTER SUMMARY**

The chapter being summarised here introduced the concept of mental illness and relapse. Background information was provided concerning the rate of relapse according to other studies and data from Health Information System (HIS) of Intermediate Hospital Oshakati. The research’s problem statement, purpose of the study, study objectives, significance of the study, research designs and methods and the definition of concepts were presented. The next chapter on literature review focuses on factors associated with relapse among mentally ill patients. The conceptual framework of the study is also presented in the next chapter.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The previous chapter have introduced the concept of mental illness and relapse. This chapter review existing literature on the subject. A literature review assists the researcher to find out what already exists in relation to the problem of interest (Polit & Hungler, 2013) This section examines the literature on various factors that can be associated with mental illness relapse. These include poor antipsychotic medicine adherence, previous admissions, stressful life events, substance abuse and expressed emotion.

#### **2.2 MENTAL ILLNESS**

Mental illness makes up five of the ten leading causes of health disability and it has previously been predicted that by 2020, unipolar depression will be the second most disabling health condition in the world (Lopez, Mathers, Ezzati, Jamison & Murray, 2006). The fact sheet produced by the WHO (2014) suggests that mental illness is on the increase worldwide and today as many as 1,500 million people worldwide are estimated to be suffering at any given time from neuropsychiatric ailments. Worth noting is that three-quarters of these people live in developing countries.

According to Ranna (2018), mental illnesses are health conditions involving changes in emotion, thinking or behaviour (or a combination of these). Mental illnesses are associated with distress and/or problems that affect the normal functioning in social, work or family activities. Mental illness entails the diseases of the mind that affect a person's thought,

feelings or emotions, behaviour and relations with others. An individual with mental illness thinks, acts and talks differently from others in a disruptive or disorderly, confused or disorganized manner. Individuals with mental illness suffer from progressive organic disease of the brain that causes an individual to possess abnormal personality traits that handicap the individual and/or others. Patients with mental illness tend to lose touch with reality and engage in excessive consumption of and dependency on alcohol and drugs. Mental illness poses a threat to both the individual and the family in the sense that the patient will continue to live a poor quality of life, while at the same time the family will have the burden of care (emotional and physical stress). The major effect of mental illness is that it creates a burden on the family, community, and society at large. Mentally ill people are made vulnerable to poverty and cannot contribute to the development agenda of any given nation (WHO,2011)

Mental health conditions are among the major causes of disability within the Namibian population. The 2006 - 07 Demographic and Health Survey (MOHSS, 2007) found that the disability rate in Namibia was 3.1% and of this, 15% (7,360) comprised of people registered as living with mental health problems. Mental illness is treatable. Most individuals with mental illness continue to function in their daily lives.

### **2.3 RELAPSE**

Relapse in mentally ill patient is broadly recognized as the re-emergence or the worsening of psychotic symptoms. Relapses can occur at any time during treatment and recovery and are very detrimental to the successful management of mental illness. With each relapse, there is a longer period to recover (Shives, 2008). Relapse can be defined by aggravation of positive or negative symptoms, hospital admission in the past six months, and more

intensive case management and /or change in medication. One of the major reasons for relapse is noncompliance with medication regimen (Videbeck, 2018). Relapse can lead one to be a victim of violence and crime, substance abuse, poverty and homelessness hence reducing quality of life for such individuals (Gathaiya, 2011).

Chabungbam (2007) conducted a study in India on socio-demographic and clinical factors associated with relapse in schizophrenia and found out that: relapse in schizophrenia was associated with unemployment, number of psychotic episodes, side-effects of medication, and stressful life events. Patel (2007) in his study on medication adherence in mentally ill found out that non-adherence rate in chronic disorders where schizophrenia is included is 40-60%. Kazadi et al (2008) in his study on factors associated with relapse in schizophrenia found the following factors most likely to increase the risk of relapse; that is co-morbid depressed mood, poor adherence due to lack of patient insight, and medication side-effects. From these studies, it is evident that symptomatic relapse of schizophrenia is both distressing and costly. It can be devastating to the lives of the patients, their families and care takers.

Namibia still has a challenge with epidemiological data on mental illness because of a lack of scientific data collection systems, and formal registry on the prevalence and incidence of mental illnesses in the country. Nevertheless, the MOHSS reports that in 2014-2015, 6,436 mentally ill patients were attended to, of which 613 were new cases (Namibian Sun, 2015).

## **2.4 CONCEPTUAL FRAMEWORK**

According to Nieswiadomy and Bailey (2017), a conceptual framework is described as a tool that helps to explain the relationships between concepts, rather than being based on one theory and links the concepts selected from several, from previous research results or from the researcher's own experience. The conceptual framework is a platform on which the study is going to be based. This study is based on "spectrum of intervention for mental health" (Mrazek & Haggerty, 1994) (figure 1) as its conceptual framework. The figure shows early interventions which include prevention and treatment while recovery also involves treatment and continuing care. The researcher will be focusing on continuing care because relapse occurs during that stage.

### **2.4.1 Mental health promotion**

Mental health promotion involves actions that improve psychological wellbeing (WHO, 2014). As part of mental health promotion framework (figure 1), mental health is located within a holistic definition of health and it is not only focusing on an individual but also on groups, communities and setting where people live their life.

### **2.4.2 Early intervention**

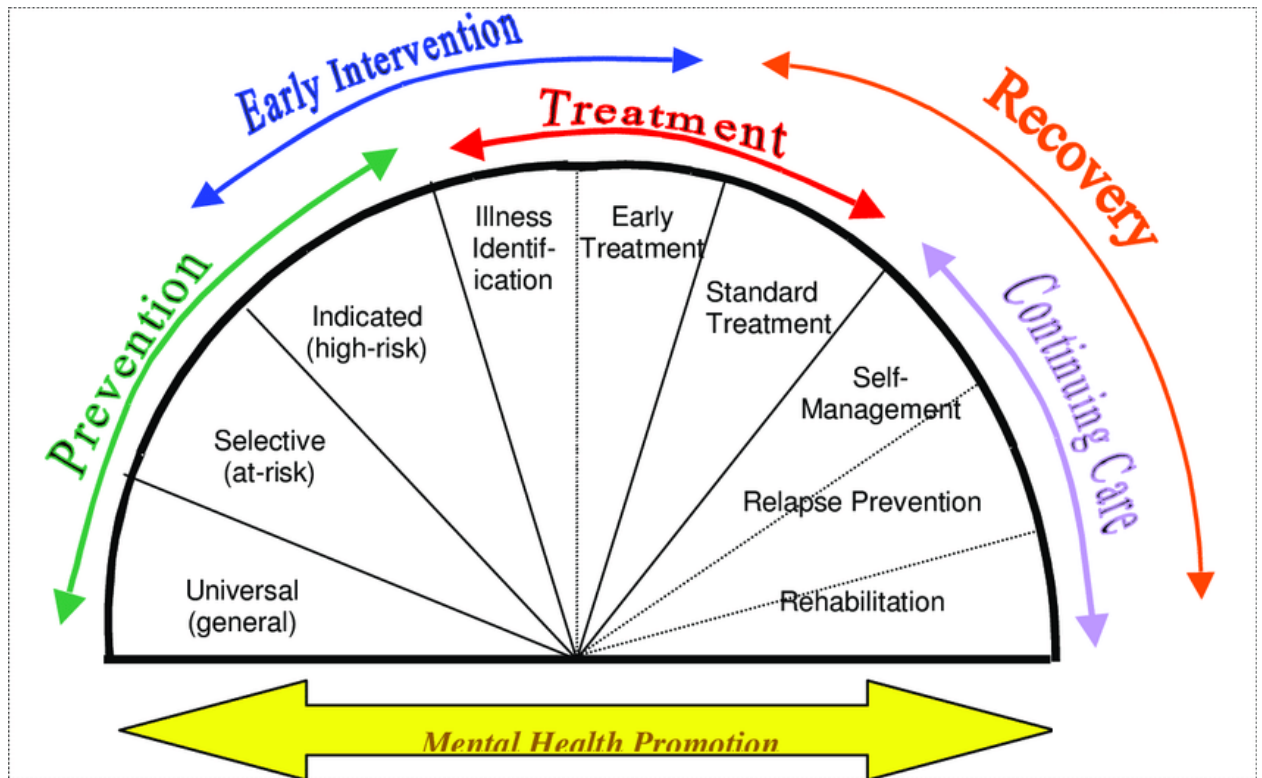
Early interventions involve prevention and treatment of mental illness. Relapse preventions involve comprehensive mental health service which means it involve primary prevention (before relapse occur), secondary prevention (during relapse) and tertiary prevention (after relapse). However, in this study relapse prevention is generally acknowledged to involve identifying early warning signs of relapse, responding quickly

and effectively. Relapse prevention is the fundamental of providing continuing care for people living with mental illness.

#### **2.4.2.1 Prevention**

Prevention refers to ‘interventions that occur before the initial onset of a disorder’ to prevent the development of disorder (Rickwood, 2005). The aim of prevention interventions is to reduce the cases of mental health problems and mental illness. Prevention interventions may be classified according to their target group, as: universal, provided to whole populations; selective, targeting those population groups at increased risk of developing a disorder; and indicated, targeting people showing minimal signs and symptoms of a disorder. Together, the universal, selective, and indicated categories of intervention correspond to the concept of ‘primary prevention’ in the model of prevention applied to mental health by Caplan. Prevention of mental health problems and mental disorders requires identification and modification of factors that determine mental ill health. The risk and protective factors to mental health occur within the context of everyday life.

Figure 1 below shows the spectrum of interventions for mental health as amended, to include recovery as in the Australian National Mental Health Plan, 2003-2008.



**FIGURE 1: SPECIMEN OF INTERVENTION FOR MENTAL HEALTH**

Source: Adapted from Mrazek and Haggerty (1994)

### **2.4.3 Continuing of care**

Within the spectrum of interventions for mental health, relapse prevention and rehabilitation

are placed under the arc of recovery, which comprises treatment and continuing care.

Relapse prevention and rehabilitation are elements that form part of and facilitate the recovery process. Continuing care comprises interventions for individuals whose disorders continue or recur.

The aim is to provide optimal clinical treatment and the necessary rehabilitation and support services to prevent relapse or the recurrence of symptoms, and to maintain optimal



functioning to promote recovery. Rehabilitation may focus on vocational, educational, social, and cognitive functioning. On-going mental health promotion and the reduction of risk factors and enhancement of protective factors are still relevant at this end of the spectrum to facilitate and support recovery and on-going wellbeing (Monograph, 2000).

#### **2.4.3.1 Relapse prevention**

Relapse prevention is aiming at reducing negative impact of mental illness on individuals and their caregivers. Therefore, it is fundamental to the provision of effective continuing care for individuals with mental illness. Relapse prevention requires awareness, planning and the provision of timely and appropriate intervention responses.

#### **2.4.3.2 Awareness- acceptance, attitude, and recognition**

Awareness is the first component of effective relapse prevention and is made up of the essential elements of acceptance and recognition. These factors determine whether people at risk of recurrent mental illness, and the people and services that they are in contact with, can accept and recognize changing mental health needs to be able to respond appropriately (Rickwood, 2014).

#### **2.4.3.3 Acceptance**

Acceptance that one has a mental illness and is at increased risk of relapse is an important first step for relapse prevention. Acceptance is acknowledged to be an important step in developing effective illness management strategies and working effectively with mental health services and treatments (Van Meiselman, Der Gaag, Kahn & Grypdonck, 2004). The process of acceptance is particularly complex for younger people as it may not be clear what a first episode of apparent mental illness was, however, there are additional

barriers to acceptance of mental illness in the form of substantial stigma and its impact on self-worth.

Both family and the patient need to accept the mental illness diagnoses. When the family accepts a diagnosis of mental illness, but the person concerned does not, this can create significant conflict and frustration between the consumer and their family (Rickwood, 2014). People need to have the support to go through the process of acceptance in their own way and in their own time. Coming to terms with having a mental illness is a time when people need easy access to information that is developmentally and culturally appropriate. Self-help groups are a significant resource in terms of providing information and advice and fill in the many information gaps that remain after contact with mental health services.

#### **2.4.3.4 Recognition of early symptoms**

Silva, Bassani and Palazzi (2009) in their case study found out that patients with greater number of previous admissions were more likely to relapse and hence experienced multiple admissions. This is an indication of poor adaption to the illness or illness that is resistant towards treatment. Recognition and awareness of early warning signs and of the risk and protective factors for mental health are fundamental to prevention of relapse. This awareness needs to be at individual, family, and service levels. There are two types of monitoring that are relevant to recognition of early warning signs: direct monitoring, where the presence or absence of symptoms is ascertained; and indirect monitoring, where situations are assessed to determine the presence or absence of risk and protective factors (Van Meiselman et al, 2004)

Every mental illness relapse requires an intervention, and the most effective interventions are as follow:

#### **2.4.3.5 Awareness of potential risk and protective factors for relapse**

Potential risk factors are those that contribute to a person`s vulnerability to relapse, whereas protective factors mitigate against relapse by enhancing wellbeing. They include not limited to the following:

##### **a) Medication adherence**

Mental health outcomes depend on the interactions of risk and protective factors in the patient, the family, and the wider environment. The most known risk factor for relapse is not taking medication as prescribed. Medications can be, however, a vexed issue as they often have unpleasant side effects and when people are feeling well, they prefer not to take them.

Li and Arthur (2005) demonstrate that patients who do not adhere to the medication`s regimen were more likely to relapse. This was found after they compared relapse and adherence after discharge in a group of 89 patients. Their study is supported by Kazadi et al. (2008) who studied 217 schizophrenia patients at mental outpatient clinics from January 1995 to June 2005. They found out that relapse was mostly caused by co-morbid depressed mood and poor drug adherence that is commonly associated with poor insights and medication side effects. Tremors, muscle rigidity, slurred speech and impotence were commonly found among patients, and these contributed much more to their poor adherence.

Techniques that encourage people to effectively take their medication are, therefore, essential for relapse prevention. According to Haddad, Brain, and Scott (2014), this can

include psycho-education to better inform people about their mental illness and the role of medications in its management. It can also include the use of behavioural tailoring to ensure that medication is not accidentally forgotten. Primarily, though, it is essential that the concerns of consumers around their medication are taken seriously and that clinician's work with consumers to develop the most appropriate medication regime and to review this regularly so as to ensure that it meets current needs (Haddad et al., 2014).

#### **b) Stress**

Stress is generally a risk factor and social support is a protective factor. Environmental stressors include inappropriate housing whereas environmental support includes good public transport. Some of the major physical stressors are sleep disturbances, poor physical health, poor nutrition, and harmful alcohol and other drug use; physical support includes relaxation and fitness. Social stressors come from isolation and poor social relationships; social support includes good relationships of all kinds. Emotional stressors come from feelings of hopelessness, despair, and poor self-esteem, whereas emotional support can come from finding hope and meaning in life. Silva, Bassani and Palazzo (2009) in their case study found that patients with a greater number of previous admissions were more likely to relapse and hence experience multiple admissions. This is an indication of poor adaption to the illness or illness that is resistant towards treatment.

A stressful life event is often associated with the onset of a psychotic relapse, and usually in the relapse all individuals utilise a variety of coping mechanisms to manage and navigate difficult life events including mental illness. Chronic mentally ill patients are more sensitive and susceptible to the negative effects of even a minor stress (Kazadi et al., 2008).

A study by Saraih (2012) in Tanzania shows that several patients have reported how unfavourable events in their lives have in one way or the other contributed to the number of relapses in their life. These events include losing a child during birth, miscarriage, being angered by caregivers and criticism from caregivers.

Moreover, a study done in Nigeria found out that relapse increases with these stressors including lack of employment, grief following the loss of a close family member and lack of social support. Other stressors include chronic interpersonal stress, stigma, poverty, homelessness, and criminal victimisation (Kazadi et al., 2008).

### **c) Substance abuse**

Brink, Oosthuizen, Emsley, Mbanga and Keyter (2014) point out that there is a high prevalent rate of substance abuse in patients with psychotic disorders. Brink et al. (2014) revealed that substance abuse by patients with schizophrenia is a rule not an exception. The prevalence rate among young psychiatric patients with schizophrenia ranges from 25% to 60%. Thus, the link between the two disorders raises the question as to whether substance abuse precipitates schizophrenia or is an outcome of schizophrenia.

Cantwell, Brewin and Glazebrook (2003) found increased symptoms and relapse in those patients who abused substances. In a study investigating the association between cannabis-use and mental health among Dutch adolescents, Monshouwer, van Dorselaer, Verdurmen, Bogt, Graaf and Vollenberg (2006) found that the use of cannabis rises with increasing age, and also that more boys than girls used cannabis, and cannabis use is related to mental health problems associated with delinquent and aggressive behaviour.

This resulted in poor school performance and early school leaving. Psychotic symptoms in young people using cannabis were found, while psychosis and depression were disorders noticed among those adolescents.

Cannabis triggers the onset or relapse of schizophrenia in predisposed persons as well as aggressive symptoms. The use of cannabis during adolescence can lead to schizophrenia, depending on the dose-response relation. Substance abuse, even in small quantities, may influence the onset of psychotic illness on certain individuals (Brink et al., 2014).

#### **d) Relationships**

A narrative review was performed by Tough, Siegrist and Fekete (2017) to synthesize findings along the constructs which include social support, social networks, negative social interactions, family functioning and relationship quality. The latter review indicated that social relationships play an important role in mental health and wellbeing in persons with disabilities, although findings are less consistent than in general populations, and the strength of associations vary between constructs. According to Tough et al. (2017), integrating persons with disabilities into social networks seems not enough and rehabilitation professionals together with affected persons and their peers should ensure that high quality relationships and tailored support are available.

Social relationships are protective factors of mental health for all people. People have different social needs across the course of their lifespan. For example, it is especially important for younger people to be able to mix with their peers as the establishment of good peer relationships is fundamental to wellbeing in adolescence. Yet, peer relationships can also be a risk factor if peers are involved in anti-social behaviours or harmful alcohol and another form of drug usage.

Rebuilding social relationships is essential to maintaining wellness and preventing relapse. Some people need to rebuild their basic social skills after an episode of mental illness. In such situations, self help and support groups can help with social skills rebuilding.

Expressed emotion (EE) has been used as a construct in understanding the interaction between patients and their caregivers. There are five structures of EE namely emotional over involvement (exaggerated emotional response, excessive self-sacrifice or devoted behaviour and marked over protectiveness), critical comments, hostility, positive remarks, and warmth (Bhurga & McKenzie, 2003). According to the study done in Israel to investigate the validity of expressed emotion, it was found that in 108 patients with schizophrenia and 15 with schizoaffective disorder, high criticism was significantly associated with poorer outcomes and worse in the illness course. The findings showed that relapse and time to readmission and the severity of symptoms at follow up all coincided and were all associated with a high criticism environment (Maron, Munitz, Jones, Welzman, & Hermesh, 2002).

#### **e) Employment and economic well being**

From a study done in Germany by Scheinmah, Obermeier and Meyer (2012), it was found out that patients who did not have job after discharge tended to relapse more and those who had jobs at discharge had that serving as a protective factor against relapse during follow ups. The present author thus concluded that having a paid job is not only for positive influence at work but is also for other factors such as social support and patient competencies.

Access to economic resources such as employment, housing, education, and incomes protects and promotes the mental health and well-being of families. This access enables people to connect with others as they may feel competent and in control, while also giving them the opportunity to improve their socio-economic status. If someone has no access to economic resources, this can result in poverty and hardships, thus making it difficult to afford quality housing, food, clothing, transportation, and all other things needed to be healthy (Canadian Mental Health Association, 2012).

#### **f) Accommodation**

Poor housing has been used as an indicator of poverty and targeted to improve public health and reduce inequalities in health (WHO, 2004). Shack Dwellers Federation of Namibia (2018) states that 995000 live in shacks in urban centres of Namibia. The conditions in these shacks are unbearable. Most people living in shacks have no access to toilets and they use unhygienic water sources. Some community members erect *cuca* shops on their shacks so as to make a living and in most of the times the music is too loud, and they end up disturbing their neighbours.

Homelessness and inappropriate housing expose people living with mental illnesses to risky factors such drug and alcohol use, poor nutrition and sleep deprivation, disease, and lack of self-care. Safe, secure, and stable accommodation is a protective factor for mental health.

#### **g) Co-morbidity and physical health**

A poor physical health status affects the on-going mental health and wellbeing of people with mental illness. People with serious mental illnesses are at risk of experiencing chronic



physical illness (WHO, 2014). Furthermore, behavioural factors such as smoking, harmful alcohol and other drug use, obesity, poor diet, inadequate living situations (such as homelessness), and poor self-care because of illness symptoms, can make people with mental illnesses vulnerable to physical health problems. In contrast, being in good physical health, sleeping well, eating well, exercising, and avoiding harmful alcohol and other drug use are important for maintaining wellbeing. In the consultations, many consumers mentioned the importance of “getting the basics needs” to prevent relapse, by which they meant the fundamental sources of wellbeing in terms of sleep, nutrition, physical fitness, and access to physical health care (Rickwood, 2014). These are fundamental to the wellbeing of all people but assume greater significance for people who are more vulnerable to mental health problems because they have previously experienced an episode of mental illness.

According to a study done in South Africa by Kazadi et al. (2008), a third of the patients with relapses had comorbid medical illnesses; although there are published reports that co-morbid medical disorders exacerbate the relapse process. In South Africa, mental health services remain marginalised and poorly integrated with general medical services in the primary health care system. Co-morbid medical illnesses are managed by different services, and it is possible that adequate attention is not paid to record these co-morbid medical disorders in case of notes done at mental health clinics.

There are two severe physical illnesses that normally manifest with mental illness, namely HIV /AIDS and various forms of cancer. There are currently 36.9 million people worldwide living with HIV/AIDS and 256000 Namibians living with HIV/AIDS (Centres for Disease Control and Prevention, 2018).

Currently patients living with HIV/AIDS are on Highly Active Antiretroviral Therapy (HAART). Despite the advances in HIV treatment, the rates of post-traumatic stress disorder (PTSD) and major depression disorder (MDD) remain highly prevalent in those HIV positive people being treated with HAART (Keuroghlian, Kamen, Neri, Lee, Liu and Gore-Felton, 2011).

It is estimated that in 2018, there were nearly 18.1 million people newly diagnosed with cancer and nearly 9.6 million cancer related deaths worldwide (WHO, 2019). Among cancer patients, it is estimated that the occurrence of anxiety and depression was nearly twice as high in the general population (Hinz, Kraus, Hauss, Hockel, Kortmann, Stolzenburg, & Schwarz, 2010). MDD was the most diagnosed mental health disorder reported by cancer patients (Kleiber, Bennet, Hodges, Thekkumpurah & Sharpe, 2010).

#### **2.4.3.6 Rehabilitation**

Known as psychiatric rehabilitation, it is a set of targeted interventions that are intended to prevent further or reduce disability that is associated with mental illness. It is a process of assisting people to acquire and use the strength and skills, support, and resources necessary for successful and satisfying living, learning, and working in their environment of choice. Rehabilitation involves resilience, teaching and planning as a part of relapse prevention.

#### **2.4.3.7 Resilience**

Resilience is defined as the ability to recover from setbacks, adapt well to change and keep going in the face of adversity. After relapse, it is resilience which keeps patients going. Resilience derives from many diverse sources, and these can vary according to individual temperaments, circumstances, life-stage, and cultural background.

According to Yamashita and Yoshioka (2016), patients with high resilience had a lower risk of relapse and deeper self-disclosure, and they add that during recovery patients' needs to be assisted in building personal relationships with others and in deepening self-disclosure in a setting where they can relax and thus promoting their natural ability to recover.

#### **2.4.3.8 Teaching**

According to Rickwood (2014), teaching assists with the empowerment of people who have been seriously affected by mental illness to make decisions they choose, rather than having decisions imposed on them and thereby losing control of their lives.

#### **2.4.3.9 Planning**

Planning is essential to relapse prevention. Planning is what empowers people with mental illnesses to make the decisions they choose rather than having decisions made for them. Essential to effective planning is good communication between all parties involved (the patient, their family and careers, clinical service provider, rehabilitation, and support services). Developing a relapse prevention plan can reduce occurrence of relapse experiences. The relapse plan is based specifically on or tends to be associated with one's mental health experiences and it has the following components: triggers-making a list of specific events or situations in life that have triggered past relapse and that might also trigger future relapse; for example, physical illness, insomnia, substance use and financial difficulties (Rickwood, 2014).

Early warning signs: Once patients have experienced a trigger, they might focus more on the trigger and stop taking care of themselves, then at that point early warning signs of

relapse will be noticed. These include lack of sleep, drinking more and having trouble getting things done at home or work.

Action steps: Making a list of things the patients can do to avoid or manage the trigger or to react to early signs like learning more about mental health and participating in treatments that can help you to recover.

People who can help you: Friends and family can sometimes think of triggers or early warning signs or tips that the patient did not consider, and they can be on the lookout for early warning signs to help relapse prevention.

## **2.5 CHAPTER SUMMARY**

This chapter presented an overview of global, regional, and national factors associated with relapse in mentally ill patients. It reviewed the literature relating to mental illness and relapse from the perspective of other countries. A conceptual framework for the study was presented. In the next chapter, the research design and methods for the study is discussed.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter describes and justifies the research design and methods used in this study. To that end, both the research design and the methods adopted in the study are described in detail; that is, the population and sampling, data collection, data analysis, validity, and reliability, as well as the observance of ethics.

#### **3.2 DESIGN**

In this study, the researcher adopted a quantitative approach that is analytical and cross-sectional in nature as they are described below.

##### **3.2.1 Quantitative design**

Quantitative research falls within the philosophical foundation of positivism. A positivist researcher believes in the concepts of objective reality (Jiworong, Johnson & Welch, 2014). In addition, quantitative research operates on strict rules of logic, truth, laws, and predictions (Burns & Groove, 2011). Its results appear in the form of numeric data which are obtained from subgroups to generalise the findings to the population that is being studied. They are usually reported in statistical language (De Vos, Strydom, Fouche & Delport, 2011). The researcher used a quantitative design to determine factors associated with relapse among mentally ill patients. The quantitative research design focuses on various concepts and numeric information which were statistically analysed.

### **3.2.2 Analytical design**

An analytical research design is the use of an appropriate process to break a problem down into elements which are necessary to solve it and attempts to establish why it is that way or how it came to be. An analytical design concerns itself with cause-effect relationships and correlations in a phenomenon (Howick, 2002). The researcher chose an analytical research design to determine assumptions on factors associated with relapse among mentally ill patients and to estimate statistical-based factors associated with relapse.

### **3.2.3 Cross-sectional design**

A cross-sectional research design collects data on subjects at one point in time (Brink et al., 2016). A large amount of data is collected at one point, making the results more readily available (Brink et al., 2016). In this study, a cross sectional design was employed by collecting data on factors associated with relapse among mentally ill patients only in one hospital which is Oshakati Psychiatric Unit from the identified population consisting of relapsed mentally ill patients and their caregivers for the specified period of January 2020 to March 2020.

## **3.3 RESEARCH SETTING**

Oshana is the smallest region (5,290 km<sup>2</sup>) in the northern part of Namibia with a population of approximately 167,797 people. The region has only one referral hospital, namely Intermediate Hospital Oshakati, which caters three towns namely Oshakati, Ongwediva and Ondangwa, which are governed by municipal councils. The region is situated in the centre of northwest Namibia and shares borders with the following regions: Oshikoto to the east, Omusati to the northwest, Ohangwena to the north and Kunene to

the south. The region comprises of sixteen (16) health facilities, of which one is a referral hospital, namely Intermediate Hospital Oshakati (IHO) with a capacity of 750 beds. The hospital has sixteen (16) wards in total including the psychiatric ward. The reason for conducting the study in Oshana region was because it is the only region with a referral hospital and a psychiatric unit at the northern part of Namibia.

Oshakati Psychiatric Unit provides mental health services to all patients with mental illness, and it has a responsibility to promote mental health, prevent mental disorders, and treat and rehabilitate affected individuals. It is the psychiatric referral unit in the northwest for all five (5) regions namely Oshana, Omusati, Oshikoto, Ohangwena and Kunene region.

### **3.4 POPULATION**

A population is a complete set of persons or objects that possess some common characteristics that are of interest to the researcher (Brink et al., 2016). The target population contains all the elements of the total population that the researcher needs for the study (Bhattacharjee, 2012). The population of this study according to the Health Information System (HIS) (2018), comprised of 3200 patients suffering from chronic mental illness and are making use of the Oshakati Psychiatric Unit services each year. Therefore, the target population for this study comprised of approximately 3200 patients suffering from chronic mental illness and their 3200 caregivers. The caregivers were added to the target population to strengthen the information from the patients as well as to study the problem from different viewpoints to make the study findings more reliable.

### 3.5 SAMPLE

A sample is a subset of the population that is selected to represent the population (Brink et al., 2016). In this study, the sample that was used consisted of mentally ill patients and their caregivers. A sample size was calculated using the Fisher's formula and the sample was 196 patients and their 196 caregivers.

$$n = \frac{Z^2 \cdot P(1-P)}{d^2} = \frac{(1.96)^2 (0.15)(1-0.15)}{(0.05)^2} = \frac{3.8416 (0.1275)}{0.0025} = 0.489804 \times 196$$

n = sample size ( 196)

n= 196 x 2 (respondents' group)

n= 392

Z a/2 = level of confidence according to the standard normal distribution (for a level of confidence of 95%, z = 1.96

p= prevalence rate (known from average relapse prevalence rate of 3 years 15 %) in decimal form =0.15

d = the precision of the estimate

### 3.6 SAMPLING

Sampling refers to the process of selecting the sample from the population to obtain information that represents the population of interest (Brink et al., 2016). In this study, the researcher used a simple random sampling technique, a technique of selecting a sample



randomly by creating equal chances to all respondents of being selected in a sample and at the same time avoiding bias in the study.

A simple random procedure was used to select respondents who met the inclusion criteria. The respondents were each given a chance to draw a folded paper with either a “yes” or “no” from a bowl and those who drew out a paper with a yes made up the sample for the study. The process took 30 minutes to prepare the papers and to do the selection daily. The inclusion and exclusion criteria were used by the researcher to exclude vulnerable respondents from the study.

### **3.6.1 Inclusion criteria**

The inclusion criteria of the patients comprised of the following:

- A patient who has been diagnosed with a chronic mental illness according to DSM-V for more than six (6) months.
- A patient who is older than 18 years and not older than 60 years.
- A patient who can follow the instructions; and
- A patient who has no severe psychotic features.

The inclusion criteria of the caregivers comprise of the following:

- Caregivers should be a person who is older than eighteen (18) years and not older than 60 years; and
- Key caregivers who have been residing together with the patient for more than 6 months.

### **3.6.2 Exclusion criteria**

Patient respondents with a 1st episode of psychotic symptoms, severe psychotic features and age less than 18 and older than 60 years were excluded from the sample as well as caregiver respondents less than 18 years and older than 60 years and did not stay with the patients for more than 6 months.

## **3.7 RESEARCH INSTRUMENT**

A questionnaire was used because it is a quick way of obtaining data from many respondents and it is less expensive in terms of time and money (Brink et al., 2016). Two types of questionnaires were used, one was written in a vernacular language that is Oshiwambo, while the other one was in simple and easy English and all respondents were able to understand them. The questionnaire was translated into Oshiwambo language because the study population consists mostly of the Oshiwambo speaking respondents. The questionnaire for patients was administered by the researcher. The rationale behind this approach was to ensure the completion of the questionnaire and to obtain full cooperation from respondents, while caregivers were given self-administrated questionnaires. Respondents were given chances to choose either to answer the questionnaire in Oshiwambo or the one in English; however, only 42 out of 196 caregivers opted for an English version and 154 for the Oshiwambo one. The questionnaire comprised of closed-ended and open-ended questions, and it was divided into two sections:

### **SECTION A**

Section A consisted of the following sub-sections, namely:

#### **3.7.1 Demographic data**

This part of the questionnaire asked questions on the demographic information of both patients and caregivers, namely gender, age, marital status, level of education, source of income, home, relationship to caregivers or to the patient, home language, type of dwelling and religious affiliation (Annexure 2 and 3) to gauge the representativeness.

## **SECTION B**

Section B consisted of the following subsections:

### **3.7.2 Factors associated with relapse**

Factors associated with relapse were addressed under the following subsections:

#### ***3.7.2.1 Knowledge of mental illness treatment and care***

This part of the questionnaire comprised of four (4) closed-ended questions. Respondents were asked to tick the appropriate answer on the definition of mental illness, the type of mental illness they were suffering from or the type of illness their relative is suffering from. They were also asked to indicate true and false on the statement about mental illness and a question to tick all symptoms they have experienced.

#### ***3.7.2.2 Treatment history and admissions***

This part of the questionnaire contained five (5) closed-ended questions; the first question was on the admission history of the patients due to mental illness in the past 3 years (1-3 times, 3-6, 7-10, or 10 times and more), with the second question, respondents were asked to tick all the symptoms they had experienced whenever they were being admitted. Another question asked respondents to tick the appropriate box on how they understand the word “relapse”. Respondents were also asked to indicate with a yes or no if they think

they have relapsed or if they think their relatives have relapsed. They were also asked to indicate with a tick on the symptoms they experience when relapsing.

#### ***3.7.2.3 Medication knowledge, type, doses, side effects, adherence, accessibility, and availability***

This part of the questionnaire contained both open and closed-ended questions. Respondents were asked to mention the name of the medication they are currently taking. They were also asked if they ever stopped medication before relapse and to give reason as to why, if they have ever stopped. In addition, respondents were asked to answer with a yes or no if they had any medication side effects, and if they have problems collecting medication from the health facility.

#### ***3.7.2.4 Support system availability***

Respondents were asked if there are people encouraging them to stop medication of which they had to answer with never, sometimes, or always. They were also asked to tick in the appropriate box on the type of support they get at home. Furthermore, a question was asked on whether they have ever received information on the given topic by indicating a yes or a no, and a further question was asked if information given was understandable, easy to follow, in the official language, in an indigenous language, or it was not clear. Respondents were also asked as to how often a mental health nurse visited them at home, is it never, once a year or more than twice a year? They were also asked where they slept the previous day before being brought to the hospital, what they need to cope with mental illness, the substance they mostly used (e.g. alcohol, cocaine, marijuana, tobacco, or none) and how often it took them to be admitted or to visit the hospital with psychotic symptoms after taking the above-mentioned substance.

#### ***3.7.2.5 Comorbidity***

Respondents were asked to tick a “yes” or “no” if they have any other illness apart from mental illness and to write them down if any.

#### ***3.7.2.6 Psychosocial stressors***

Respondents were asked if they have ever gone through the following situation namely: death of a close relative, financial problems, physical abuse, discrimination/stigma, bullying, unplanned pregnancy, divorce or breakup, others (specify) before admission, by ticking all the applicable answers.

### **3.8 PROCEDURE FOR DATA COLLECTION**

Data were collected while respondents were being attended to at an outpatient department, Oshakati Psychiatric Unit. Respondents were identified by nurses at Oshakati Outpatient Psychiatric Unit because they know the patients with no severe psychotic symptoms and stable mental capability, and their caregivers were identified by the researcher for recruitment in the study. The researcher approached each respondent on an individual basis, and introduced the research study, obtained the permission, and explained the questionnaire. After the researcher had ensured that the patient and caregivers understood the aim and objectives of the study and they had met the inclusion criteria, the researcher obtained written permission from the caregivers and patient. The researcher asked the patient questions in the questionnaire and filled in the answers as provided by the respondent. The data collection took about seventy-nine (79) days with 392 respondents who participated in the study.

### **3.9 PILOT TESTING**

Pilot testing is a small-scale trial run of a particular component and researchers frequently conduct these to refine the methodology (Burns, Grove, & Gray, 2011). There are many reasons to employ a pilot testing before implementing the main study. What is a Pilot Study? - Definition and Example (2016) lists them as follows: to test the research process and/or protocol, and to test how possible the design is in terms of the adequacy of study resources, time, finances, and materials. It is also used to evaluate the feasibility of recruitment, randomisation, retention, assessment procedures, new methods, and/or implementation of the novel intervention (Leon, Davis, & Kraemer, 2011). Other reasons are to develop or test the efficacy of research instruments and protocols to see whether there are any confusing or misleading questions. Pilot testing also assists the researcher to estimate statistical parameters for later analysis. Certain statistical analyses require that the sample size be sufficiently large and that it contains enough variability to detect differences between groups, given any real differences to be detected.

The respondents for the pilot run were like those in the study and it was done in the similar settings. In this study, the pilot testing was done at Windhoek Central Hospital- Mental Health Centre because it is the only other unit with mentally ill patients, and it was not part of the study setting. Time allocation for the completion of the questionnaire was sufficient as most of the respondents completed the questionnaire within the 20 minutes given. The languages used were both Oshiwambo and English, and the language was crafted in such a manner that it was simple and understandable as no respondent found them difficult to interpret.

The pilot testing needs to be 10% of the sample size, therefore, a total number of thirty (30) patients with mental illness and their 30 caregivers were selected randomly at the Outpatient department for this purpose. Both questionnaires for Oshiwambo and English were tested in pilot testing. Pilot testing findings were analysed using Microsoft Excel and later the results were checked with Cronbach's alpha test of which all variables gave an average 0.69 alpha coefficient. Before the Cronbach's alpha test was run, all possible answers where respondents had to choose from were coded with numbers and every answer given was attached to its corresponding coding.

Findings from the pilot testing necessitated the following changes in the questionnaire: Under Section B, question number 2.3, the researcher changed the following variable: medications knowledge, type, doses, side effects, adherence, accessibility, and availability.

Under question 2.3.2, before relapsed, did you ever stop your medication? Yes/no, if you choose yes above, list the reason here. During pilot testing, there was no further question to list reasons if one chooses "yes" as an answer. The identified question was added to the original questionnaire.

Under subsection 2.4, support system availability, the following changes were made: During pilot testing, the following question was asked: "Where were you staying before admission" and respondents answered by indicating the village and town name, instead of the site (like home, street or church) and this is what the researcher was interested in. The question was modified to read as follows, 2.4.7, "Where did you sleep previous days before you came to the hospital?"

After adjustment, the questionnaire was again pretested with 7 patients and 7 caregivers, and the findings were tested with Cronbach's alpha test and scored 0.72 which was reliable.

### **3.10 DATA ANALYSIS**

Data analysis was done utilising descriptive statistics which revealed factors that are associated with relapse. Data were analysed with the assistance of a statistician using the SPSS software computer package version 25.0 and Microsoft excel using Chi-square test. Chi-square was used to compare associations between factors. Mean, standard deviation, frequency and percentages were used in the study to present the demographic data. Multiple linear regression analysis was used to identify the greatest predictors for relapse on mentally ill patients at IHO. The dependent variable (relapse) and independent variables (factors) were entered into bivariate logistic regression to determine statistical associations between these variables.

### **3.11 RELIABILITY**

Brink et al. (2016) describe reliability as the degree to which the instrument measures the attributes it is supposed to be measuring. Reliability encompasses the stability, consistency, accuracy, and dependability of a measuring instrument. The reliability of this instrument was tested during pilot testing whereby the researcher determined the accuracy and consistency of the research instrument and unclear items were rephrased. The researcher's supervisor also reviewed the questionnaire and discussed its reliability. The following characteristics were checked to ensure reliability: stability, equivalence, and internal consistency.



### **3.11.1 Stability**

The stability of the research instrument refers to its consistency over time (Brink et al., 2016) and in this study, stability was tested during pilot testing in a way that the group of respondents who participated in the pilot testing produced similar results such as within the sections of comorbidity and there was a high degree of agreement among respondents for each item.

### **3.11.2 Equivalence**

Test of equivalence attempts to determine whether similar tests given at the same time yield the same characteristics (Brink et al., 2016). In this study, the same questionnaire was distributed to the respondents and caregivers, and it yielded similar results.

### **3.11.3 Internal consistency**

Internal consistency addresses the extent to which all items on an instrument measure the same variable (Brink et al., 2016). The reliability of the questionnaire was increased through using items that strongly correlated with the variables that were studied.

In this study, internal consistency was measured with Cronbach's alpha by running an analysis called the Kuder-Richardson 20 and the questionnaire scored 0.72.

## **3.12 VALIDITY**

A valid instrument is defined as 'doing what it is intended to do, measuring what it is supposed to measure and yielding scores whose differences reflect the true differences of the variable being measured rather than random or constant errors' (De Vos, Strydom, Fouche, & Delpont, 2011, p. 80). The definition of validity has two dimensions: the instrument measures the concept in question and the concept is measured accurately. In

this study, the questionnaire's content, face, and external validity were tested during pilot testing and by the study supervisor as follows:

### **3.12.1 Content validity**

Brink et al. (2016) describe content validity as how well the instrument represents all the components of the variables to be measured. Babbie and Mouton (2002) describe content validity as how much a measurement covers meanings included within the concept. In the study, content validity was achieved through an extensive literature search of previous studies and the questionnaire that was translated into Oshiwambo was reviewed by the main supervisor as an expert in the Oshiwambo language.

### **3.12.2 Face validity**

Face validity refers to whether the instrument appears to measure what it is supposed to measure (Brink et al., 2016). In this study, the research methodology, research design, and methods were linked to provide answers to the research purpose and objectives, and also the questionnaire was reviewed by two supervisors who are also experts in the field, and it was confirmed that it reached the objectives of the study.

### **3.12.3 External validity**

Polit and Hungler (2007 p. 647) define external validity as “the degree to which the findings of the study can be generalized to settings or samples other than the one studied”. The researcher used simple random sampling to select the samples so that each patient had a high chance of being selected.

### **3.13 RESEARCH ETHICS**

Bogonko and Kathure (2015) define ethics as a branch of philosophy that deals with one's conduct and serves as a guide to one's behaviour. All ethical considerations pertaining to avoidance of harm to the respondents, informed consent, confidentiality, and authorisation to undertake the study were observed in this study.

#### **3.13.1 Permission to conduct the research**

The researcher obtained a letter of authorisation and permission from University of Namibia research ethical committee. Permission to conduct the research was further given by the Ministry of Health and Social services research unit and then later by Intermediate Hospital Oshakati Medical Services Management Committee.

#### **3.13.2 Informed consent**

The researcher obtained informed consent from the caregivers after explaining the whole process, their right to participating in the study and no risks will be incurred from participating in the study. It was explained to the respondents that there would be no direct benefits to the respondents participating in the study. The informed consent also includes the purpose, objectives and methods, duration of answering the questionnaire, identity, and the researcher's qualifications.

#### **3.13.3 Principles of respect of persons**

Respondents were only included in the study when they had signed the consent form. They were informed that they could withdraw from the study at any point or choose not to answer some questions with no penalty.

#### **3.13.4 Principle of beneficence**

The questionnaire was carefully structured in a manner to avoid psychological stress to respondents. It was reviewed by the respective ethics committees of the University of Namibia and the MOHSS. The researcher used codes to protect the identity of the respondents and to ensure that they are not harmed.

#### **3.13.5 Fair treatment/justice**

In this study, the principle of justice was ensured such that every potential participant had an equal opportunity to be selected from the target population for the reasons directly related to the research purpose and not because they were easily available or could be manipulated.

#### **3.13.6 Confidentiality**

To ensure anonymity, the respondents were not asked their name but were allocated codes to identify them. The master list with the respondents' names and code number was kept separate from the data collected to protect the respondents' anonymity, while confidentiality was ensured by not sharing the information linked to the respondents' names with other individuals. The privacy of the respondents was ensured by making sure that no one else had access to the collected data except for the researcher. Consequently, no data or information were shared without the respondents' knowledge or against their will.

### **3.14 CHAPTER SUMMARY**

A quantitative, cross sectional analytic design was followed to determine and correlate factors associated with relapse among mentally ill patients in Oshana region. The study

sample comprised of 392 participants ( $n = 392$ ), who fully completed different self-administered and researcher-administered questionnaires, either the one in Oshiwambo or the one in English. This data gathering exercise was followed by content analysis. The principles of validity and reliability that were taken into consideration during the research process were discussed as well as the ethical issues. This included permission to conduct the study, respondents' protection, informed consent, and confidentiality. Chapter four focuses on data analysis and presentation of the study findings.

## **CHAPTER FOUR**

### **ANALYSIS OF RESULTS AND DATA PRESENTATION**

#### **4.1 INTRODUCTION**

Chapter three dealt with a description of the research design and methods. Chapter four presents the data analysis of the research findings based on the self-administered questionnaire by the caregivers and researcher administered questionnaire to the patients with mental illness who had come to collect their medication from Intermediate Hospital Oshakati, Oshana region. Data for this study were analysed using Statistical Package for Social Science (SPSS) 25.0 version for Windows. All the variables were entered numerically on SPSS spread sheet. The findings are presented according to the sections of the survey questionnaire used by the researcher to collect data, starting with the demographic variables of research respondents. This chapter uses descriptive statistics and inferential statistics to present the findings. Examples of descriptive statistics are frequencies and percentages while chi square test and cross tabs are examples of inferential statistics. Correlations were also done among variables to give a better picture of the research findings and to draw conclusions from the data. The questionnaire is attached as Appendix B.

The presentation of findings focused on the responses from care takers in Part A and patients in Part B. The findings from the data were analysed under the research objectives to be addressed as follows:

- Determine the factors the patients associate with relapse in mentally ill patients at Intermediate Hospital Oshakati;

- Determine the factors the caregivers associate with relapse in mentally ill patients at Intermediate Hospital Oshakati; and
- Analyse correlations between different factors associated with relapse in mentally ill patients at Intermediate Hospital Oshakati.

The following analysis and presentation of findings are organised according to the various sections that comprised the respondents' questionnaire. The questionnaire was divided into 4 sections, namely, Sections A, B, C and D which measured various themes as illustrated below:

**TABLE 2: DATA ANALYSIS**

<b>DATA ANALYSIS FOR CARE TAKERS</b>	
<b>Section A</b>	<b>Demographical Data</b>
<b>Section B</b>	<b>Factors Associated with Relapse</b>
<b>DATA ANALYSIS FOR PATIENTS</b>	
<b>Section A</b>	<b>Demographical Data</b>
<b>Section B</b>	<b>Factors Associated with Relapse Conclusion</b>

#### **4.2 RESPONSE RATE ACCORDING TO THE SCOPE OF THE STUDY**

A total number of three hundred and ninety-two (392) questionnaires were distributed to family caregivers and patients with mental illness who collect their medication from

Intermediate Hospital Oshakati, Oshana region. The table below shows the response rate and the percentage level of the responses.

**TABLE 3: RESPONSE RATE OF RESPONDENTS**

<b>Scope of study</b>	<b>No of Questionnaires</b>		<b>% Level of Response</b>
	<b>Distributed</b>	<b>Retrieved</b>	
Caregivers	196	196	100%
Patients	196	196	100%

#### **4.3 SAMPLE DESCRIPTION**

The researcher was the primary data collector in this study, with assistance from her colleagues in the hospital where the data were collected. A total of 392 respondents took part in the study. Respondents in this study were caregivers of patients with mental illnesses and patients suffering from mental illness who get their medicine from Intermediate Hospital Oshakati monthly. The researcher gathered information from the respondents which pertains to their sex, age, language, home place, marital status, and client income, which were among the variables used in the survey questionnaire to characterise the sample. The demographic information also includes the caregivers' connection to the patients, as well as their educational level and type of residence. The gender of the respondents is the first thing mentioned in the sample description.



## DATA ANALYSIS FOR CARE TAKERS

### SECTION A

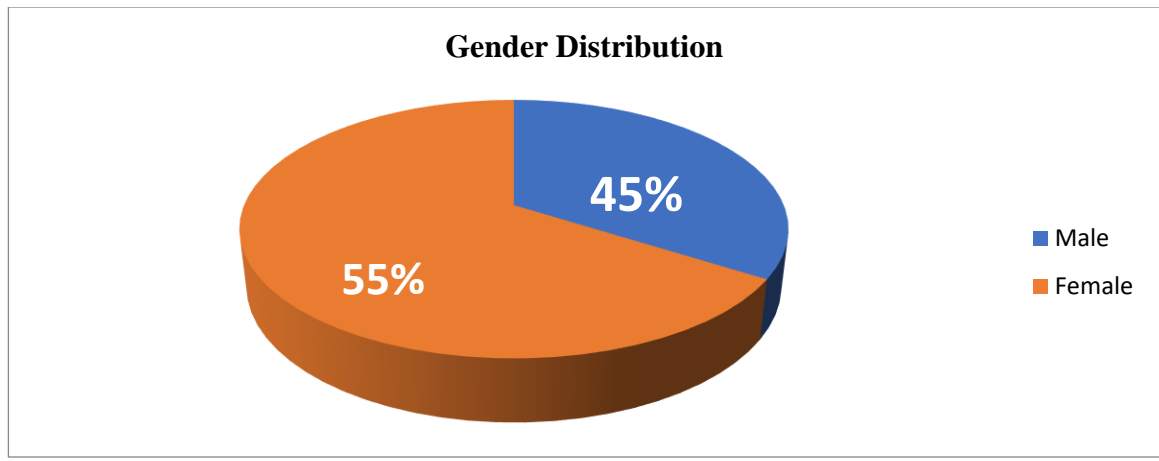
#### 4.4 DEMOGRAPHIC CHARACTERISTICS OF THE CAREGIVERS

##### 4.4.1 Gender

A total of 196 caregiver respondents participated in the study. Most of the respondents (n=108) 55% were females as compared to their male counterparts who were (n=88) 45%, and this is presented in table 2 below. The mean age of patients was  $34 \pm 11.5$  years with a representation of participants from all the age groups.

**TABLE 4: RESPONDENTS' GENDER**

Gender		
	Frequency	Percent (%)
Male	88	45%
Female	108	55%
<b>TOTAL</b>	<b>196</b>	<b>100</b>



**FIGURE 2:RESPONDENTS GENDER**

Results in Table 4 and Figure 2 above present the respondents' gender. Results indicated that 55 percent of respondents were females, and the 45 per cent were males.

#### **4.4.2 Age of caregivers**

**TABLE 5: RESPONDENTS' AGE**

Age	Frequency	Percentage (%)
20-29	49	25
30-39	39	20
40-49	88	45
55+	20	10
Total	196	100

**TABLE 5: RESPONDENTS' AGE**

Most respondents were aged at 40-49 with 45 % then 25% were aged from 20-29, followed by 30-39 at 20 %, and the lowest population was 10 percent aged over 50. Most of the respondents were under the age of 50 while the 40-49 age group had the highest respondents to the survey. Although the sample is not an absolute distribution reflection of the population, age groups 20-29 and 40-49 are representative of the study areas. The survey was random and impartial, with most of the population falling within the above-described age ranges.

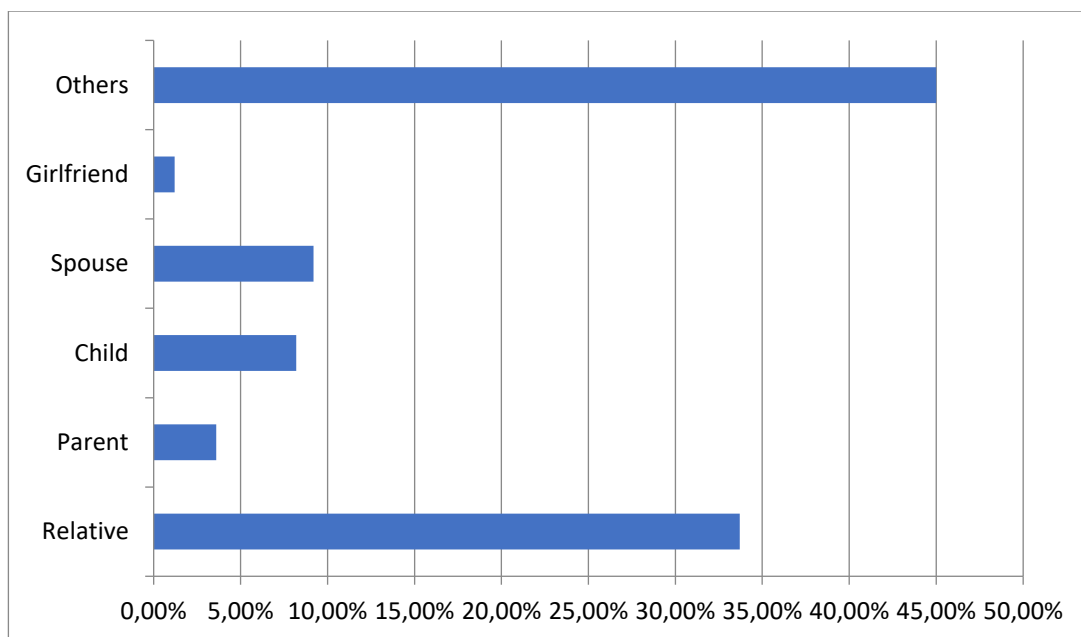
#### 4.4.3 Language spoken by respondent's caregivers

**TABLE 6: LANGUAGE SPOKEN BY CAREGIVERS**

Variable category	Caregivers	
Home language	Frequency	Percent (%)
Afrikaans	2	1.02
Damara>Nama	11	5.6
English	2	1.02
Oshiwambo	151	77.0
Shona	3	1.5
Otjiherero	15	7.7
Rukwangali	12	6.1
<b>TOTAL</b>	<b>196</b>	<b>100</b>

The survey instrument also assessed the home language spoken by the respondent's caregivers of the patients. It became clear from the data analysed that 77.0% of respondents spoke Oshiwambo whilst (n= 15) 7.7% spoke Otjiherero, an (n=12) 6.1% spoke Rukwangali. The rest of the respondents spoke Damara/Nama (n=11) 5.6% and Shona (n=3)1.5% respectively. English speaking respondents constitute only (n=2) 1.2%.

#### 4.4.4. Relationship of caregivers to the patients

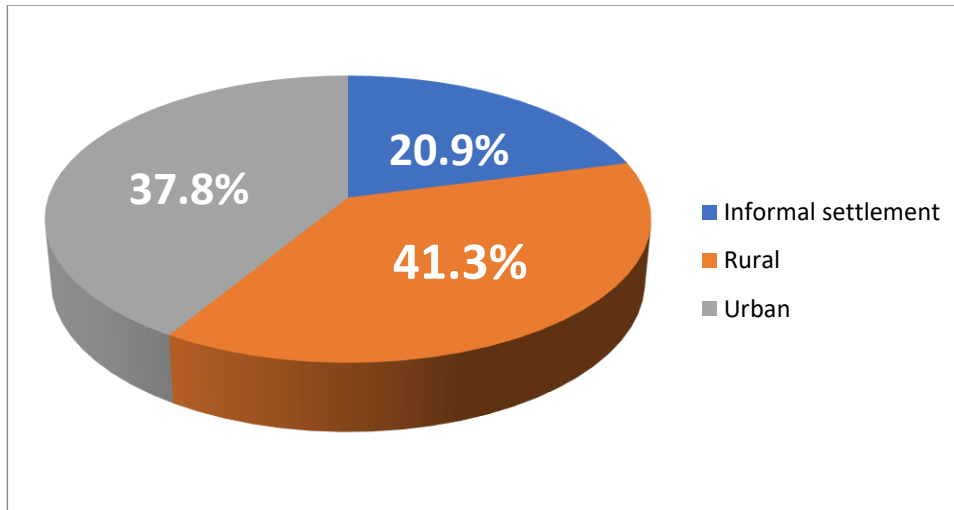


**FIGURE 3: RELATIONSHIPS OF CAREGIVERS TO PATIENTS**

The survey instrument assessed the relationship between the caregivers and patients who were interviewed and their relatives who were suffering from mental illness. It became clear that 33.7% (n=66) were relatives of the patients, 3.6% (n=7) of the respondents were parent to the patients, 8.2% (n=16) were child to the patients, another 1.2% (n=2) were girlfriend to the patients, 22.9% (n=45) other forms of relationship as well as others not

specified during the time of the survey. Figure 4 shows the distribution of respondents according to their relationship with the mentally ill clients.

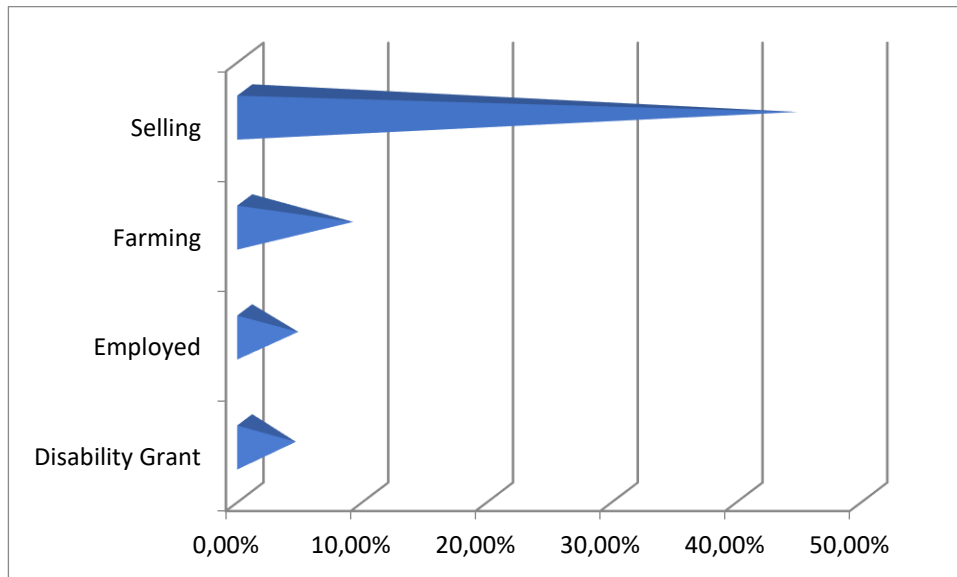
#### 4.4.5 Type of residential home for caregivers



**FIGURE 4: RESIDENTIAL HOME FOR CAREGIVERS**

The survey instrument also assessed the locality where respondents stayed in the Oshana region. It became clear from the analysis of data that the majority of research respondents were based in the rural areas at 41.3% (n=81) whilst 20.9% (n=41) were living in the informal settlement areas and 37.8% (n=.74) were living in urban areas.

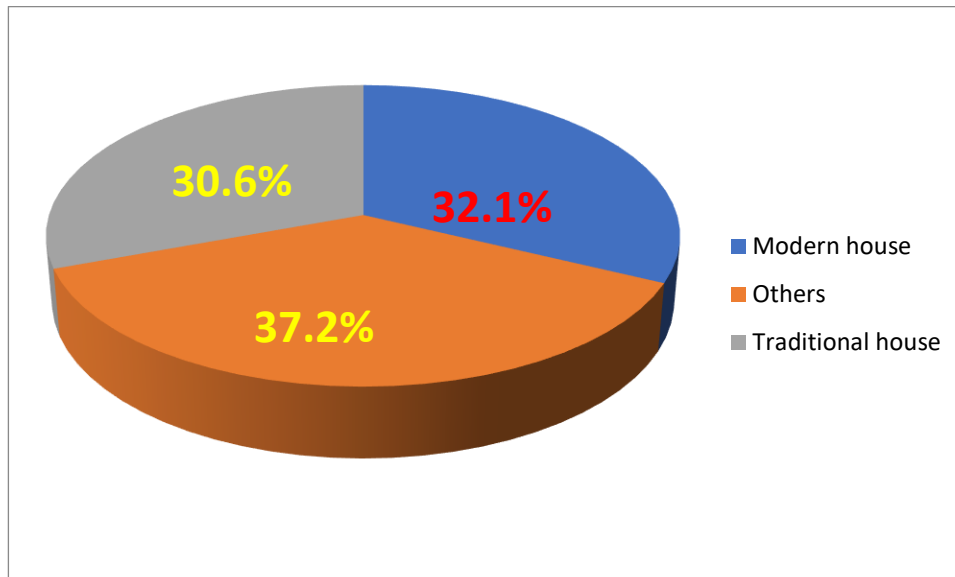
#### 4.4.6 Caregivers' source of income



**FIGURE 5: CAREGIVERS' SOURCE OF INCOME**

The researcher assessed the income of caregivers during data collection. The data analysis revealed that 4.1% (n=8) were depending on the disability grant as the source of income whilst 42.9% (n=84) were employed, 8.7% (n=17) were under farming, and 44.3% (n=87) were selling. The analysis clearly shows that most of the caregivers engaged in selling as their source of income.

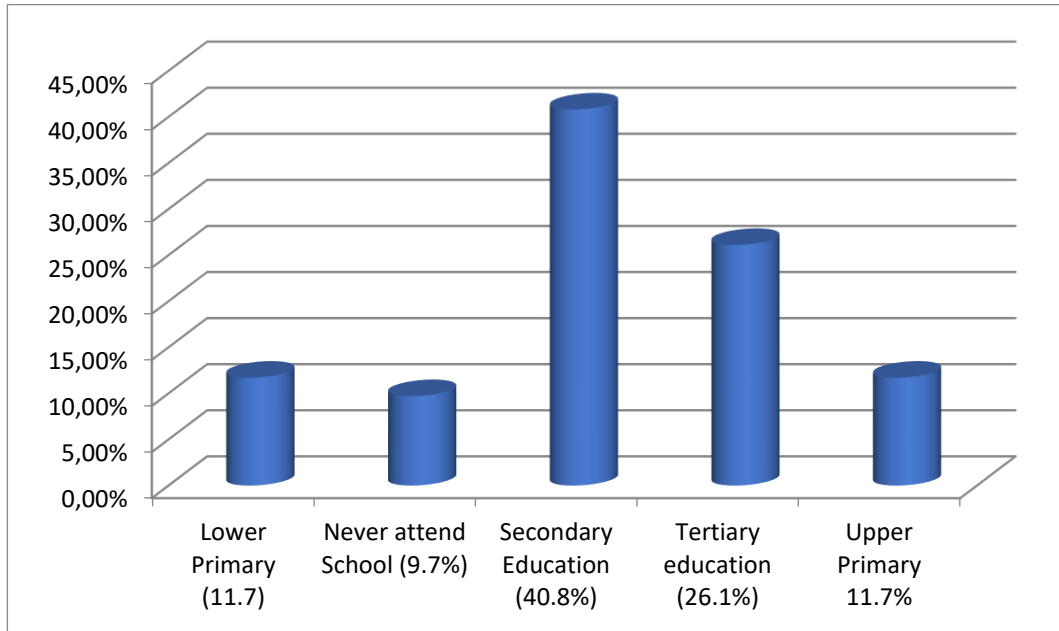
#### 4.4.7 Type of dwelling of caregivers



**FIGURE 6: TYPES OF DWELLING OF CAREGIVERS**

Coupled with income, the researcher also assessed the type of dwelling of the respondents in the study areas because some of them are poor and it might be difficult to afford accommodation. The findings of this study revealed that 32.1% (n=63) were living in modern houses which are of an acceptable living standard for accommodation in Namibia. About 37.2% (n=73) were living in traditional houses and only 30.6% (n=60) were living in other forms of houses.

#### 4.4.8 Educational level of caregivers

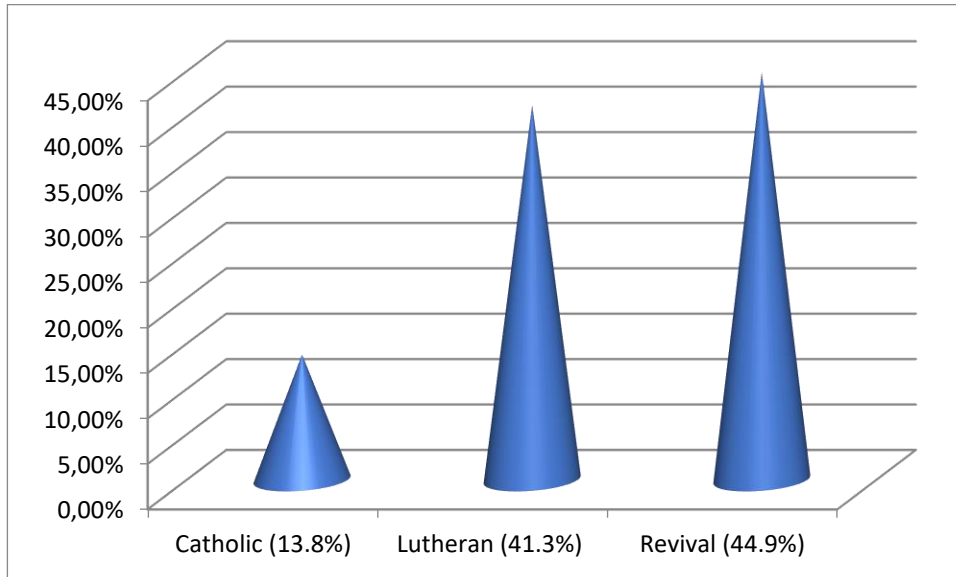


**FIGURE 7: EDUCATIONAL LEVEL OF CAREGIVERS**

Following the type of dwelling, it became necessary to assess the level of education of each respondent. The analysis of data revealed that 40.8% (n=80) attained secondary school education while 26.1% (n=51) went as far as tertiary education, 11.7% (n=23) attained lower and upper primary education respectively, while 9.7% (n=19) indicated that they had never been to school.



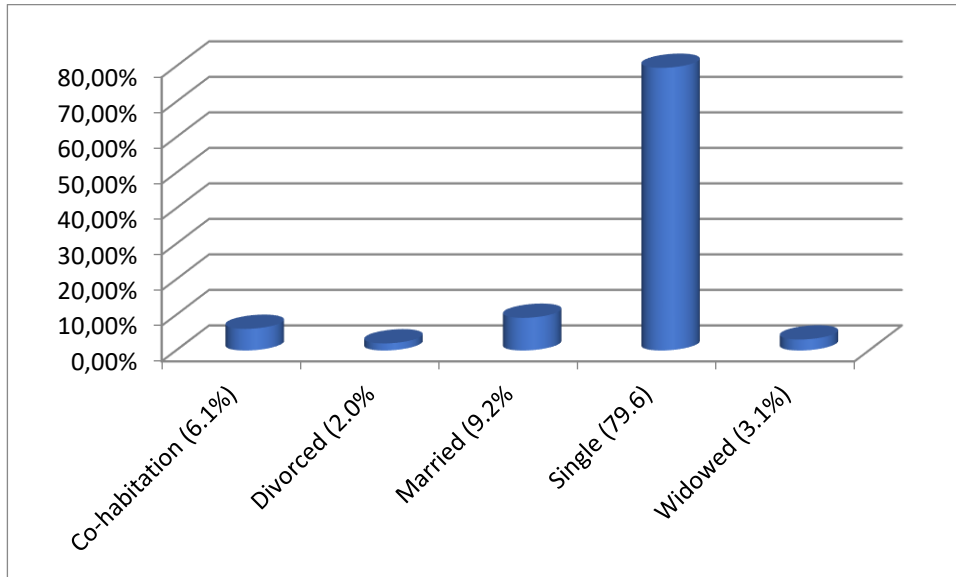
#### 4.4.9 Distribution of caregivers' religion



**FIGURE 8: CAREGIVERS' RELIGION**

The survey tool also assessed the religious affiliation of respondents. Many research respondents at 44.9% (n=88) were affiliated to the Revival Church, 41,3% (n=81) were members of the Lutheran Religious Beliefs, whilst 13.8% (n=15) were affiliated to the Catholic church. The popular movement among respondents in the study belongs to the revival churches.

#### 4.4.10 Marital status of caregivers

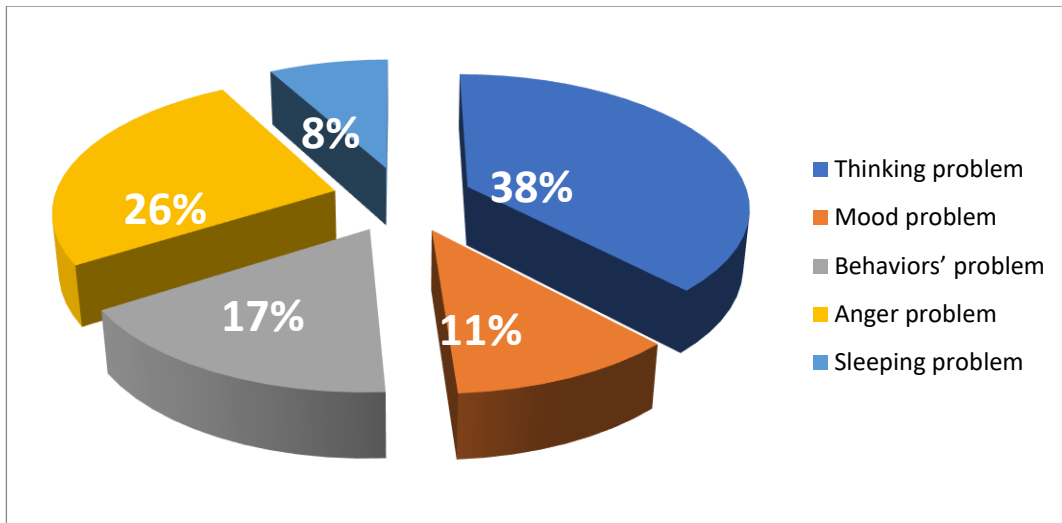


**FIGURE 9:MARITAL STATUS OF CAREGIVERS**

The analysis of data revealed that most research respondents were single at 79.6% (n=156) followed by those married who were represented at 9.2% (n=18). The data revealed that respondents that were divorced were 2.0% (n=4), the widowed accounted for 3.1% (n=6) and only 6.1% (n=12) indicated that they were co-habiting.

## 4.5 FACTORS ASSOCIATED WITH RELAPSE

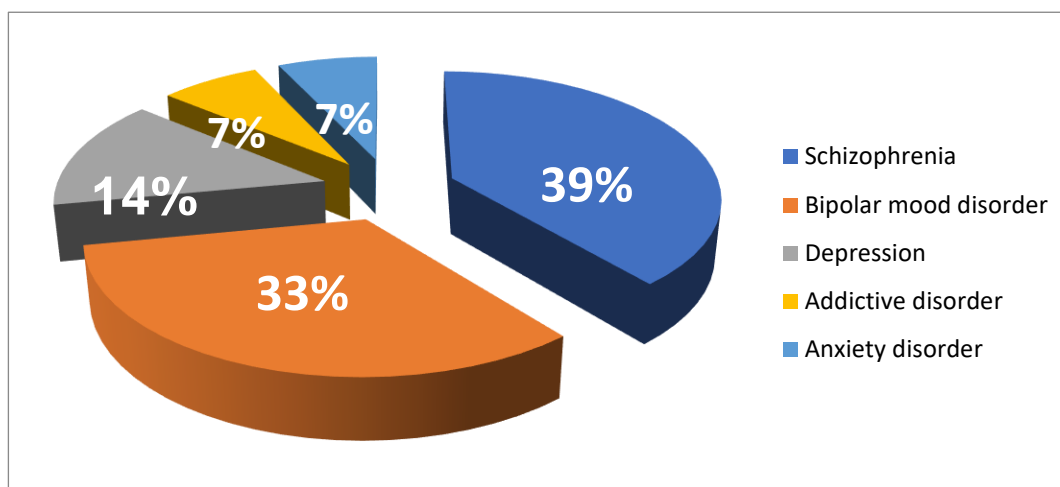
### 4.5.1 Knowledge of mental illness, treatment, and care



**FIGURE 10: CAREGIVERS' KNOWLEDGE OF HOW THEY UNDERSTAND MENTAL ILLNESS**

Most of the respondents (n=75) 38% had the understanding that mental illness is a thinking problem, followed by anger problem with (n=51) 26% and behaviour problem with (n=33) 17% respondents. However, some respondents understood that mental illness is a mood problem as indicated by (n=22) 11% respondents and a sleeping problem by (n=22) 8% respondents.

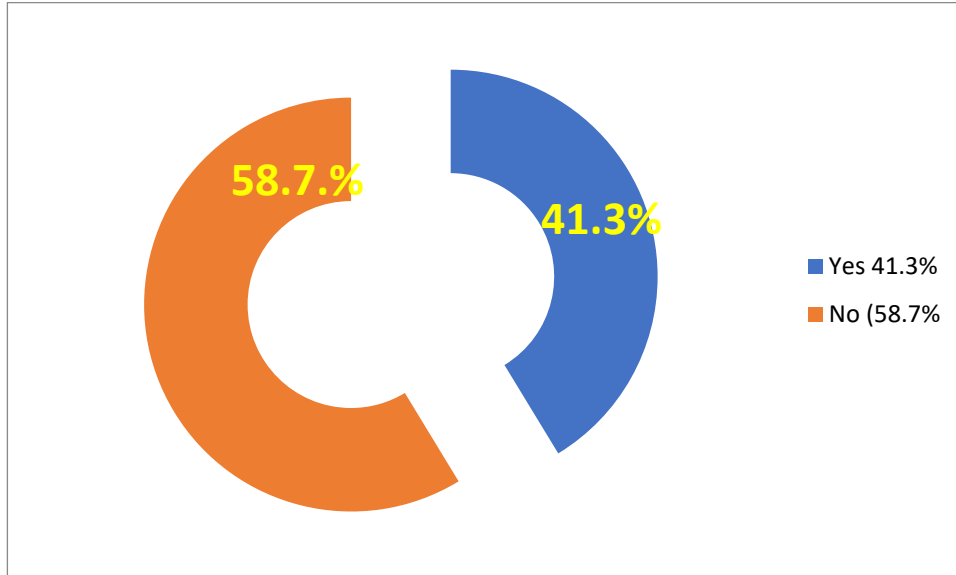
#### 4.5.2 Caregivers' knowledge on what type of mental illness their relatives are suffering from



**FIGURE 11: MENTAL ILLNESS DIAGNOSES ACCORDING TO CAREGIVERS**

Most of the respondents (152) 39% indicated schizophrenia as the diagnosis. A total of (n=128) 33% respondents indicated bipolar mood disorder as a diagnosis, followed by depression at (n=54) 14%, (n=28) 7% with addictive disorders while the least was anxiety disorder as the diagnosis with (n=28) 7%.

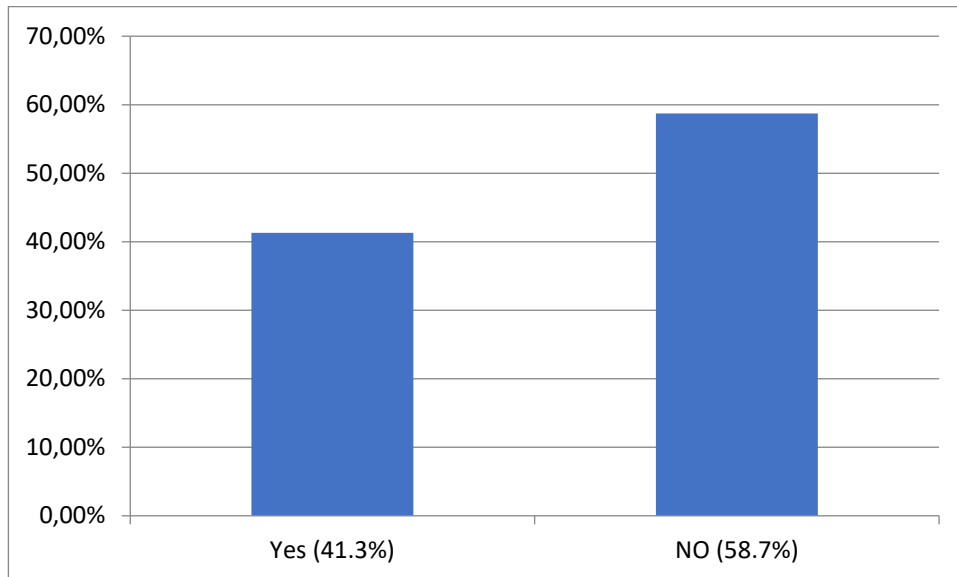
#### 4.5.3 Mentally ill patients can work like other people



**FIGURE 12: MENTAL ILL PATIENTS CAN DO WORK LIKE OTHER PEOPLE**

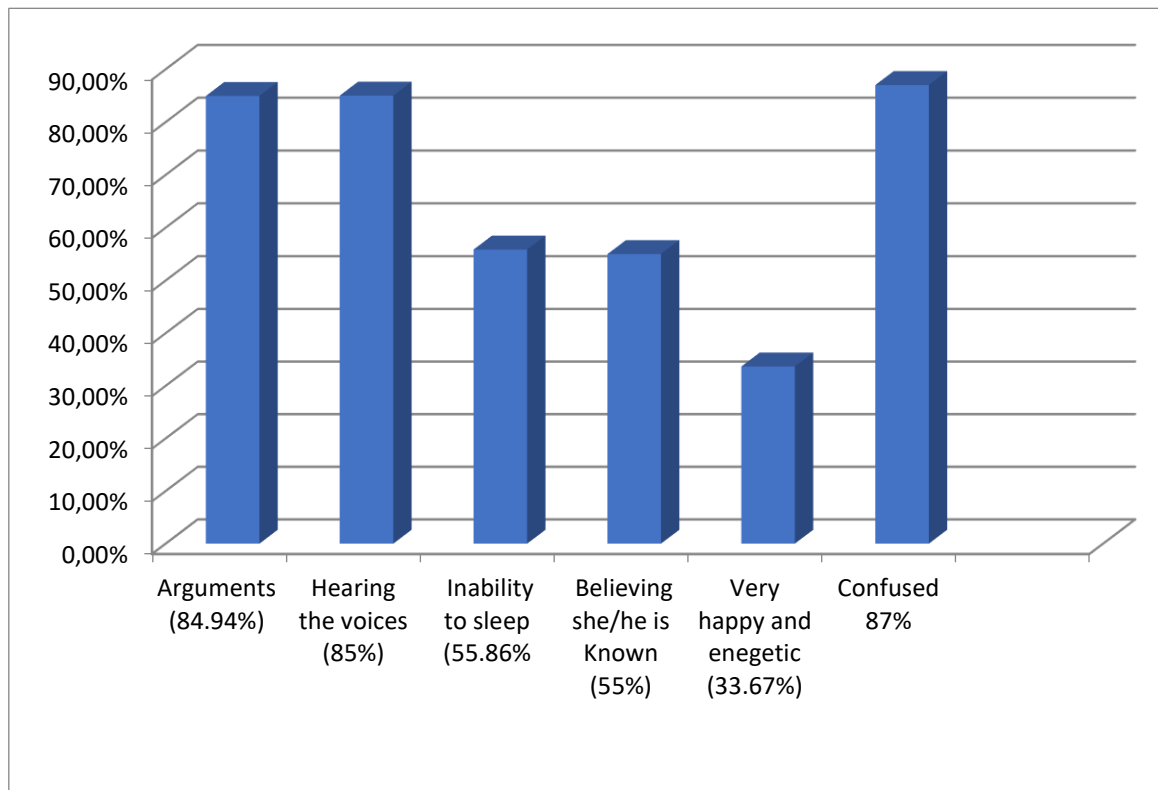
From the above figure it can be observed that 58.7% (n=115) of the respondents contended that mentally ill patients can work like other people, while 41.3% (n=81) believed that mentally ill patient can work like other people. Thus, from the figure, it can be observed that most of the respondents in this study believe that mentally ill patients can do all the work like other people.

#### 4.5.4 Mentally ill patients should take their medication for the rest of their lives



**FIGURE 13: MENTALLY ILL PATIENTS SHOULD TAKE MEDICATION FOR THE REST OF THEIR LIVES**

From the above study analysis, it can be observed that 58.7% (n=115) of the respondents stated that a mentally ill patient should not take medication for the rest of his/her life, while 41.3 % (n=81) believes that a mentally ill patient should take medication for the rest of his/her life. This means that a larger proportion of the respondents stated that a mentally ill patient should not take medication for the rest of his/her life.

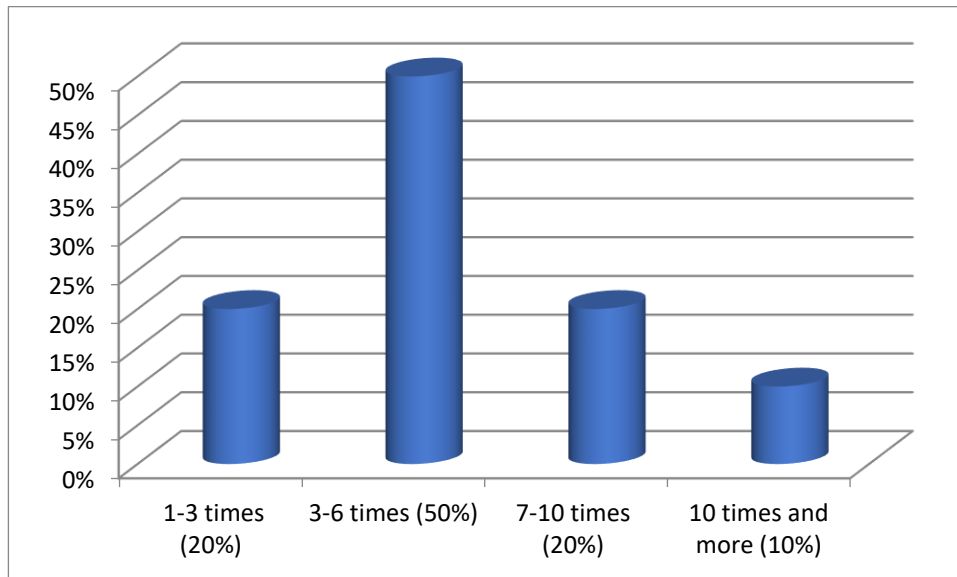


**FIGURE 15: WHICH SYMPTOMS EXPERIENCED**

#### **4.5.5 Which of the following symptoms did your relative experience?**

A total of 84.9% (n=166) of the respondents agreed that the mentally ill patients are argumentative while 85% (n=166) equally agreed that mentally ill patients have a problem of hearing strange voices, whereas 55.86% (n= 108) of respondents agreed that their mentally ill patients have a sleeping problem. A total of 55% (n=108) of the respondents agreed that the mentally ill patients believe that he or she is well known, 33.67% (n= 67) agreed that the mentally ill patients are always very happy and full of energy, whereas 87% (n=174) of the respondents agreed that the patients are always confused.

#### 4.5.5 Frequency of admission of relative due to mental illness in the past three years

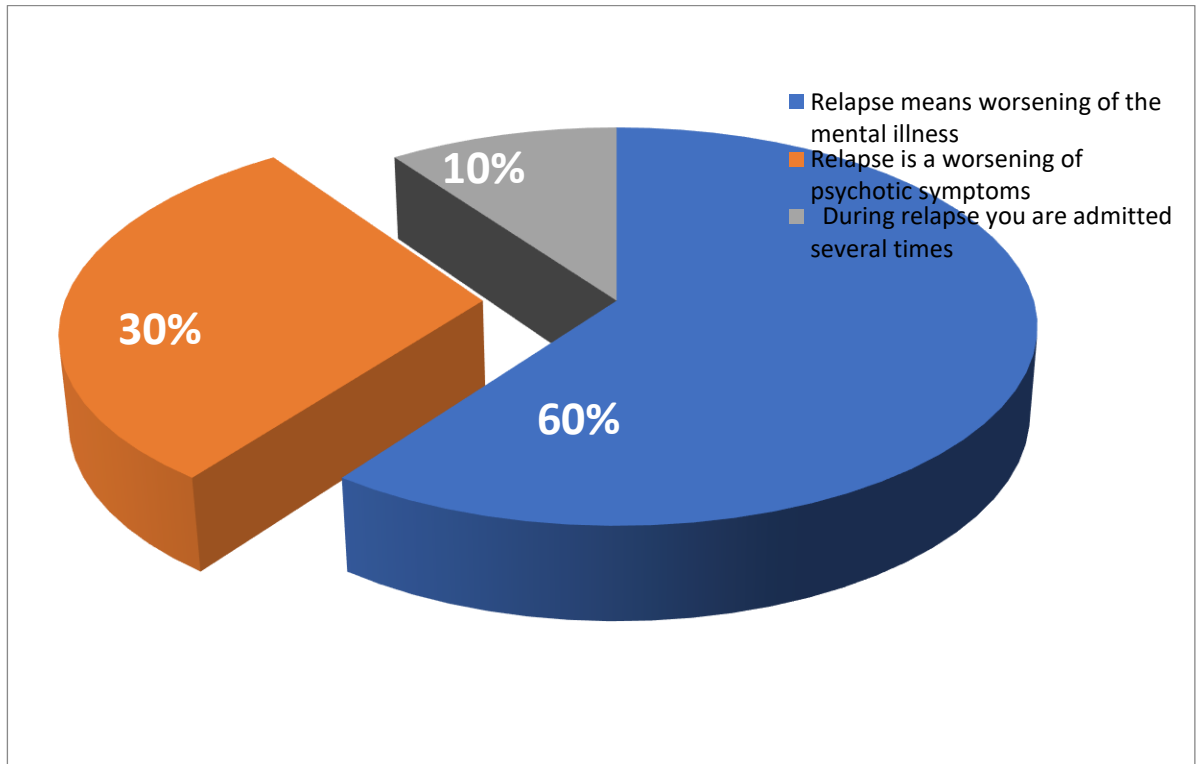


**FIGURE 15: FREQUENCY OF ADMISSION WITH A MENTAL ILLNESS IN THE PAST THREE YEARS**

From the above figure, it can be observed that 50.0% (n=98) of the respondents show that the mentally ill patients were admitted in the hospital between 3-6 times in the past 3 years, while 20.0% (n=39) of the respondents showed that mentally ill patients were admitted in the hospital for between 7-10 times and 1-3 times respectively in the past 3 years; whereas 10.0% (n=30) of the respondents equally showed that mentally ill patients were admitted in the hospital for between 3-6 times in the past 3 years. Thus, from the figure, it can be observed that most of the respondents of the study indicated that their mentally ill patients were admitted in the hospital for 1-3 times in 3 years.



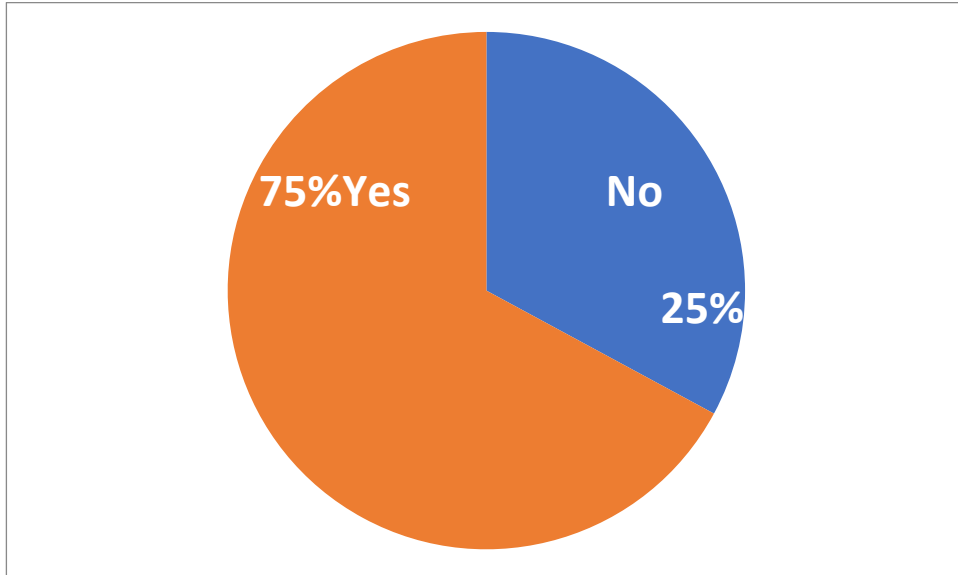
#### 4.5.6 Understanding of caregivers of the word relapse



**FIGURE 16: UNDERSTANDING OF CAREGIVERS OF THE WORD RELAPSE**

From the above figure, it can be observed that 60.0% (n=118) of the respondents understood the word relapse as the worsening of the mental illness, while 30.0 % (n=59) understood relapse as psychotic symptoms and 10.0% (n=20) believe that relapse is being admitted in the hospital for several times.

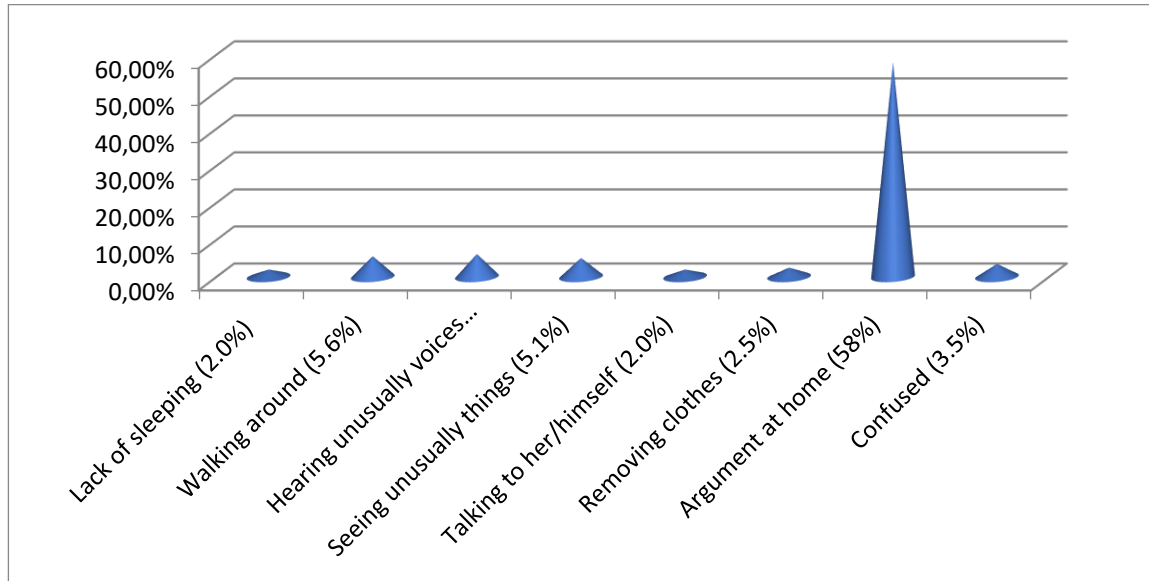
#### 4.5.7 Do you think the mentality ill patients have relapse?



**FIGURE 17: DO YOU THINK HE/SHE RELAPSED?**

From the above figure it can be observed that most caregivers admitted that the mentally ill patients have relapsed. This is shown by the result of 75% (n=147) who responded with a yes with the reason provided being not taking medication. Some had different reasons for stating that they had relapsed, while some had no reason as to why they think they relapsed, however 25% (n=49) of the respondents answered that they do not think that they have relapsed.

#### 4.5.8 Symptoms experienced during relapse.



**FIGURE 18: SYMPTOMS EXPERIENCED BY YOUR RELATIVE WHEN RELAPSING**

According to the results, 2% (n=4) of the respondents indicated that those who are mentally ill experience lack of sleep, 5.6% (n=11) agreed that the mentally ill experience walking around while 2% (n=4) reported hearing unusual voices. A total of 5.1% (n=10) and 2.0% (n=4) of the respondents reported that mentally ill patients display episodes of seeing unusual things and talking to her/himself as the symptoms whenever he/she is admitted. Moreover, 2.5% (n=5) displayed symptoms such as removing their clothes while 58% (n=114) demonstrated their illness through having some arguments at home. Lastly 8.5% (n=17) of the respondents showed the symptom of being confused.

**MEDICATIONS KNOWLEDGE, TYPE, DOSES, SIDE EFFECTS, ADHERENCE, ACCESSIBILITY AND AVAILABILITY**

**4.5.9 Which medication is the patient currently taking (guided by patient's health passport)**

**TABLE 7: MEDICATIONS PATIENTS ARE CURRENTLY TAKING**

Caregivers/Which medications is he/she currently taking?	Frequency of medication	Percentage
Amitriptyline	4	2.05%
Carbamazepine	1	0.51%
Carbamazepine, haloperidol, Biperiden	1	0.51%
Chlorpromazine, Biperiden	2	1.03%
Chlorpromazine, Biperiden, Modecate injection	8	4.10%
Chlorpromazine, Biperiden, Modecate injection	3	1.54%
Chlorpromazine and Biperiden	10	5.13%
Clozapine, Biperiden	2	1.03%
Fluanxol injection	1	0.51%

Fluoxetine	1	0.51%
Fluoxetine	20	10.26%
Fluoxetine, Biperiden	4	2.05%
Haloperidol	2	1.03%
Haloperidol, Biperiden	1	0.51%
Haloperidol, Carbamazepine, Biperiden	1	0.51%
Haloperidol, Biperiden	1	0.51%
Haloperidol, Biperiden	28	14.36%
Haloperidol, Biperiden, Carbamazepine	3	1.54%
Haloperidol, Biperiden, Modecate injection	21	10.77%
Haloperidol, Biperiden, Sodium valproate	3	1.54%
Haloperidol, Carbamazepine, Biperiden	1	0.51%
Haloperidol, Modecate injection	1	0.51%
Haloperidol, Modecate injection, Biperiden	1	0.51%
Haloperidol, Sodium Valproate, Biperiden	2	1.03%
Haloperidol, Biperiden	1	0.51%
Lithium carbonate	2	1.03%

Lithium carbonate, Haloperidol	1	0.51%
Lorazepam	5	2.56%
Lorazepam, Haloperidol, Biperiden	2	1.03%
Lorazepam, Thiamine	1	0.51%
Psychotherapy	1	0.51%
Risperidone, Biperiden	1	0.51%
Risperidone, Sodium valproate, Biperiden	2	1.03%
Sodium Valproate	44	22.56%
Sodium valproate, Haloperidol, Biperiden	1	0.51%
Sodium Valproate, Haloperidol, Biperiden	2	1.03%
Sodium Valproate, Haloperidol, Biperiden	8	4.10%
Sulpiride, Biperiden	2	1.03%
TOTAL	196	100.00%

Table 7 present caregivers' response as to which medication their patients are taking, and majority indicated Sodium Valproate with a total of 22.56% (n=44) followed by 28 14.36% (n=28)) on Haloperidol, 10,77% (n=21) on Haloperidol, Biperiden and Modecate injection, then 10,26% (n=20) on fluoxetine, while 83 42.3% (n=83) indicated others which represents a different combination of medication and single medication.

**TABLE 8: DISTRIBUTION OF FACTORS ASSOCIATED WITH RELAPSE ACCORDING TO CAREGIVERS**

<b>VARIABLE CATEGORY</b>	<b>FREQUENCY</b>	<b>PERCENT (%)</b>	<b>EXACT 95% LCL</b>	<b>EXACT 95% UCL</b>
<b>REASONS FOR STOPPING MEDICATION</b>				
<b>Forgot medication somewhere</b>	4	2.33	0.64	5.85
<b>Missed follow up date</b>	24	13.95	9.15	20.05
<b>No</b>	21	12.21	7.26	20.59
<b>Others</b>	3	1.74	0.15	7.34
<b>Recovered</b>	109	63.37	55.70	70.57
<b>No medicine at the hospital</b>	4	2.33	0.64	5.85
<b>Sleeping too much</b>	7	4.07	1.65	8.21
<b>PROBLEM WITH COLLECTING MEDICATION</b>				
<b>No</b>	70	40.70	33.28	48.44
<b>Yes</b>	2	1.16	0.14	4.14
<b>Laughter by other people</b>	7	4.07	1.65	8.21

<b>No taxi money</b>	38	22.09	16.13	29.04
<b>No medication at the clinic</b>	8	4.65	2.03	8.96
<b>Sleeping too much</b>	11	6.40	3.24	11.15
<b>Long queue at the hospital</b>	1	0.58	0.01	3.20
<b>Hospital is far</b>	35	20.35	14.60	27.15
<b>STOPPED MEDICATION DUE TO SIDE EFFECTS</b>				
<b>No</b>	19	11.05	6.33	19.23
<b>Others</b>	12	6.81	2.17	13.10
<b>Tremors</b>	43	25.00	18.72	32.16
<b>Sleeping too much</b>	56	32.56	25.62	40.11
<b>Weight gain</b>	37	21.51	15.62	28.41
<b>Salivating and dry mouth</b>	7	4.07	1.65	8.21

There are various clinical related factors and sub factors that may directly or indirectly contribute to mental illness relapse among the patients at the Intermediate Hospital Oshakati. A descriptive analysis was conducted on various factors.

There are various reasons as to why patients stopped taking medication. Even though mental illness is a chronic or lifelong illness, the majority (n=103) 63% of the mentally ill

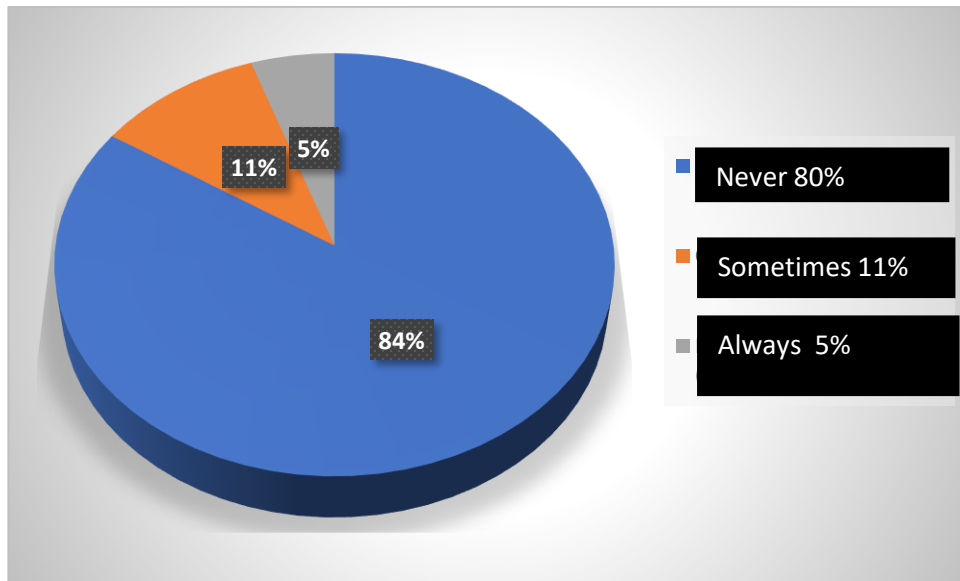


patients stopped taking medication because they believed that they were healed from the illness.

This was followed by the missing of follow up dates with (n=24) 14% responses and the least were others with (n=3) 2%. Moreover, there are patients who had challenges that hindered them from progressively collecting their medication monthly. Among those factors or challenges was lack of transport money for travelling to and from the hospital which was the most dominant as represented by (n= 38) 22% respondents, the hospital being far as represented by (n=35) 20% respondents, while sleeping too much was indicated by (n=11) 6% respondents. There were various medical side effects that influenced mentally ill patients to stop taking medication. Amongst the side effects, most of the patients who stopped taking medication were those who were sleeping too much as indicated by (n=56) 33% respondents, tremors with (n= 43) 25% and weight gain with (n=37) 22%.

## SUPPORT SYSTEM AVAILABILITY, QUALITY, AND IMPACT ON CAREGIVERS

### 4.5.10 How often people encourage patients to stop their medication



**FIGURE 19: HOW OFTEN PEOPLE ENCOURAGE PATIENTS TO STOP THEIR MEDICATION**

The findings of this study revealed that 80% (n=156) of the respondents revealed that the mentally ill patients have never been encouraged to stop medication. About 10% (n=20) and 5% (n=10) of the respondents stated that the mentally ill patients were sometimes and always encouraged to stop medication.

#### 4.5.11 Type of support they get from home

**TABLE 9: TYPE OF SUPPORT THEY RECEIVED AT HOME**

<b>WHICH SUPPORT DO YOU GOT AT HOME?</b>	<b>FREQUENCY</b>	<b>PERCENT</b>
Encouragement to take medication	43	21.94
Food	15	7.65
Taking me to the hospital	17	8.68
Transport money	121	61.73
Total	196	100%

Table 9 shows that (n=128) 61.73% of the caregivers responded that they get transport money as a form of support from home, followed by (n=43) 21.94% of the respondents that get encouragement to take medications, (n=15) 7.65% get food as a form of support, and (n=17) 8.68 % patients are taken to the hospital as indicated by the respondents.

#### 4.5.12 Necessity to cope with mental illness

**TABLE 10:NECESSITY TO COPE WITH MENTAL ILLNESS**

<b>NECESSITY TO COPE WITH MENTAL ILLNESS</b>	<b>Frequency</b>	<b>Percentages</b>
Counselling	26	13.3

Employment	62	31.6
Money	79	40.3
Others	26	13.3
Prayer	4	2.0
Respect	2	1.0

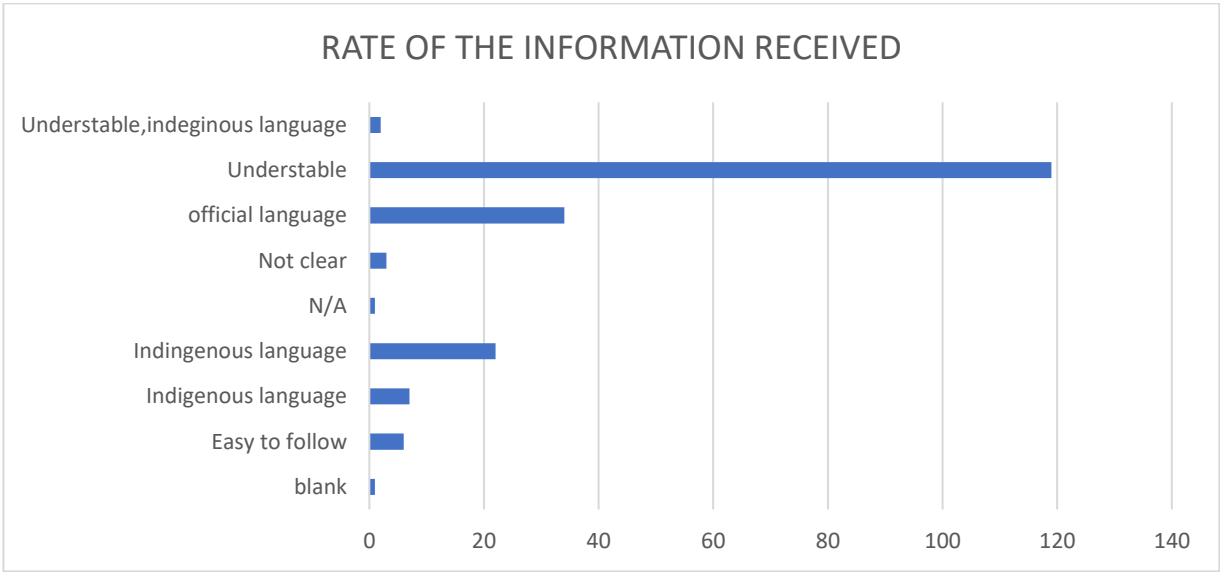
A total of (n=79) 40.3% of the respondents indicated that their patients need money to cope with mental illness and (n=62) 31.6% indicated that they need employment and (n=26) 13.3% indicated other needs. However, (n=26) 13.3% respondents and (n=4) 2% respondents showed that they needed counselling and prayers respectively, while the least needed support service was respect with (n= 3 ) 1.5% having indicated thus.

#### **4.5.13 Information received**

**TABLE 11: INFORMATION RECEIVED**

Topic	Yes	No
Mental illness	79 (40.31%)	117 (59.69%)
Signs and symptoms of relapse	7 (3.57%)	189 (96.43%)
Medication and its side effects	107(54.59%)	89 (45.41%)
Follow up and its importance	183 (93.36%)	13 (6.64%)

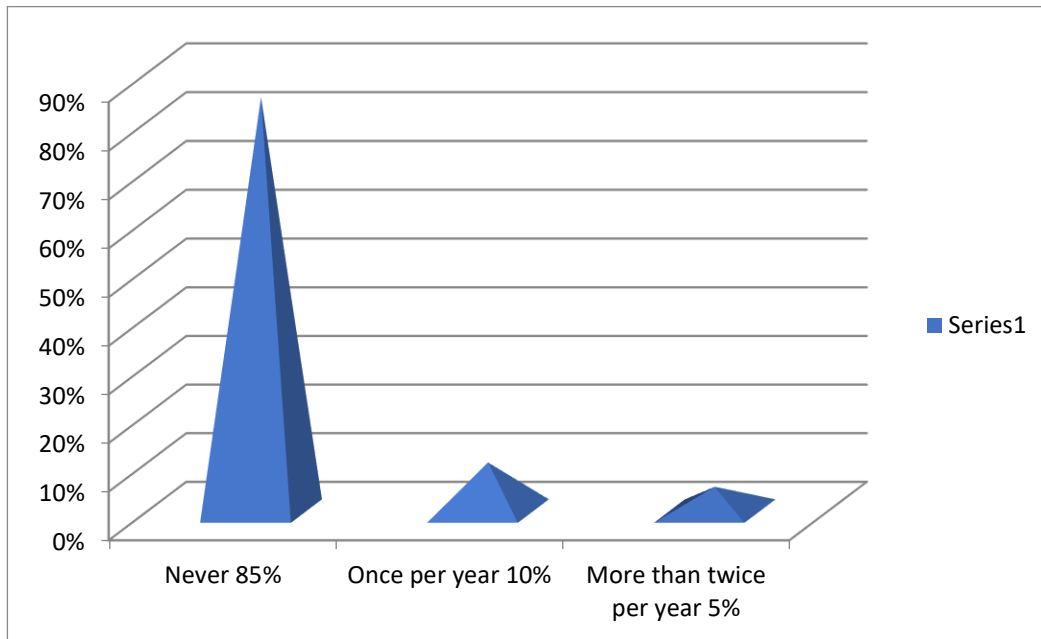
The table above shows that patients indicated that most of the patients received information on follow up and its importance, followed by medications and its side-effects, then mental illness and only 3.57% received information on the signs and symptoms of relapse.



**FIGURE 20: HOW WAS THE INFORMATION RECEIVED?**

The figure shows that a total number of 60.7% (n=119) caregivers found the information to be understandable, 18.3% (n=36) caregivers found the information to be in an official language, while 11.2% (n=22) indicated that it was in their indigenous language. However, 4% (n= 8) found the information to be easy to follow and 2% (n=4) found it to be unclear.

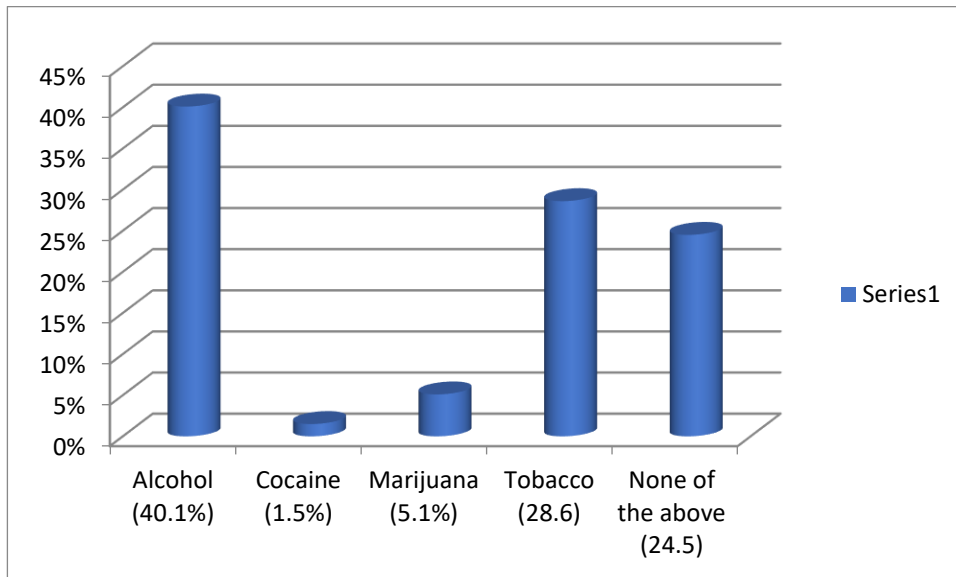
#### 4.5.14 Frequency of visit by the mental health nurse to the patient's home



**FIGURE 21: FREQUENCY OF VISIT BY THE MENTAL HEALTH NURSE TO PATIENT'S HOME**

The findings of this study revealed that 80% (n=166) of the respondents stated that the mentally ill patients were never visited at home by a mental health nurse. About 10% (n=20) of the respondents stated that the mentally ill patients had been visited at home by a mental health nurse once per year, while 5% (n=10) of the respondents stated that they were visited more than twice per year.

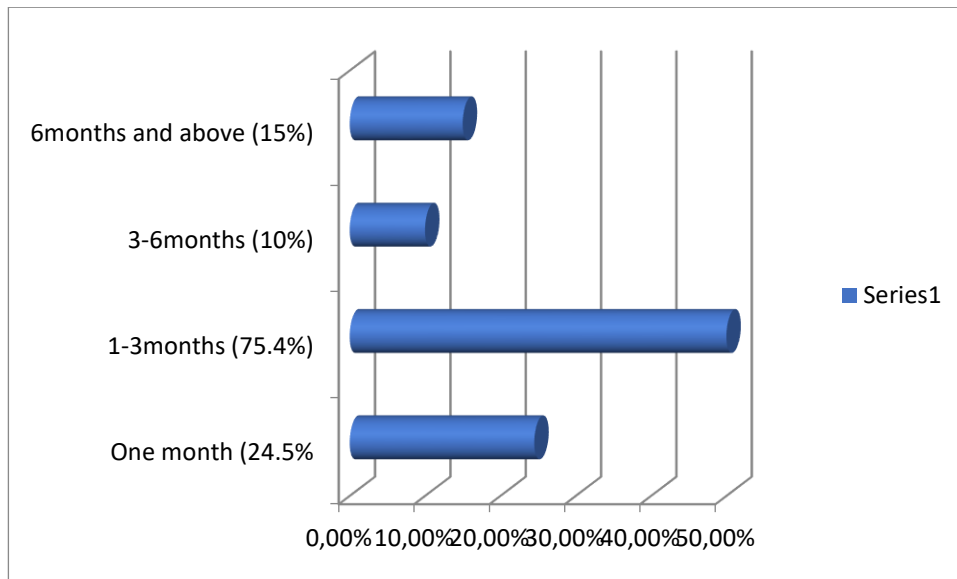
#### 4.5.15 Which type of substance the patient mostly uses



**FIGURE 22: WHICH SUBSTANCE DOES THE PATIENT MOSTLY USE?**

According to the caregivers, as depicted in figure 23, the majority of respondents (n=79) 40.1% indicated that alcohol is the most common substance used by mentally ill patients, followed by none and tobacco use with (n=48) 24.5% respondents and (n=56) 28.5% respondents respectively.

#### 4.5.16 How long it takes for patients to relapse after taking the above-mentioned substance



**FIGURE 23: HOW LONG IT TAKES FOR PATIENTS TO RELAPSE AFTER TAKING THE ABOVE-MENTIONED SUBSTANCE**

The findings of this study revealed that 75.4% (n=146) of the respondents stated that it takes 1-3 months to be admitted or to visit a hospital with psychotic symptoms after taking the above-mentioned substance, while 24.5% (n=48) showed one month. The analysis equally shows that 10% (n=20) and 15% (n=25) respectively for a period 3-6 months, and 6 months and above before a mentally ill patient is admitted or visits a hospital with psychotic symptoms after taking the above-mentioned substance.



## **CORMOBIDITY**

### **4.5.17 Any other illness apart from mental illness**

**TABLE 12: ANY OTHER ILLNESS APART FROM MENTAL ILLNESS**

<b>COMORBIDITIES</b>	<b>Frequency</b>	<b>Percentage</b>
Cancer	11	5.6
Diabetes mellitus	3	1.5
Epileptic	10	5.1
HIV	130	66.3
Hypertension	14	7.1
None	26	13.2
Others	2	1.2

The majority representing those who participated in the study stated that the mentally ill patients suffered from HIV, and others from medical conditions as additional illnesses apart from mental illness. A total of (n=130) 66.3% of the respondents suffered from HIV, while (n=14) 7.1% suffered from hypertension. A total of (n=11) 5.6% had cancer, (n=10) 5.1% had epilepsy, (n=3) 1.5% had diabetes mellitus, (n=2) 1.2% had other illness, and (n=26) 13.2% had no additional illnesses.

## **PSYCHOSOCIAL STRESSORS**

### **4.5.18 Frequency of social factors/ situations that mentally ill patients had gone through before relapse according to caregivers**

**TABLE 13: FREQUENCY OF SITUATIONS MENTALLY ILL PATIENTS HAD GONE THROUGH BEFORE ADMISSION**

<b>FACTORS</b>	<b>FREQUENCY</b>	<b>PERCENTAGE (%)</b>
Bullying	3	1.5
Death of a close relative	32	16.3
Discrimination	18	9.2
Divorce/ breakup	9	4.6
Financial problems	27	13.8
Physical abuse	6	3.1
Psychological abuse	7	3.6
Unplanned pregnancy	1	0.5
None	93	47.4
<b>TOTAL</b>	<b>196</b>	<b>100</b>

Table 13 shows that the majority (n=93) 47.4% of the patients had not gone through a situation before they relapsed, according to their caregivers. However, (n=32) 16% had experienced the death of a close relative before relapse, followed by financial problems with (n=27) 13.8%, while only (n=1) 0.5% had gone through a stressful situation of unplanned pregnancy before relapse.

## DATA ANALYSIS FOR PATIENTS

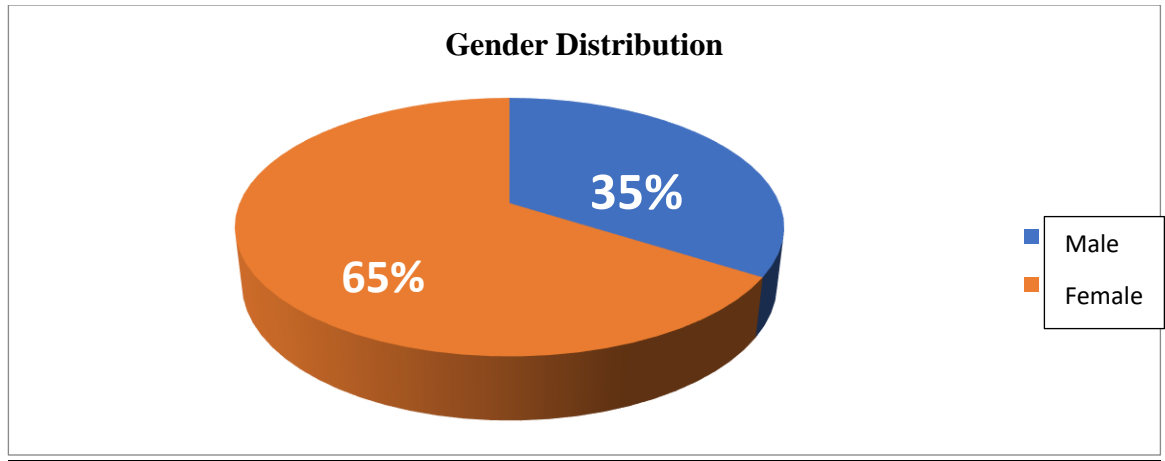
### 4.6 DEMOGRAPHIC CHARACTERISTICS OF THE PATIENTS

#### 4.6.1 Gender

The findings of this study revealed that a total of 196 patients participated in the study. Many respondents (n=127) 65% were females as compared to their male counterparts who were (n=69) 35% as presented in Table 14 below.

**TABLE 14: RESPONDENTS' GENDER**

	Gender	
	Frequency	Percent
Male	69	35%
Female	127	65%
<b>TOTAL</b>	<b>196</b>	<b>100</b>
		.



**FIGURE 24: GENDER DISTRIBUTION**

Results in Table 14 and Figure 25 above presents respondents' gender. Results indicate that sixty-five (65) percent of respondents were female, and the remaining thirty-five (35) percent were male.

#### **4.6.2 Age of respondents of patients**

**TABLE 15: RESPONDENTS' AGE**

Age	Frequency	Percent
20-29	88	45
30-39	39	20
40-49	49	25
55+	20	10
<b>Total</b>	<b>169</b>	<b>100</b>

Most of the respondents were aged from 20-29 at 25 per cent, followed by the 30-39 category at 20 per cent, 40-49 category at 45 per cent and the lowest population was 10 percent for those over 50 years of age. Much of the sample was under the age of 50 while the 20-29 age group had the highest respondents to the survey. Although the sample is not an absolute distribution reflection of the population, age groups from 20-29 and 30-39 were representative of the study areas. The survey was random and impartial, with most of the population falling within the above-described age ranges.

#### **4.6.3 Language spoken by respondents**

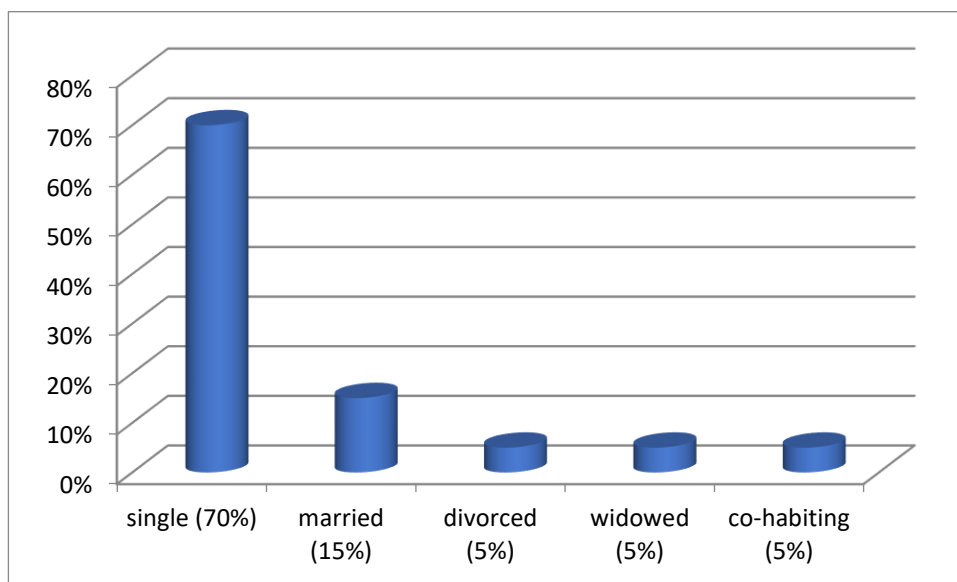
**TABLE 16: LANGUAGE SPOKEN BY RESPONDENTS**

<b>Home language</b>	<b>Frequency</b>	<b>Percent (%)</b>
Afrikaans	2	1.2
Damara/Nama	11	5.6
English	14	8.3
Oshiwambo	139	70.9
Shona	3	1.5
Otjiherero	15	7.7
Rukwangali	12	6.1
<b>TOTAL</b>	<b>196</b>	<b>100</b>

The research instrument also assessed the home language spoken by the respondents the patients. It became clear from the data analysed that 70.9% (n=139) of respondents spoke

Oshiwambo whilst 7.7% (n=15) spoke Otjiherero, and 6.1% (n=12) spoke Rukwangali. The rest of the respondents spoke Damara>Nama (5.6% (n=11) and Shona 1.5% (n=3) respectively. English speaking respondents constituted only 8.3% (n=14) and Afrikaans 1.2% (n=2). The explanation given for the availability of people speaking Otjiherero and Rukwangali in the rural Oshana region was that some of them were married to Oshiwambo speaking people and some were working in these rural areas, whereas some were patients who had been referred from Kunene region and Oshikoto region (See table 16 for the distribution of respondents according to the spoken language).

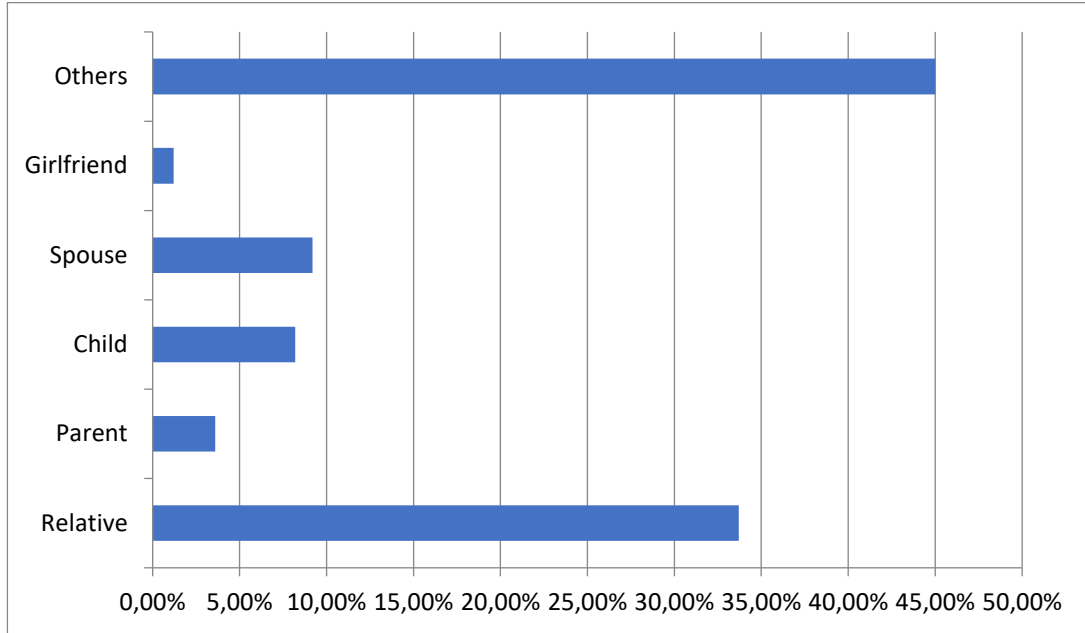
#### 4.6.4 Marital status of the patients



**FIGURE 25: MARITAL STATUS OF RESPONDENTS**

The analysis of data revealed that most of the research respondents were single as represented by 70% (n=137) followed by those who are married who represented 15% (n=29). The data revealed that the respondents that were divorced were 5% (n=10), the widowed accounted for 5% (n=10) and only 5% (n=10) indicated that they were co-habiting. Figure 26 depicts the distribution of respondents according to marital status.

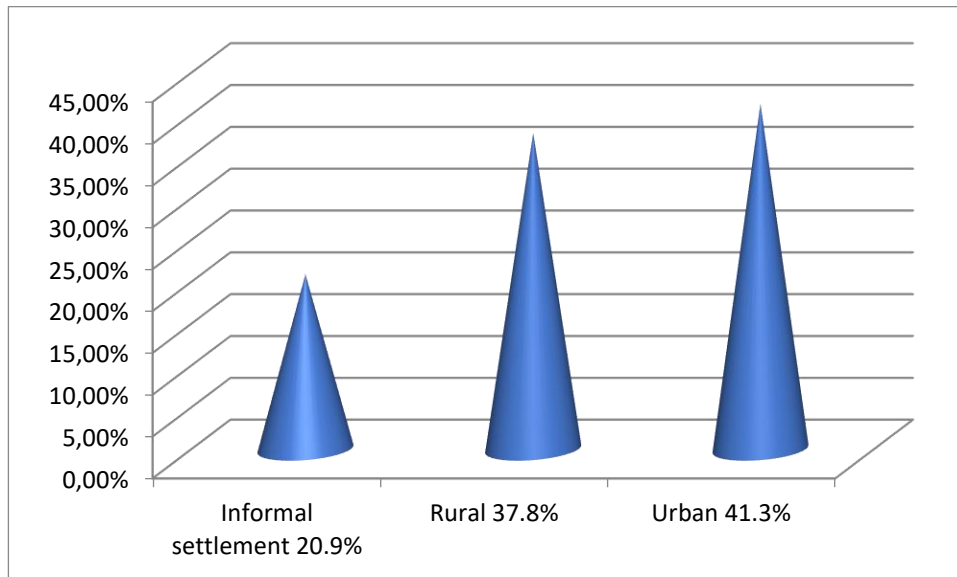
#### 4.6.5 Relationship of patient to the caregivers



**FIGURE 26: RELATIONSHIPS OF PATIENTS TO CAREGIVERS**

The research instrument also assessed the relationship between the patients and caregivers who were interviewed and their relatives who were taking care of them. It became clear that 40% (n=78) of them were relatives with parents, 5% (n=10) were parents to the patients, 10% (n=19) were children to the patients, another 20% (n=39) were girlfriends to the patients, and 25% (n=49) other forms of relationship not specified during the time of the study.

#### 4.6.6 Respondents' home

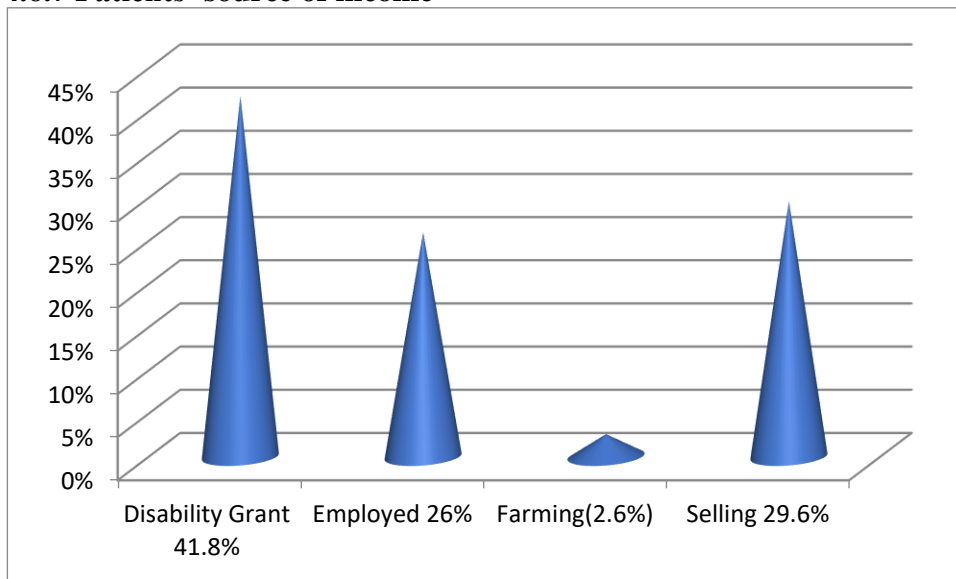


**FIGURE 27: RESPONDENTS' HOME**

Apart from the age, the tool also assessed the locality where respondents stayed in Oshana region. It became clear from the analysis of the data that most of the respondents were based in the rural areas as represented by 37.8% (n=74) whilst 20.9% (n=41) were living in the informal settlement areas and 41.3% (n=81) were living in urban areas.



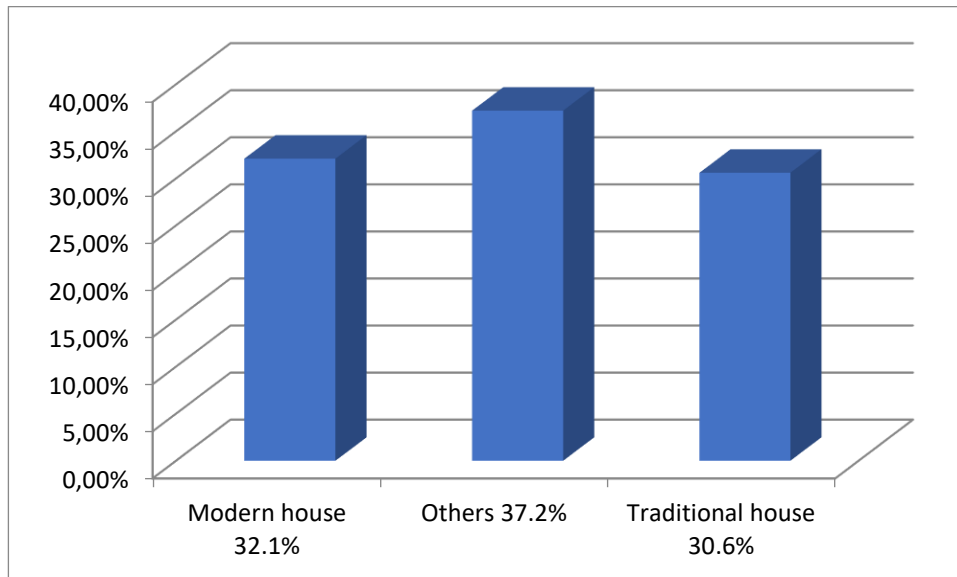
#### 4.6.7 Patients' source of income



**FIGURE 28: PATIENTS' SOURCE OF INCOME**

It became necessary to assess the income of clients during data collection. The data analysis revealed that 41.8% (n=82) of them were depending on the disability grant as the source of income whilst 26% (n=51) were employed, 2.6% (n=5) were under farming, and 29.6% (n=58) were selling various products as their source of income. The analysis shows that many of the patients were depending on the social grant as their major source of income.

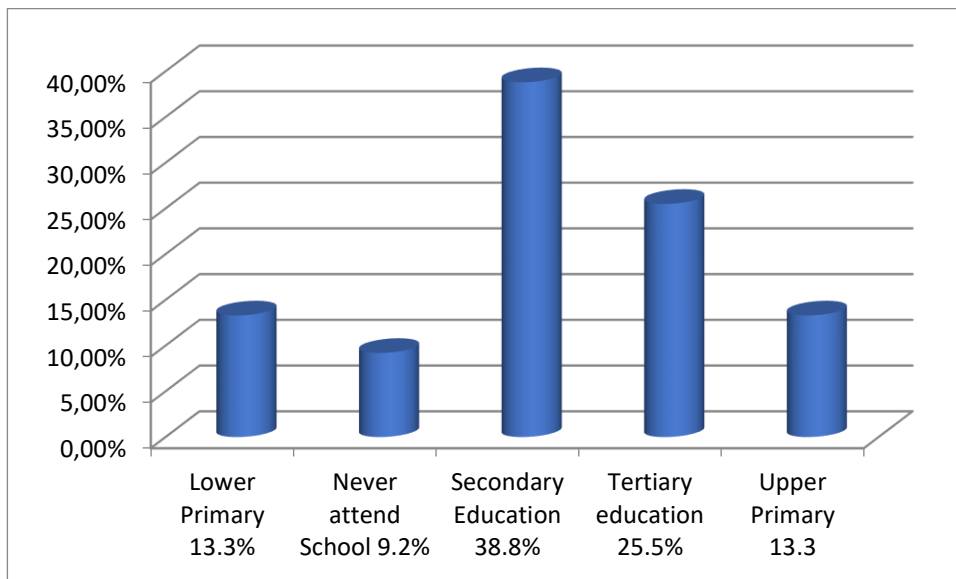
#### 4.6.8 Type of dwelling for patient



**FIGURE 29: TYPE OF DWELLING FOR PATIENT**

The findings of this study revealed that 32.1% (n=63) of the patients were living in modern .houses which are an acceptable standard of accommodation in Namibia. About 37.2% (n=73) were living in traditional houses and only 30.6% (n=60) were living in other forms of houses.

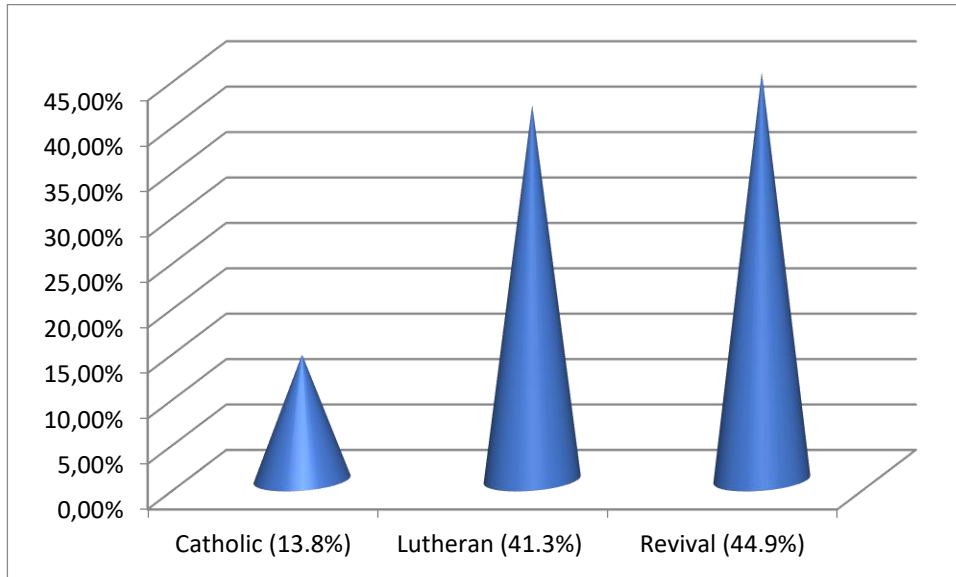
#### 4.6.9 Educational level of patients



**FIGURE 30: EDUCATIONAL LEVEL OF PATIENTS**

Following the type of dwelling, it became necessary to assess the level of education of each respondent. The analysis of data revealed that 38.8% (n=76) attained secondary school education as far as grades 6-12, whereas 25.5% (n=50) went as far tertiary education, 13.3% (n=26) attained lower and upper primary education respectively, while 9.7% (n=19) indicated that they had never been to school.

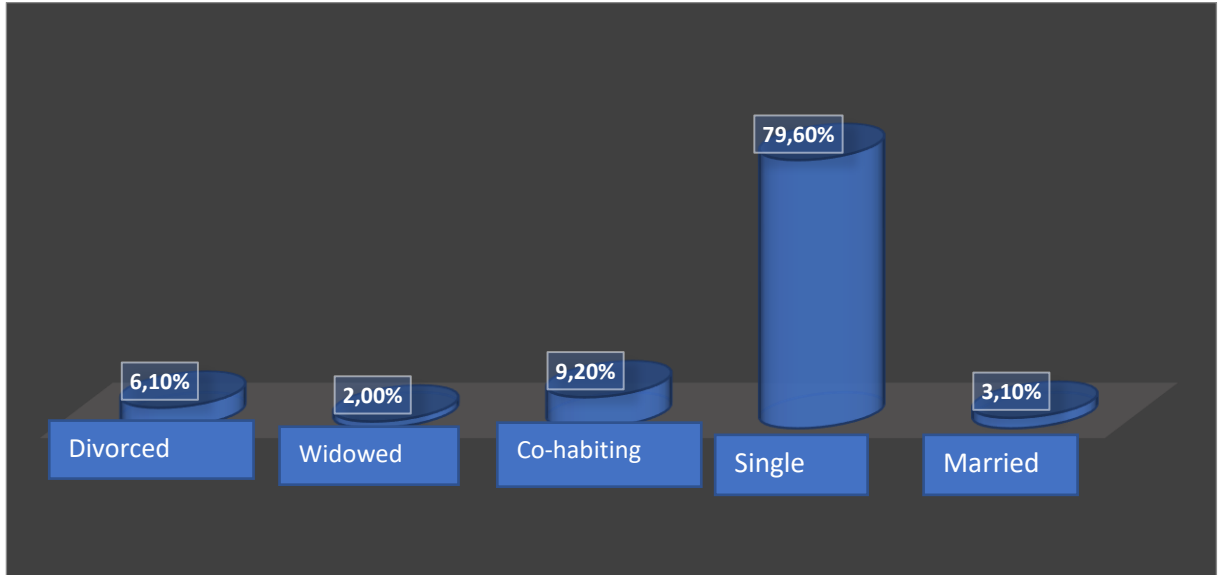
#### 4.6.10 Distribution of patients' religion



**FIGURE 31: DISTRIBUTION OF PATIENTS' RELIGION**

Patients who indicated same religion as their caregiver at 44.9% (n=88) were affiliated to the Revival Churches, 41, 3% (n=81) were members of the Lutheran Religious denomination, whilst 13.8% (n=15) were affiliated to the Catholic church. The results indicate that most of the respondents in the study belonged to the Revival Churches.

#### 4.6.11 Marital status of patients



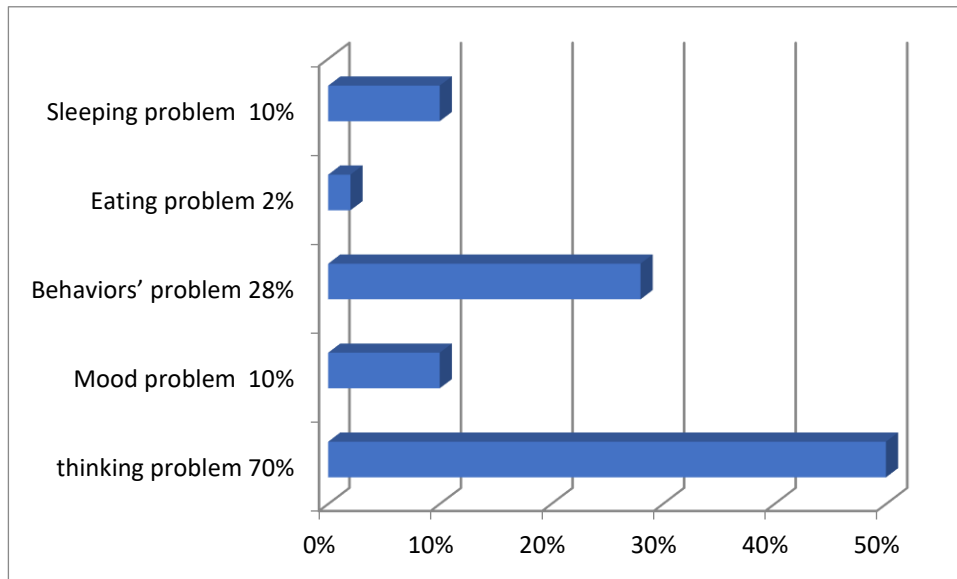
**FIGURE 32: MARITAL STATUS OF PATIENTS**

The analysis of data revealed that many patients were single 79.6% (n=156) followed by those who were co-habiting with their partners who represented 9.2% (n=18). The data revealed that some respondents that were widowed 2.0% (n=4), married accounted for 3.1% (n=6) and only 6.1% (n=12) indicated that they divorced.

## FACTORS ASSOCIATED WITH RELAPSE

### Knowledge of mental illness, treatment, and care

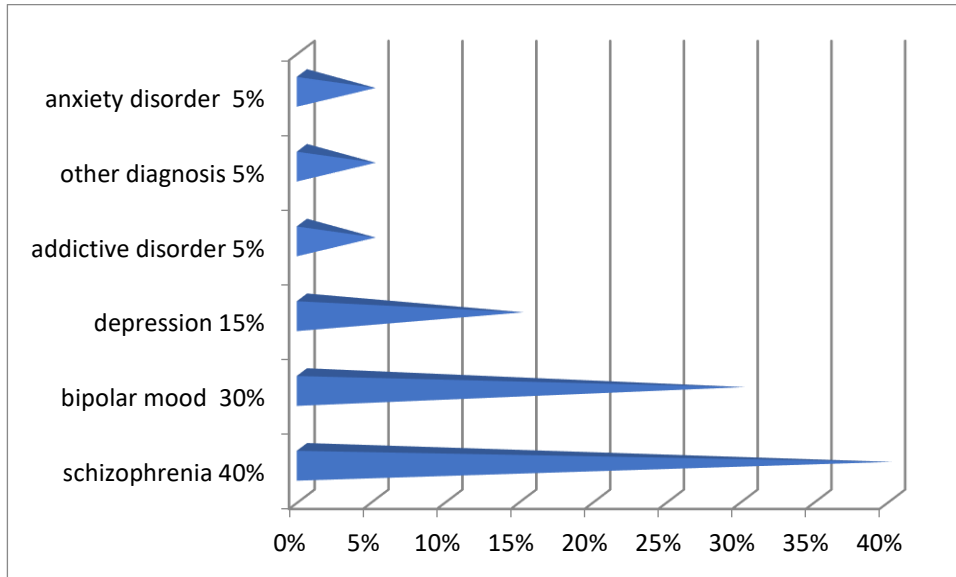
#### 4.6.12 Definition of mental illness



**FIGURE 33: DEFINITION OF MENTAL ILLNESS**

Most of the respondents (n=137) 70% have the understanding that mental illness is a thinking problem, followed by behaviour problem with (n=54) 27.55% of the respondents. However, some respondents understand that mental illness is caused by mood problems (n=19) 9.45%, sleeping problem (n=19) 10% and eating problem (n=3.9) 2%.

#### 4.6.13 Type of mental illness patient suffering from



**FIGURE 34: TYPE OF MENTAL ILLNESS PATIENT SUFFERING FROM**

Most of the respondents (n=78) 40% indicated schizophrenia as the diagnosis. A total of (n=58) 30% indicated bipolar mood disorder as a diagnosis, followed by depression with (n=30) 15% , (n=10) 5% with addictive disorder, (n=10) 5% with other diagnosis, while the least was anxiety disorder as the diagnosis with (n=10) (5%).

#### 4.6.14 Answer with a yes or no

**TABLE 17: ANSWER FOR YES OR NO**

	Patient	
	Frequency	Percent
<b>Mental illness cannot be treated</b>		
YES	42	21.0
NO	154	78.6

<b>Mentally ill patients can do all types of work like other people</b>		
YES	143	73.0
NO	53	27.0
<b>A mentally ill patient should take medication for the rest of his/her life</b>		
YES	81	41.3
NO	115	58.7

From the above table, it can be observed that 78.6% (n=154) of the respondents contended that mental illness cannot be treated, while 21% (n=42) believe that mental illness can be treated. Thus, from the table, this shows that most of the respondents in this study believed that mental illness cannot be treated.

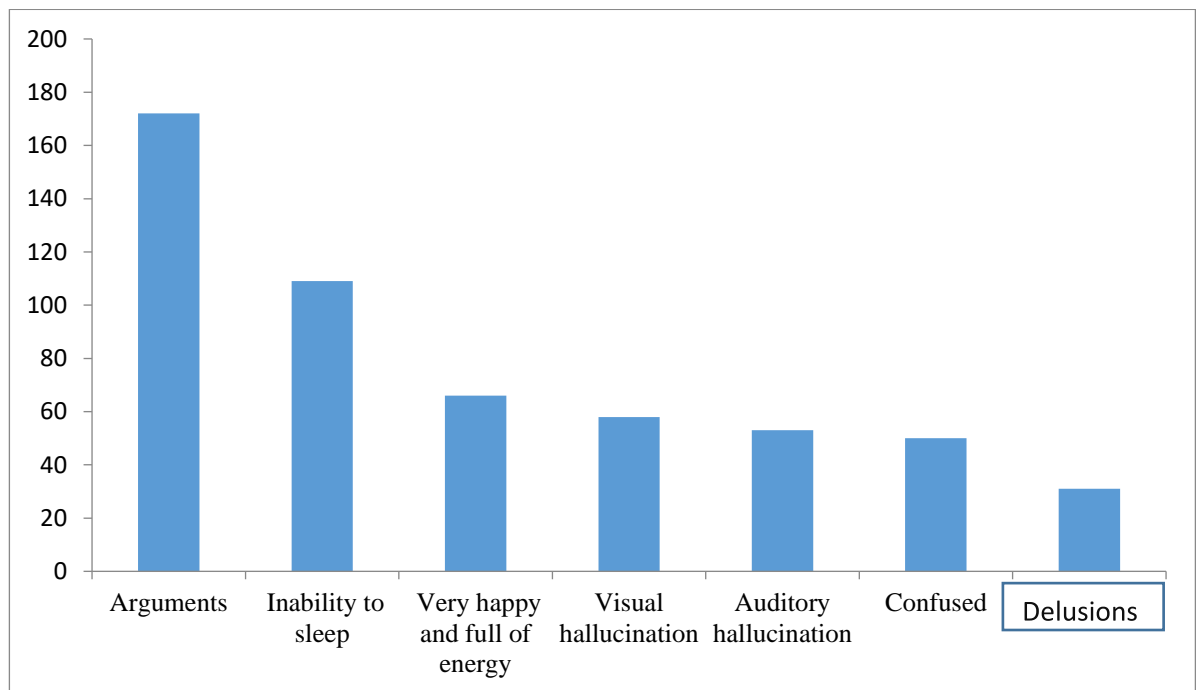
From Table 17 it can be observed that 73.6% (n=143) of the respondents contended that a mentally ill patient can do all the forms of work like other people, while 27% (n=53) believed that a mentally ill patient cannot do all forms of work like other people. Thus, from the table, it can be shown that most of the respondents in this study believed that a mentally ill patient can do all forms of work like other people. This is demonstrated in Table 17 above.

From the above study analysis, it can be observed that 58.7% (n = 115) of the respondents stated that a mentally ill patient should not take medication for the rest of his/her life,



while 41.3% (n = 81) believe that a mentally ill patient should take medication for the rest of his/her life. This means that a larger proportion of the respondents believes a mentally ill patient should not take medication for the rest of his/her life.

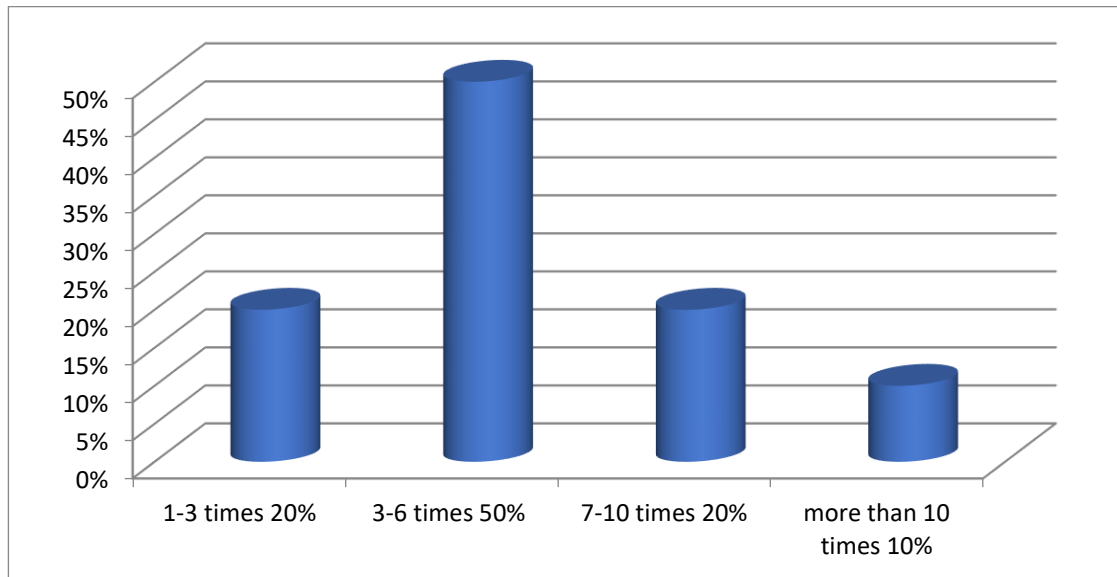
#### 4.6.15 Symptoms experienced by the patient



**FIGURE 35: SYMPTOMS EXPERIENCED BY THE PATIENT**

Figure 36 shows that 84.9% (n=166) of the respondents agree that the mentally ill have an argument problem, while 85% (n=166) equally agree that the mentally ill have the problem of hearing strange voices, whereas 55.86% (n= 108) of respondents agree that their mentally ill patients have a sleeping problem. A total of 55% (n=108) of the respondents agree that the mentally ill patient does not believe that he or she is known well, 33.67% (n= 67) agree that the mentally ill people are always very happy and full of energy, whereas 87% (n=174) of the respondents agree that the client is always confused.

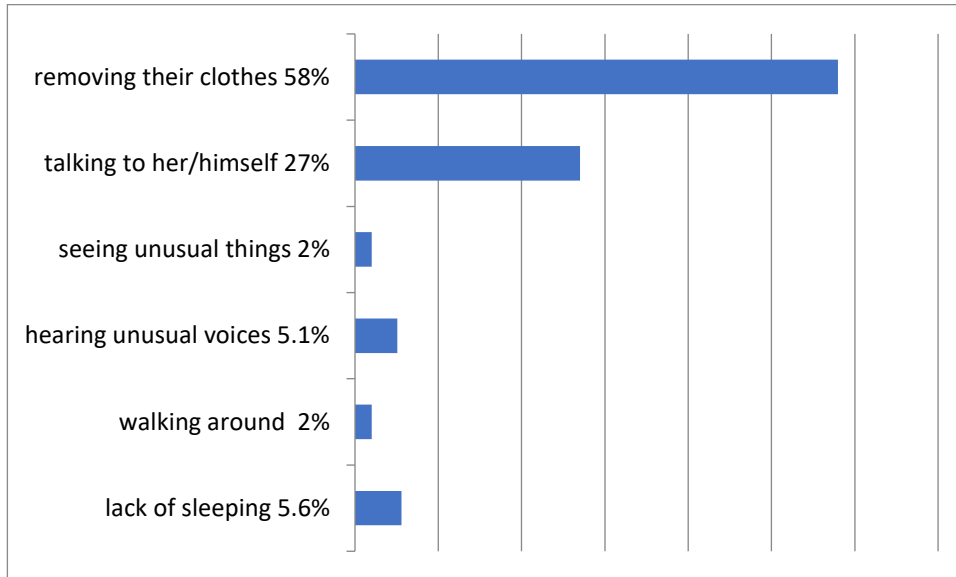
#### 4.6.16 Treatment history and admission



**FIGURE 36: FREQUENCY OF ADMISSION DUE TO MENTAL ILLNESS IN THE PAST THREE YEARS**

From the above figure, it can be observed that 50.0% (n=98) of the respondents showed that they had been admitted in the hospital for between 3 and 6 times in the past 3 years due to non-adherence to treatment follow-ups, while 19.2% (n=39) of the respondents show that they had been admitted in the hospital for between 7 and 10 times due to lack of finances, and 1-3 times respectively in the past 3 years due to substance taking. Whereas 15.1% (n=30) of the respondents equally show that they have been admitted in the hospital for between 3 and 6 times in the past 3 years as a result of alcohol intake. Thus, from the figure, it has been shown that most of the respondents in the study indicated that they were admitted in the hospital for 1 and 3 times in 3 years.

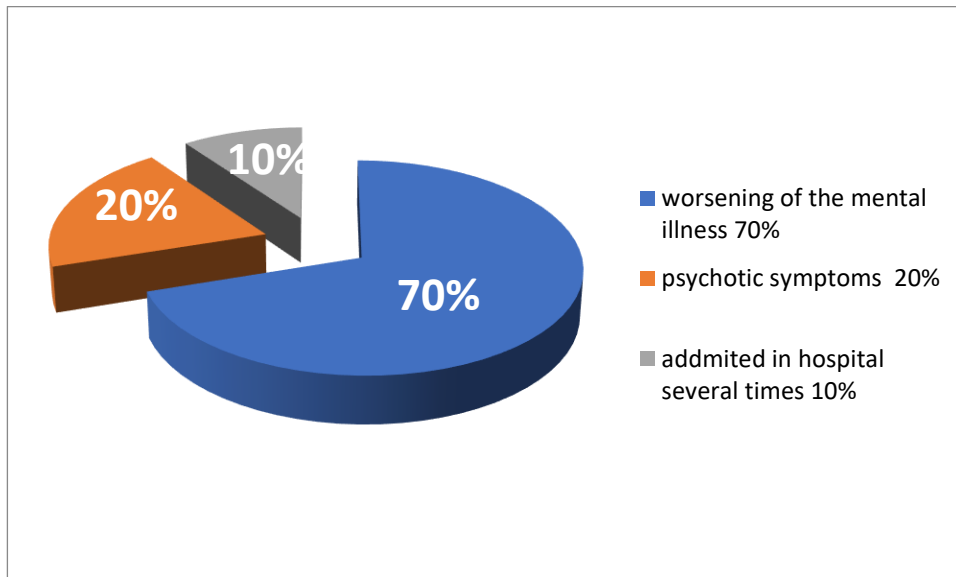
#### 4.6.17 Symptoms experienced during admission



**FIGURE 37: SYMPTOMS EXPERIENCED BY PATIENT DURING ADMISSION**

According to the results, 5.6% (n=11) of the respondents indicated that the mentally ill experience lack of sleep, 2% (n=4) agreed that the mentally ill experience walking around, while 5.1% (n=10) report hearing unusual voices, whereas 2% (n=4) and 27% (n=53) of the respondents showed that the mentally ill patients report seeing unusual things and talking to her/himself as symptoms whenever he/she is admitted. Finally, 58% (n=5) displayed symptoms associated with the removing of their clothes.

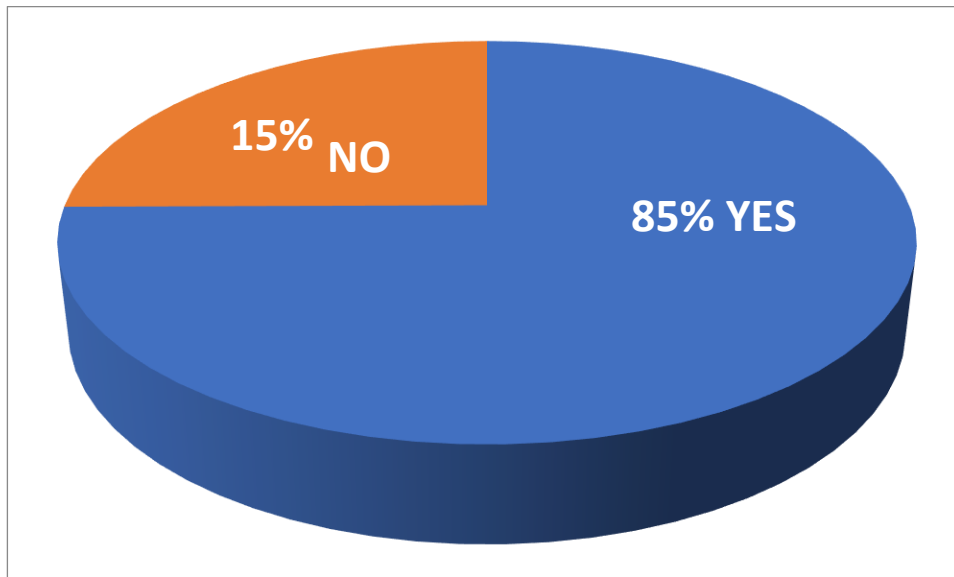
#### 4.6.18 Understanding of the definition of the word relapse



**FIGURE 38: UNDERSTANDING OF THE DEFINITION OF THE WORD RELAPSE**

From the above figure it can be observed that 70.0% (n=137) of the respondents understood the word relapse as the worsening of the mental illness, while 19.8% (n=39) see relapse as psychotic symptoms and 10.2% (n=20) believes that relapse is being admitted in the hospital for several times.

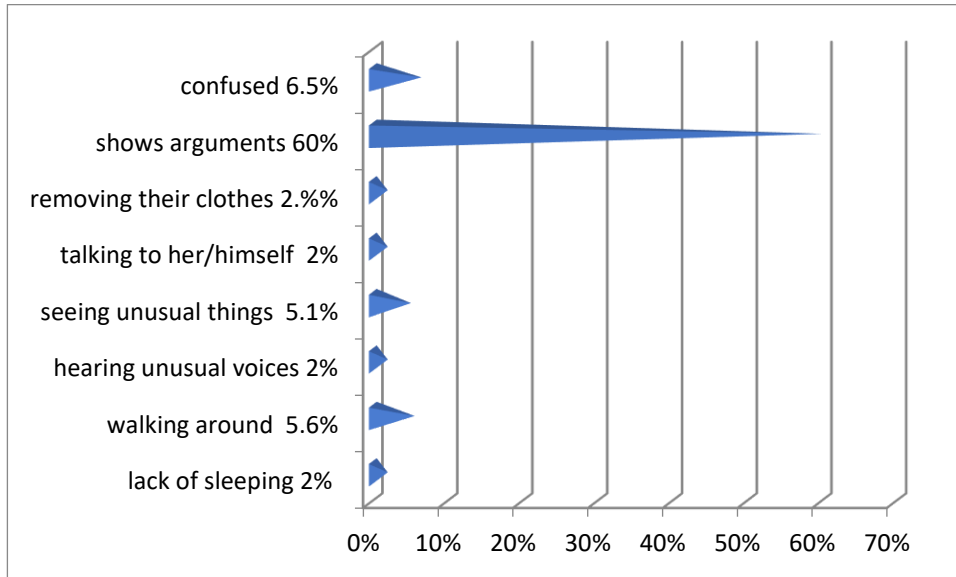
#### 4.6.19 Do you think you have relapsed?



**FIGURE 39: DO YOU THINK YOU HAVE RELAPSED?**

The majority of patients admitted that they have relapsed, and this is shown by the result indicating that 85% (n=166) answered with a yes and the reason provided was not taking their medication. Some had different reasons for their relapse, whereas some stated no reason for their relapses. Twenty-nine (15%) of the respondents answered that they do not think that they have relapsed.

#### 4.6.20 Symptoms experienced during relapse



**FIGURE 40: SYMPTOMS EXPERIENCED DURING RELAPSE**

According to the results, 2% (n=4) of the respondents indicated that the mentally ill experience lack of sleep, 5.6% (n=11) agreed that the mentally ill experience walking around, while 2% (n=4) indicated hearing some unusual voices. Moreover, 5.1% (n=10) and 2.0% (n=4) of the respondents indicated that the mentally ill patients display seeing unusual things and talking to themselves as symptoms whenever admitted, whereas 2.5% (n=5) displayed symptoms of removing their clothes, while 60% (n=114) displayed being argumentative whilst at home. Lastly, 6.5% (n=17) of the respondents showed the symptom of being confused.

**MEDICATIONS KNOWLEDGE, TYPE, DOSES, SIDE EFFECTS, ADHERENCE,  
ACCESSIBILITY AND AVAILABILITY**

**4.6.21 Medication that patients are currently taking.**

**TABLE 18:MEDICATION THAT PATIENTS ARE CURRTAKING**

<b>Patient/Which medications are you currently taking?</b>	<b>Frequency</b>	<b>Percent</b>
Amitriptyline	4	2.05%
Carbamazepine	1	0.51%
Carbamazepine, Haloperidol, Biperiden	1	0.51%
Chlorpromazine, Biperiden	2	1.03%
Chlorpromazine, Biperiden, Modecate injection	8	4.10%
Chlorpromazine, Biperiden, Modecate injection	3	1.54%
Chlorpromazine and Biperiden	10	5.13%
Clozapine, Biperiden	2	1.03%
Fluanxol injection	1	0.51%
Fluoxetine	1	0.51%

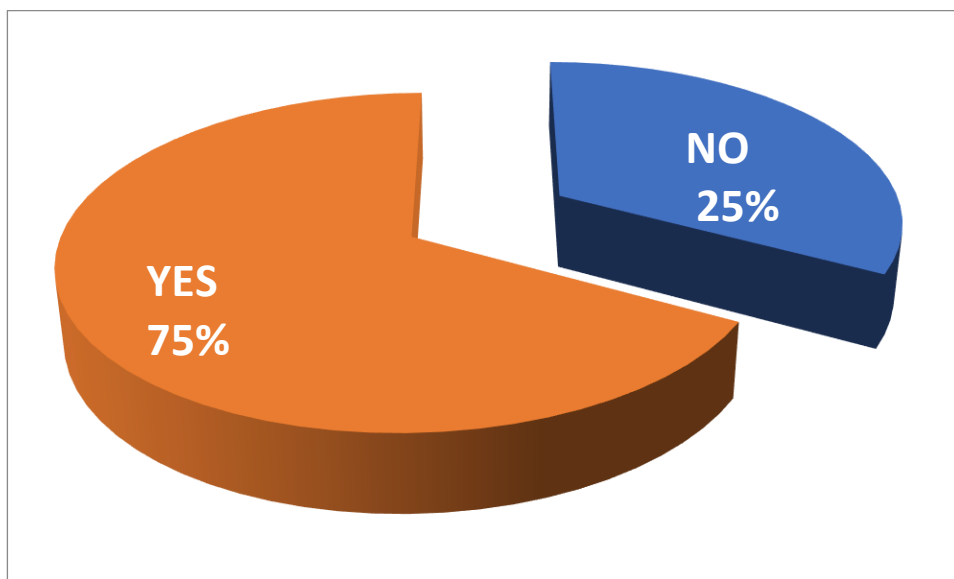
Fluoxetine	20	10.26%
Fluoxetine, Biperiden	4	2.05%
Haloperidol, Modecate injection, Biperiden	1	0.51%
Haloperidol	2	1.03%
Haloperidol, Biperiden	1	0.51%
Haloperidol, Carbamazepine, Biperiden	1	0.51%
Haloperidol, Biperiden	1	0.51%
Haloperidol, Biperiden	27	13.85%
Haloperidol, Biperiden, Carbamazepine	3	1.54%
Haloperidol, Biperiden, Modecate injection	21	10.77%
Haloperidol, Biperiden, Sodium valproate	3	1.54%
Haloperidol, Carbamazepine, Biperiden	1	0.51%
Haloperidol, Modecate injection	1	0.51%
Haloperidol, Modecate injection, Biperiden	1	0.51%
Haloperidol, Sodium Valproate, Biperiden	2	1.03%
Haloperidol, Biperiden	1	0.51%
Lithium carbonate	2	1.03%
Lithium Carbonate, Haloperidol	1	0.51%



Lorazepam	5	2.56%
Lorazepam, Haloperidol, Biperiden	2	1.03%
Lorazepam, Thiamine	1	0.51%
Psychotherapy	1	0.51%
Risperidone, Biperiden	1	0.51%
Risperidone, Sodium Valproate, Biperiden	2	1.03%
Sodium Valproate	31	15.90%
Sodium Valproate, Haloperidol, Biperiden	1	0.51%
Sodium Valproate, Haloperidol, Biperiden	1	0.51%
Sodium Valproate, Haloperidol, Biperiden	13	6.67%
Sodium Valproate, Haloperidol, Biperiden	9	4.62%
Sulpiride, Biperiden	2	1.03%

When patients were asked about the medications they are currently taking, the table shows that majority of them are on Sodium Valproate (n=31) 15.90%, followed by (n= 27) 13.85% on Haloperidol, (n=2) 10,77% on Haloperidol, Biperiden and Modecate injection, then (n=20) 10,26% are on Fluoxetine. A few others are on a different combination of medication and single medication.

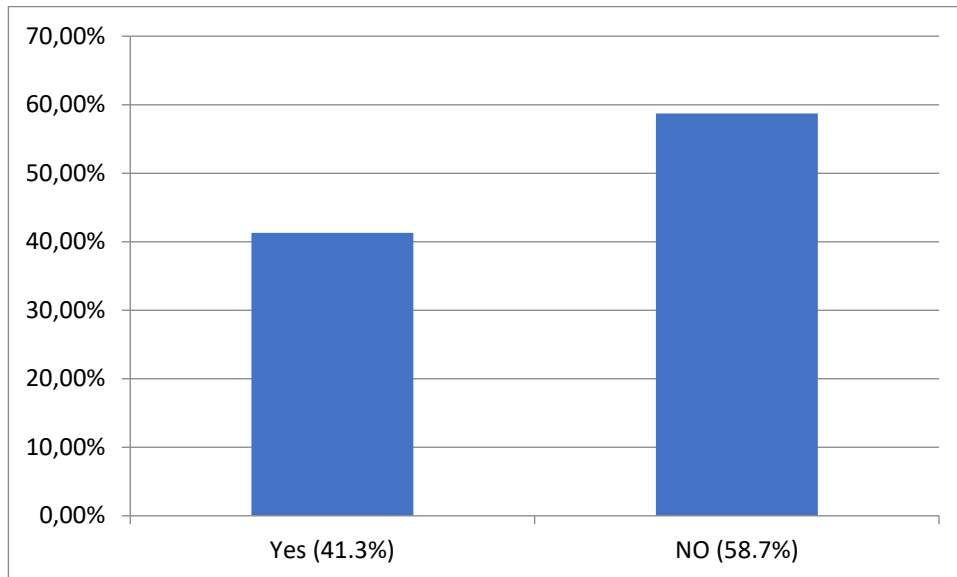
#### 4.6.22 Ever stopped medication before relapse



**FIGURE 41: PATIENT EVER STOPPED MEDICATION BEFORE RELAPSE**

From the above figure, it can be observed that 75% (n=147) of the respondents stated that they stopped medication before they relapsed, while 25 % (n=49) of the respondents said that they did not stop medication before they relapsed.

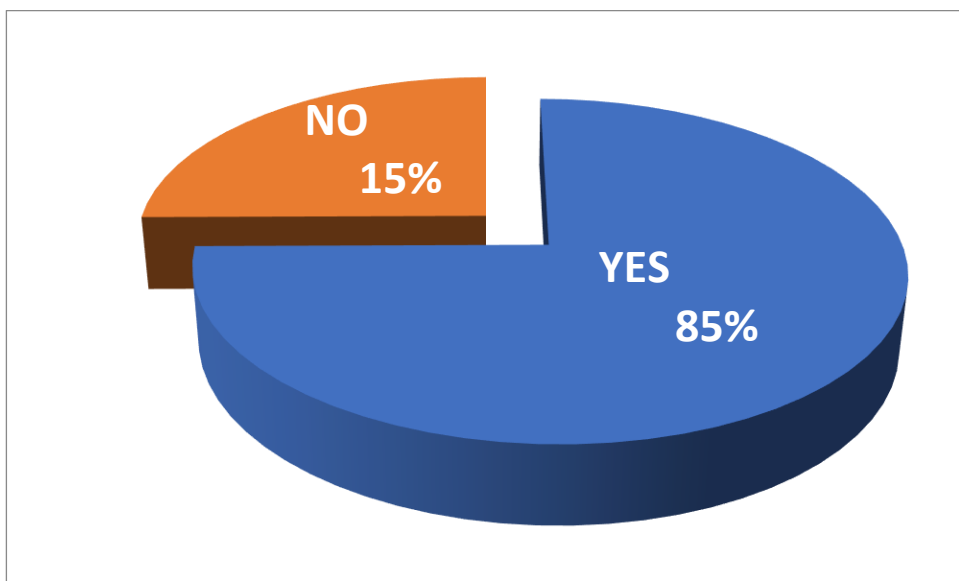
#### 4.6.23 Do you experience medication side effects?



**FIGURE 42: DO YOU EXPERIENCE MEDICATION SIDE EFFECTS?**

From the above figure, it can be observed that 58.7% (n=115) of the respondents said that the mentally ill patient's medication does not have side effects, while 41.3% (n=81) of the respondents said that the mentally ill patients' medications have side effects.

#### 4.6.24 Any problem with collecting medication.

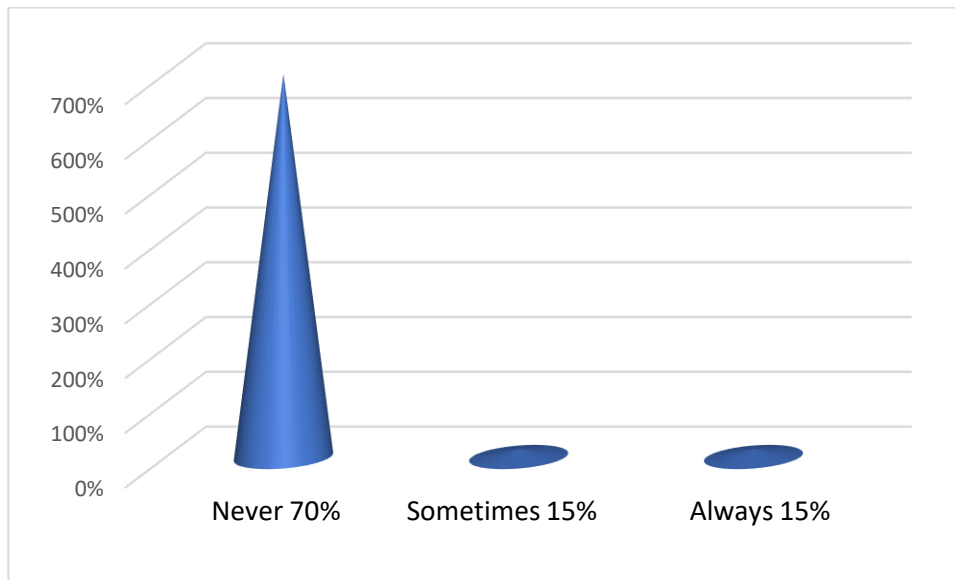


**FIGURE 43: ANY PROBLEM WITH COLLECTING MEDICATION**

From the above figure, it can be observed that 85% (n=166) of the respondents stated that the mentally ill patients have problems with collecting medications while 15% (n=30) of the respondents revealed that the mentally ill patients do not have problems with collecting medications.

## SUPPORT SYSTEM AVAILABILITY, QUALITY, AND IMPACT ON PATIENT

### 4.6.25 How often do people encourage the patient to stop medication



**FIGURE 44: HOW OFTEN DO PEOPLE ENCOURAGE PATIENT TO STOP MEDICATION**

The findings of this study revealed that 70% (n=136) of the respondents stated that the mentally ill patients have never been encouraged to stop medication. About 15% (n=30) and 15% (n=30) of the respondents said that the mentally ill patients were sometimes and always been encouraged to stop medication.

#### 4.6.26 Type of support patients gets at home.

**TABLE 19: TYPE OF SUPPORT PATIENTS GETS AT HOME**

WHICH SUPPORT DO YOU GET AT HOME?	FREQUENCY	PERCENT
Encouragement to take medications	65	28.57
Food	28	14.29
Taking me to the hospital	7	2.04
Transport money	96	43.88

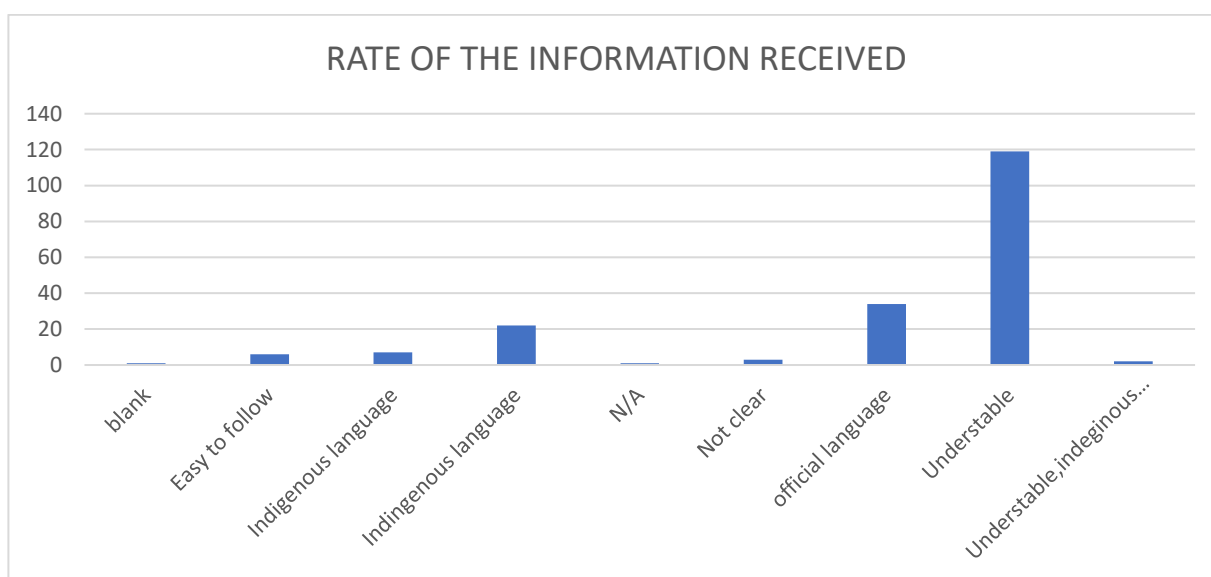
The table shows that patients 43.88% (n=96) get transport money as a form of support from home, followed by (n=65) 28.57% of the patients who were encouraged to take medications, (n=28 )14.29% patients were provided with food as a form of support and (n=7) 2.04% patients were accompanied to the hospital.

**TABLE 20: INFORMATION RECEIVED ON THE FOLLOWING TOPIC**

Topic	Yes	No
Mental illness	79 (40.31%)	117 (59.69%)
Sign and symptoms of relapse	7 (3.57%)	189(96.43%)
Medications and its side effects	107(54.59%)	89(45.41%)

Follow up and its importance	183 (93.36%)	13(6.64%)
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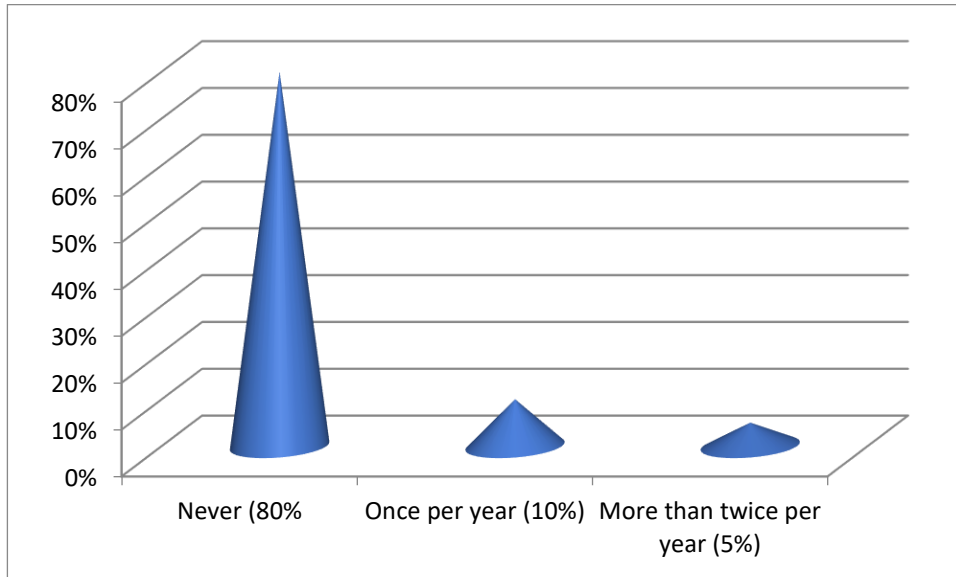
The table above shows that patients indicated that most of the patients received information on follow up and its importance, followed by medication and its side-effects, then mental illness and only 3.57% received information on the signs and symptoms of relapse.



**FIGURE 45: HOW WAS THE INFORMATION RECEIVED**

The figure shows that a total of (n=118) 60.2% patients found the information to be understandable, (n=34) 17.3% patients found it to be in an official language while (n=22) 11.2% indicated that it was in their indigenous language. However, (n=8) 4% found the information easy to follow and (n=4) 2% found it to be not clear.

#### 4.6.27 Frequency of home visits that patients get from the mental health nurse



**FIGURE 46: FREQUENCY OF HOME VISITS THAT PATIENTS GET FROM THE MENTAL HEALTH NURSE**

The findings of this study revealed that 80% (n=156) of the respondents stated that the mentally ill patients were never visited at home by the mental health nurse. About 10% (n=20) were visited once per year at home by a mental health nurse and 5% (n=10) more than twice per year, respectively.



**TABLE 21: SLEEPING PLACE BEFORE ADMISSION**

<b>Where did you sleep the previous days before admission</b>	<b>Frequency</b>	<b>Percent</b>
Church	3	1.5
In the house	178	90.8
In the street/open market	12	6.1
Others	3	1.5

The table above indicates that most of the patients had slept in the house (n=178) 90.8% followed by (n=12) 6.1% those who indicated that they had slept in the street or open before their admission. However, (n=3) 1.5 % indicates that they slept in the church and another (n=3) 1.5 % slept in other places.

**TABLE 22: NECESSITY TO COPE WITH MENTAL ILLNESS**

<b>NECESSITY TO COPE WITH MENTAL ILLNESS</b>	<b>FREQUENCY</b>	<b>PERCENT</b>
Counselling	42	21.4
Employment	31	15.8
Money	66	33.7
Others	17	8.7
Prayer	35	17.9

Respect	3	1.5
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Most (n=66) 33.7% of the respondents indicated that they needed money to cope with mental illness. However, (n=42) 21.4% and (n=35) 17.9% indicated that they needed counselling and prayers respectively, while the least needed is respect with (n=3)1.5%.

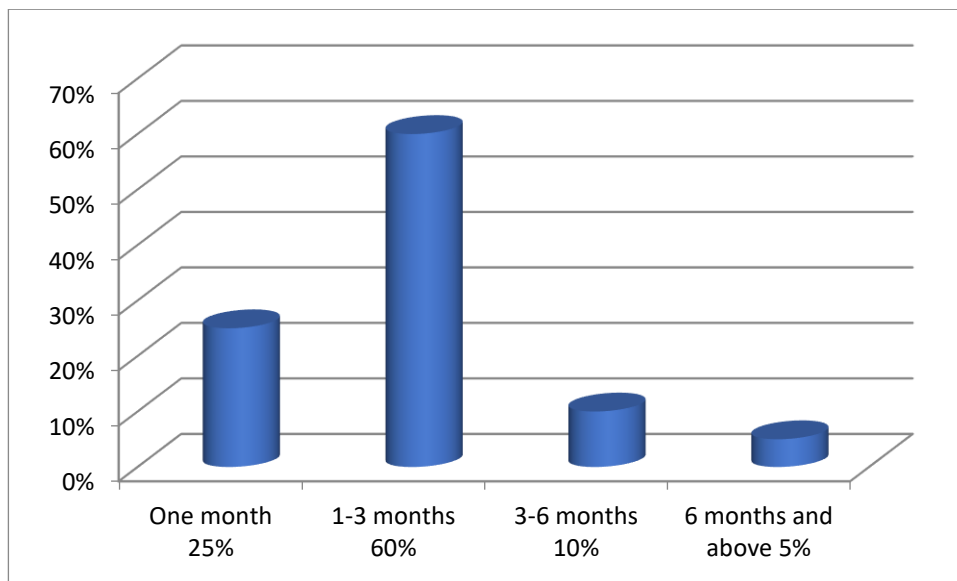
#### 4.6.28 Type of substance patient use

**TABLE 23: TYPE OF SUBSTANCE USED BY THE PATIENT**

<b>SUBSTANCE USED MOSTLY BY THE PATIENT</b>	<b>FREQUENCY</b>	<b>PERCENT (%)</b>
Alcohol	76	38.9
Cocaine	3	1.5
Dagga	10	5.1
Tobacco	58	29.6
None	49	25.0
Total	196	100%

According to the above table, the majority (n=76) 38.9% indicated that alcohol is the most common substance used by the mentally ill patient, followed by none and tobacco use with (n=49) 25% and (n=58) 29.6% respectively.

**4.6.29 Duration it takes to be admitted with psychotic symptoms after using the above substances.**



**FIGURE 47: DURATION IT TAKES TO BE ADMITTED WITH PSYCHOTIC SYMPTOMS AFTER USING THE ABOVE SUBSTANCES**

The findings of this study revealed that 60% (n=117.6) of the respondents say that it takes 1-3 months to be admitted or to visit a hospital with psychotic symptoms after taking the above-mentioned substance, while 25% (n=49) indicated one month. The analysis equally shows that for 10% (n=20) and 5% (n=10) respectively, it takes 3-6 months and 6 months and above before a mentally ill patient is admitted or visits a hospital with psychotic symptoms after taking the above-mentioned substance.

#### 4.6.30 Comorbidity

**TABLE 24: OTHER CHRONIC ILLNESSES**

COMORBIDITIES	FREQUENCY	PERCENT
Cancer	2	1.0
Diabetes mellitus	1	0.5
Epilepsy	3	1.5
HIV	72	36.7
Hypertension	35	17.9
None	65	33.2
Others	18	9.2
Total	196	100%

The majority of those who participated in the study as patients had HIV as an additional illness apart from mental illness (n=72) 36.73%. A total of (n=35) 17.86% respondents had hypertension, (n=65) 33.16% had no additional illness, while the least at (n=2) 1.02% had cancer.

#### 4.6.31 Psychosocial stressor

**TABLE 25: SITUATION HAPPENINGS BEFORE ADMISSION**

<b>SITUATIONS BEFORE ADMISSION</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Bullying	4	2.0
Death of the close relative	43	21.9
Discrimination	56	28.6
Divorce/breakup	20	10.2
Financial problem	37	18.9
Physical abuse	14	7.1
psychological abuse	21	10.7
Unplanned Pregnancy	1	0.5
None	0	0

The table above displays that discrimination was the most frequent situation experienced by patients before they were admitted with (n=56) 28.6%, while the death of a close relative and financial problems followed with (n=43 ) 21.9% and (n=37) 18.9% respectively.

#### 4.7 RELATIONSHIP BETWEEN FACTORS ASSOCIATED WITH RELAPSE IN MENTALLY ILL PATIENTS AT IHO

Two by two table analysis results to determine the association between factors and relapse according to the patients and care takers are presented in Table 24 and Table 25 respectively. Linear regression was used to determine the statistical significance for all possible exposure variables at P-value of less than 0.05. There was a significant association between marital status ( $X^2 = 24.41$ , P-value = 0.00); Source of income ( $X^2 = 8.89$ , P-value = 0.03) and relapse according to patient respondents. However, there was no significant association between residential areas and relapse ( $X^2 = 1.03$ , P-value = 0.61).

**TABLE 26: LINEAR REGRESSION ANALYSIS OF THE CLINICAL FACTORS ASSOCIATED WITH RELAPSE AMONG MENTALLY ILL PATIENTS AT IHO**

EXPOSURE VARIABLES		RELAPSE		OR	95%CI	P- VALUE
<b>Patient stopped medication before relapse</b>						
Yes		134	20			
No		38	4	0.71	0.20 – 2.08	0.38
<b>Mental illness cannot be treated</b>						
Yes		39	3			

No	133	21	2.05	0.63 – 9.02	0.19
<b>Inability to sleep</b>					
Yes	89	20			
No	83	4	0.23	0.06 – 0.62	<b>0.00*</b>
<b>Visual hallucination</b>					
Yes	56	2			
No	116	22	5.29	1.38 – 34.32	<b>0.00*</b>
<b>Auditory hallucination</b>					
Yes	41	12			
No	131	12	0.32	0.13 – 0.78	<b>0.00*</b>
<b>Mentally ill patient should take medication for life</b>					
Yes	73	8			
No	99	16	1.47	0.60 – 3.81	0.27
<b>Home visit by a mental health nurse</b>					
Yes	8	3			
No	164	21	0.34	0.09 – 1.71	0.14

<b>Argument over small things</b>						
Yes	153	19				
No	19	5	0.71	0.24 – 6.16	1.84	
<b>Medication side effects</b>						
Yes	117	18				
No	55	6	2.11	0.64 – 6.16	0.15	
<b>Delusions</b>						
Yes	27	4				
No	145	20	0.93	0.30 – 3.40	0.90	

*Values in bold and \* are statistically significant at P-value < 0.05 95 % Confidence*

*Interval, OR=Odds Ratio.*

Factors were tested on regression to find the association they may have with mental illness based on the patient response. Mental illness relapse was examined against medication defaulting, and the study found out that there wasn't a significant difference amongst patients who stopped taking medication and relapse in comparison to those who did not stop taking medication (OR=0.71, p=0.38). However, patients who had insomnia, an inability to sleep, were more likely to have mental illness relapse in comparison to those



who did not have any inability to sleep (OR, 0.23, P=0.00). Patients who had both visual and auditory hallucination were statistically observed to have a chance of developing mental relapse (OR, 5.29, P=0.00 and OR, 0.32, p=0.00 respectively). Being visited by the nurse at home as a mentally ill patient did not have any relationship with mental illness relapse (OR, 0.34, p=0.14). There was no significant difference among those who relapsed and the non-relapsed regarding medication side effects (OR, 2.11, p=0.15). The association between mental illness relapse and delusions was also assessed. However, there wasn't any significant association between patients who had delusions and mental illness relapse (OR, 0.93, p=0.90).

**TABLE 27: MULTIVARIABLE ANALYSIS OF FACTORS ASSOCIATED WITH RELAPSE AMONG MENTALLY ILL PATIENTS ACCORDING TO PATIENTS AT IHO**

	RELAPSE	NON-RELAPSE	
VARIABLES	N=172 (100%)	N=24 (100%)	
<b>GENDER</b>			
Males	93 (54.07)	14 (58.33)	Fisher's exact=0.43; p=0.82
Females	79(45.93)	10 (41.67)	
<b>MARITAL STATUS</b>			

Single	144 (83.72)	12 (50.00)	Fisher's exact=0.0004; <i>p</i> =0.001
Married	13 (7.56)	5 (20.83)	
Divorced	3 (1.4)	1(4.17)	
Widowed	2 (1.16)	4(66.67)	
Co-habitat	10(5.81)	2(8.33)	
<b>EDUCATION</b>			
No formal	18 (10.47)	0(0.00)	Fisher's exact=0.01; <i>p</i> =0.02
Primary	48 (27.91)	4 (16.67)	
Secondary	68 (39.53)	8 (33.33)	
Tertiary	38 (6.7)	12(50.00)	
<b>SOURCE OF INCOME</b>			
Farming	4(2.33)	1(4.17)	Fisher's exact=0.03; <i>p</i> =0.03
Employed	39(22.67)	1 2(50,00)	
Disability grants	76 (44.12)	6 (25.00)	
Selling	53(31.81)	5(20,83)	

TYPE OF DWELLING			
Modern house	54 (31.39)	9 (37.50)	
Traditional house	54 (31.39)	6(25.00)	
Zinc house	64 (37.20)	9(37.50)	Fisher's
			exact=0.57;
			p=1.00
PLACE OF SLEEP BEFORE VISIT TO THE HOSPITAL			
Church	3(100.00)	0(0.00)	
In the house	156(87.64)	22(12.36)	
In the street/open market	10(83.33)	2(16.67)	
Others	3(100.00)	0(0.00)	Fisher's
			exact=0.79;
			p=0.76
MOST SIGNS BEFORE READMISSION			

Arguments	108(85.04)	19(14.96)	
Hallucinations	20(100.00)	0(0.00)	
Lack of sleep	44(89.80)	5(10.20)	Fisher's exact=0.14; p=0.14

There was no significant difference between the patients who relapsed and those who did not with regards to gender (Fisher's exact=0.42, p=0.83). There was an association which was observed between marital statuses as a factor into mental illness relapse status. A total of 83.72% (n=144) of patients who relapsed are single, and this indicates that being single had an association with mental illness relapse (Fisher's exact=0.0004; p=0.001). Regarding the educational level, the level of education had an influence on mental illness relapse (Fisher's exact=0.01; p=0.02). The majority of those who had relapse, 39.53% (n=68) had secondary education level and there was none who did not attend any formal education amongst those who did not relapse. There was a difference which was observed regarding source of income among the two groups. The majority of those who depended on the disability grant were more observed in the group of the relapse at 44.12% (n=76, Fisher's exact=0.03; p=0.03).

The two types of dwellings which are traditional and modern type were assessed against mental ill relapse association. Moreover, there is no association between the traditional type of dwelling and the modern one (Fisher's exact=0.79; p=0.76). Some patients had never slept in the house sometimes; they were however, assessed to determine if there was any association between mental illness relapse and sleeping at any other places that are not home (places such as the open market, church, and others). It was however, found that there was no association between sleeping at any other place which is not home and mental illness relapse (Fisher's exact=0.79; p=0.76). Relapse of mental illness was also assessed based on most signs and symptoms in patients before readmission. Most signs and symptoms during readmission are such as arguments and hallucinations. There was no association which was observed between mental illness relapse and most signs and symptoms before admission (Fisher's exact=0.14; p=0.14).

**TABLE 28: LINEAR REGRESSION ANALYSIS OF FACTORS ASSOCIATED WITH RELAPSE AMONG MENTALLY ILL PATIENTS, ACCORDING TO THE CAREGIVERS AT IHO**

EXPOSURE VARIABLES		RELAPSE		OR	95%CI	P- VALUE
Problems collecting medication	with	Yes	No			
	Yes	102	12			
	No	70	12	1.45	0.61 – 3.49	0.25

<b>Patient medication relapse</b>	<b>stopped before</b>					
	Yes	21	4			
	No	151	20	0.70	0.23 – 2.58	0.37
<b>Auditory hallucination</b>						
	Yes	41	12			
	No	131	12	0.32	0.13 – 0.77	<b>0.00*</b>
<b>Confused</b>						
	Yes	47	3			
	No	125	21	2.62	0.81 – 11.49	0.09
<b>Argument and angry over small things</b>						
	Yes	140	21			
	No	32	3	0.63	0.14 - 2.06	0.34
<b>Medication side effects</b>						
	Yes	153	19			

No	19	5	2.11	0.64 – 6.16	0.15
<b>Visual hallucination</b>					
Yes	64	4			
No	108	20	2.94	1.01 – 10.47	<b>0.03*</b>
<b>Mental illness cannot be treated</b>					
Yes	39	3			
No	133	21	2.04	0.63 – 9.02	0.19
<b>Inability to sleep</b>					
Yes	90	20			
No	82	4	0.22	0.06 – 0.64	<b>0.00*</b>
<b>Home visit by a mental health nurse</b>					
Yes	8	3			
No	164	21	0.34	0.09 – 1.71	0.14

*Values in bold and \* are statistically significant at P-value < 0.05 95 % Confidence Interval, OR=Odds Ratio.*

According to the caregivers' responses, there wasn't any association between patients being in any challenge of collecting his or her medication from the hospital and mental

illness relapse (OR1.45,  $p=0.25$ ). The same results were observed according to the patients' responses.

Moreover, stopping taking medication by the patient was found to be significant and causing mental illness relapse among the patients with mental illness (OR, 0.70,  $p=0.37$ ). This is consistent with the responses according to the patients. It was observed that according to the patients' responses, visual hallucination as well as the inability to sleep were found to have an association with mental illness relapse (OR 2.94, 0.03 and OR, 0.22,  $p=0.00$  respectively). Visits by a nurse at home for a mentally ill patient did not have an association with mental illness relapse as observed according to the caregivers' responses (OR 0.34,  $p=0.14$ ).

#### **4.8 CONCLUSION**

This chapter presented the findings of the data collected from the care givers of people with mental illness and the patients. The significant findings include the impact of alcohol and drugs on mental illness admissions to the hospital, and non-adherence to medication. It was also revealed that the income of the clients was affected by the mental illness which had a ripple effect on job skills, communication skills as well as their social network.

The findings regarding family support reflect sympathy and the concern that family members accorded each other in times of illness, although this support is affected by the age group.

#### **4.9 INTERGRATION OF THE STUDY RESULTS INTO THE MODEL**

The model of the study has come up with the arc of mental health promotion, which shows that it is concerned with promoting the mentally ill wellbeing across their life span when they relapse, when they are at risk of relapsing and after relapse. The arc of mental health



promotion ~~it is~~ comprises of early intervention and recovery and then prevention, treatment and continuing of care falls under the latter. According to the study findings, it was revealed that there are some factors that predispose relapse like intake of alcohol or death of close relatives, meaning that there was no early intervention. If early intervention did not occur, patient moved on to treatment as they have indicated name of medication they were currently taking and then after relapse patient goes on to continuing of care which most indicated that they need spiritual support and financial support.

#### **4.10 CHAPTER SUMMARY**

This chapter discussed the data analysis and interpretation. Research consisted of the information directly derived from primary sources. The key methods used to collect the data included a questionnaire and interviews. Questionnaires were given to family caregivers and patients for their views and opinions.

The finding indicates non-adherence to antipsychotic medication as a leading factor to relapse. Others include inadequate family support, stressful life events and substance use. Adherence to antipsychotic medication, family and peer support, employment and religion were perceived to protect patients from relapse episodes. Psychoeducation, community home visits and a good therapeutic relationship that could help to reduce relapse and promote mental health in patients with mental illness were not adequate.

## **CHAPTER FIVE**

### **DISCUSSION, LIMITATIONS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

This chapter focuses on the discussion of the results collected through the self-administered questionnaire from the selected samples and the limitations of the study. The aim and purpose of this concluding chapter is to discuss the results in relation to the study objectives and the limitations as well as the recommendation from the study to ameliorate the problem.

This chapter presents the discussion of the findings in relation to the main objectives of the research study, which was to determine the factors associated with relapse in mental illness at Intermediate Hospital Oshakati. It also evaluates if the objectives of the study were reached. The objectives of the study were to determine the factors that patients associate with relapse, determine the factors that caregivers associate with relapse and analyse the correlations between different factors associated with relapse in mentally ill patients at Intermediate Hospital Oshakati.

#### **5.2 DISCUSSION OF THE RESULTS**

The study findings were discussed starting from demographic data of both patients and their caregiver followed by factors associated with relapse and lastly the correlation between the key variables.

##### **5.2.1 Demographic data for respondents**

The demographic data for the respondents will be discussed under the following headings:

#### **5.2.1.1 Demographic data for patients**

A total of 196 patients took part in the research study. Females made up many of the respondents (65%) compared to their male counterparts (35%). The result shows that females were more than males, and this could be due to the nature of the society and the stigma that discourages males from visiting the psychiatric unit and females' health seeking behaviour which is higher than in men. However, Winter et al. (2016) found more males at the health facility than females during their study.

Most of the patients (45%) were between the ages of 20 and 29, as indicated in table 15 of this study report (page 72). Therefore, this age group shows that mental illness affects the productive group. Similarly, a study done by Amin, Rahman, Elhameed and Elghiet (2020) on assessment of psychosocial and demographic characteristics related to relapse in schizophrenic patients in psychiatric hospital of Assiut university found out that their respondents were at age range of 25-35.

With regards to the marital status, the study found out that most of the patients (70%) were single, with only 15% of them being married. These findings may be related to the setting of the study as the ethnic group where most of the patients belong; it is not acceptable to marry mentally ill patients as they are regarded as irresponsible people in the society. This finding corroborates the findings by San et al. (2013) when they study socio-demographic, clinical and treatment characteristics of relapsing schizophrenic patients, which reported that most patients (73.3%) were unmarried and divorced. However, Amin et al. (2013) reported that more than half of the sample of their study was married.

However, on the educational level of the patient, 38% of the patients had completed secondary education. This was supported by the record Ward 16 (inpatient register book)

in the wards that showed that most of the patients who are seen as outpatients were educated unlike most of the admitted patients were uneducated, perhaps may be due to poor illness insights, this could lead to relapse. This is supported by the study done by Adebeyi, Mosaku, Irinoye and Oyelade (2018) on socio-demographic and clinical factors associated with relapse in mental, who found that most of the patients who were re-admitted had post-secondary education compared to those not re-admitted who were either professional, intermediate, or skilled workers.

Slightly most of the patients (41.8%) reported that they depended on the disability grant as a source of income. Perhaps may be mentally ill patients are not employed because of their poor social skills. This result agrees with those of Oyekani, Adelufosi, Abayoni and Adebowale (2012) who reported that unemployment is high among those with mental disorders, especially those with severe mental illnesses with various social and economic barriers impeding their employment.

Concerning the type of home, most of the patients lived with their families in the urban area, and this might be due to the lack of mental health services at all the clinics around the villages. Similarly, in China, Sun et al. (2014) reported that most of the patients were staying in urban areas due to increased mental illness stigma in rural areas that might affect patients' visits to psychiatric facility.

#### **5.2.1.2 Demographic data of caregivers**

A total of 196 caregivers took part in the research. Females made up most of the respondents (108 out of 196), accounting for 55%, while male caregivers were 88 with only 45%. Therefore, this study revealed that women are most of the caregivers to the mental ill patients, may be because women are caregivers by nature and by cultural beliefs

as most of the patients are from the same ethnic group. No similar study has been found that reported on caregivers' gender.

This study found out that most of the caregivers' age range was between 40-49. The result shows that this age group is regarded as the mature group and can handle the behaviour of the mentally ill patient during relapse. Similarly, a study done in India by Chauritia, Verma and Baniya (2016) reported that most of the caregivers (45 percent) were between the ages of 40 and 44, indicating that they were family members who were still in formal employment and had equally engaged in income-generating activities to support their mentally ill loved ones.

It has been reported that most of the caregivers' source of income was from selling. This part of the result shows that caregivers are at least trying to come up with their own source of income, as some might lose work just to care for their mentally ill patients during relapse. Similarly, Gbiri, Badru, Ladapo and Gbiri (2011) found that relapse and readmission in psychiatric patients have been shown to have a negative impact on the socio-economic well-being of patients, family, and the society.

Concerning the relationship of the caregivers to the patients, the study found out that most of the caregivers were patients' relatives. This result shows that mentally ill patients are taken care of by close relatives that can tolerate the behaviour of the patients during relapse. This could be due to the reason that only close relatives will be responsible to remind the patient about medication and to go for follow ups. This is supported by Fikreyesus et al. (2016) who found out that patients who were staying with relatives were associated with lower relapse.

Concerning the marital status, most caregivers (79.6.2 %) were single. This finding proves to be troublesome as the average age group for caregivers was 40-49 which is the age group of being married in relation to their ethnic groups they have indicated during the study. This finding shows that caring for a mentally ill person can affect your relationships with others, may be due to the busy routine associated with the caring of the patients. Sometimes it is just stigma that is attached to the family of the mentally ill patients by the society. In a study of stigma and discrimination among mentally ill patients' caregivers in China by Yin et al.(2014), it was shown that the majority of the caregivers hide the disease of their family members from friends as a way of avoiding stigma. Other studies by Van der Sanden, Bos, Stutterheim, Pryor and Kok (2013) have also reported limited social relationship due to stigma.

This study revealed that 40.8 % of the caregivers had completed secondary school. This indicates that caregivers can at least be educated with regards to their patients' illness and understanding their condition better. This finding is supported by Christopher, Charles, Dolakia and Sebastian (2018), who found that the caregiver's educational level is associated with the awareness of the diagnoses, signs and symptoms and aetiology of the illness and prognosis.

Most of the caregivers indicated that they were staying in rural areas followed by informal settlements. However, the researcher own opinion found out that living in rural areas and informal settlements contributed to relapse because of insufficient mental health services and the absence of a community mental health nurse at the local clinic. However, Cheng, Huang, Hsu and Su (2012) recommend that community mental health nurses have the

ability to teach patients about the importance of the medication regimen and how to deal with side effects.

This study revealed that most of the caregivers were Christian whereby most of them belong to the Revival churches followed by the Evangelical Lutheran church. This has shown that most of them have sources of religious support in the community. Some religious practices help caregivers and patients to cope with mental illnesses and this prohibits them from getting involved in substance abuse. Similarly, Saraih's (2012) study found that religion was expressed by patients and caregivers to have beneficial impacts in the course of their illness whereby they added that religion, including singing in the church choir, creates a sense of belonging and enables them to deal with difficult situations and this gives them the strength to move on despite their mental condition. In contrast, Saraih (2012) cited Mohr and Huguelt (2004) who found out that religion may have negative impacts on the outcome of mental disorders particularly when it replaces or delays medical treatment. Some patients may refuse medical care, especially psychiatric care, because of their religious beliefs. However, such findings did not emerge in this study, but it has supportive facts when it comes to replacing and delaying medical treatment for the mentally ill patient.

### **5.2.2 Factors associated with relapse by patients and caregivers**

The factors associated with relapse by patients and caregivers have been discussed under the following headings:

#### **5.2.2.1 Knowledge of mental illness, treatment, and care**

This study revealed that 70% of patients and 38% of caregivers have the understanding that mental illness is a thinking problem. This result shows that both the patients and their caregivers understand that when they have a mental illness their thinking ability is

affected. However, this is not the case in Pakistan as the study done by Ahmad, Khalily, Hallahan and Shah (2017) reported that 88% of their respondents (caregivers) indicated that they have poor knowledge of mental illness and this is supported by Chadda (2014), who reported that most caregivers take up the caring role in the absence of any significant knowledge about mental illness.

Most of the respondents at 78.4% (patients) and 76% (caregivers) indicated schizophrenia as their diagnosis in this study. A total of 59 patients supported by 64 caregivers also indicated bipolar mood disorder as a diagnosis. This result shows that the mentally ill patients and their caregivers are told the diagnosis. Similarly, in France a study targeting psychotic patients by Villani and Kovess-Masfety (2017) showed that 39% of them had been told of their diagnosis by the doctor. Being diagnosed with these two diagnoses increased the episode of relapse. However, understanding of diagnoses has been found to assist patients to adhere to medication. This is supported by the study done in Hong Kong by Hui et al. (2013) on the first episode of psychosis which showed that the diagnosis of schizophrenia was associated with an increased risk of relapse, and this could be due to the nature of the illness.

This study revealed that 60.0% of the caregivers understood the word relapse as the worsening of the mental illness, while 30.0 % saw relapse as the worsening of psychotic symptoms and 10.0% believes that relapse is being admitted in the hospital for several times. However, this is not true with regards to the patients because most of the patients understand that relapse means being admitted in the hospital several times. The understanding of the concept relapse in mentally ill patients is needed by the caregivers as it assists them in providing proper interventions. This study found out that most of the



caregivers and their patients were knowledgeable about the concepts relapse and mental illness. In contrast, a study that was conducted in India by Das and Phookun (2013) indicated that the knowledge, attitude, perceptions, and beliefs of caregivers was not associated with the patient's diagnosed illness.

Findings from this study indicated that lots of respondents from both groups are of the opinion that a mentally ill patient can work like other people, while a few of the respondents still believes that a mentally ill patient cannot work like other people. With regards to this finding, some caregivers might not be comfortable in involving their mentally ill patients in daily activities once they are diagnosed with a mental illness. Based on the ethnic groups studied, it is believed that mentally ill patients will make mistakes when they are involved in daily activities because they think that a mental illness permanently disables the family member. The latter is in line with Mokgothu, Du Plessis and Koen (2016), who found that most of the caregivers do not allow their patients to do any household chores because they think that they will damage their property. As a result, mentally ill patients may feel useless and excluded from family activities thereby causing them to withdrawal. However, Mokgothu et al. (2016) revealed that families involve mentally ill members in daily activities, to keep them occupied and to provide them with intellectual stimulation. Hsiao and Van Riper (2010) also argue that it is valuable when families involve their mentally ill family members to re-integrate them into the community.

From this study's analysis, it was observed that more than 55% of the respondents stated that a mentally ill patient should not take medication for the rest of his/her life, while 4 % believes that a mentally ill patient should take medication for the rest of his/her life. This

is a disturbing result because it indicates that most of the patients and their caregivers do not understand the need to take their medication for the rest of their lives. From the researcher's view, there is an indication of lack of education to both patients and caregivers on their understanding of mental illness. However, there aren't much literature on this phenomenon, but Correll, Rubio and Kane (2018) concluded in their study that they believed that the current literature undermines the clinical certainty of antipsychotic medications in the long-term treatment of chronic mental illness. Therefore, it may influence both caregivers and the mentally ill patients' knowledge and understanding on relapse and antipsychotic medication.

Concerning whether mental illness can be treated, most of both the patients and their caregivers showed that mental illness cannot be treated. This indicates that both respondents have shown little understanding on the illness, perhaps because they have experienced some more relapse, and this alters their expectations of treatment. In contrast, Michael (2020) states that mental illness can now be treated nearly as successful as physical disorders. Michale (2020) further states that for the treatment of a major mental illness, the treatment approach should involve both drugs and psychotherapy for it to be more effective than one method only.

Regarding the signs that occur during the illness, 84.9% of the respondents agreed that the mentally ill are argumentative, while 85% equally agreed that the mentally ill have problems of hearing strange voices, whereas 55.86% of respondents agreed that their mentally ill patients have sleeping problems. Therefore, this indicates that caregivers understand their patients' illness especially the indication of the relapse. Psychoeducation assists caregivers to understand their patients' illness better, including when they are

experiencing relapse. Similarly, a study done by Koenig, Castillo, Urdapilleta, Borgne and Bouleau (2011) found that parents who lived their children gave non-specific and very personalised signs of relapse and for those who did not live with their children, the relapse gave them pre-psychotic and post psychotic symptoms of relapse.

#### **5.2.2.2 Treatment history and admission**

Majority of the caregivers and their patients have indicated ‘yes’ on the question which asked if they think the patient has relapsed, this indicated that most patients in this study have relapsed. Concerning the reason why they think they have relapsed, most of the patients and their caregivers indicated that they stopped their medication and started missing their doctor’s follow-ups. This result shows that stopping taking medication contributed to relapse according to all respondents. However, this was not the case in China, as the study done by Chan et al (2014) found that more patients underestimated their chance of relapse and fewer patients thought that stopping their medication might lead to relapse compared to caregivers. In contrast to the latter, a study done by Sena et al. (2008) on schizophrenia, patients only reported that although antipsychotics are effective in reducing relapse, some of the patients still experienced relapse while taking outpatient medications regularly.

Regarding the signs and symptoms that the patient experienced whenever being admitted or relapsed, most of the caregivers indicated experiencing arguments at home while most of the patients indicated removing their clothes. The latter are known signs of relapse in mentally ill patients and if caregivers are aware of them, it might assist them to look for early interventions. As was previously indicated, many of the patients stated that they are either suffering from schizophrenia or bipolar disorder, and the above-mentioned

symptoms are associated with both disorders, and they can be an early indication of relapse in both. Another study by Rickwood (2014), also found out that the later are the first warning signs of relapse in patients with a mental illness.

With regards to the frequency of previous admissions, both patients and their caregivers indicated that they have been admitted for more than 3 times in the past 3 years. This study has shown that most of the patients and their caregivers have no information on how long one must take antipsychotics which might be reasons for readmission. This corroborates the study findings of Adebisi et al. (2018) whose study showed that most of the patients reviewed during the study were readmitted at least once during the study period.

The study showed that both patients (70%) and caregivers (60%) understand the word relapse as the worsening of the mental illness. This study revealed that both caregivers and patients have no understanding of relapse and yet an understanding of relapse by caregivers is important as it will assist them to know when to seek help. No sources were found on the understanding of relapse by patients and caregivers.

#### **5.2.2.3 Medications knowledge, type, doses, side effects, adherence, accessibility, and availability**

This study findings showed that many patients are on Sodium Valproate, followed by the combination of Haloperidol and Biperiden, then a combination of Haloperidol, Biperiden and Modecate injection. It was observed that most of the patients and their caregivers know the name of medications, and this was good in the case of looking for information regarding medication. However, Chan et al. (2015) reported that only a few patients and caregivers know the name of the medications, perhaps maybe because all medications were named in English.

This study concluded that most of the patients are on typical antipsychotics which are prone to extra-pyramidal side-effects and anticholinergic adverse effects. This is supported by Harrison, Cluxton-Keller and Gross (2012) who reported that the major reason why mentally ill patients were stopping medication was intolerable side effects including extrapyramidal side effects. To support this, Rosenheck and Sernyak (2009) found out that extrapyramidal side effects are usually a result of typical antipsychotics. However, Liu-Seifert, Adams and Kinon (2005) reported different side effects i.e. vomiting, dizziness, weight gain and fatigue in patients using atypical antipsychotics. This study revealed that most of the patients experienced side effects like having a dry mouth, weight gain and sleeping too much which is associated with typical antipsychotics. Possibly, some patients might be non-adherent to the antipsychotics because of the side effects experienced. This finding was supported by Crossley, Constate and McGuire (2010), who found out that on average participants proffered that an atypical antipsychotic would gain 2 kgs more than those on typical antipsychotics. According to the findings, the caregivers also indicated similar side-effects that are experienced by their patients. However, although IHO is still using typical antipsychotic, WHO (2008) suggests that patients should take atypical antipsychotics because of lesser side effects.

From this study, various reasons as to why patients stopped taking medication were recorded, whereby most patients indicated that they stopped taking their medication because they were feeling better. Even though mental illness is a chronic or lifelong illness, the majority (103) (63%) of the mentally ill patients at some point stopped taking medication because they believed that they are healed from the condition. This finding can be linked to lack of insights into the nature of mental illness or inadequate information

from the health worker regarding the chronic treatment of mental illness. Similarly, in Nigeria, a study done by Ndukuba (2011) reported that most of the patients want to stop the medication the moment they are without any symptoms and often the result is a relapse with the patient ending up being readmitted into the hospital. However, Kessler et al. (2001) reported that 55% of the respondents in their study indicated that they stopped medication because they did not believe that they were sick.

In this study, almost half of the patients and caregivers indicated that they experienced side effects from medications and the listed side effects were various medical side effects that influenced mentally ill patients who had stopped taking medication. Amongst the side effects, according to the caregivers, most of the patients that stopped taking medication were those who had the challenge of sleeping too much which accounted for 56 (33%), tremors with 43(25%) and weight gain with 37(22%) and similar reasons were also stated by the patients. It was further stated that some of the side effects like weight gain and tremors have led to social stigma and later for patients to avoid being stigmatised, they stopped medication. This is supported by Saraih (2012), who reported that patients stopped treatment because of the side effects which in turn cause them to experience relapse.

In this study, it has been shown that 74.5% of the patients experienced challenges with the collection of their medication and some respondent stated reasons such as the long distance to the health facility and the lack of income for transport money. Some caregivers also indicated that patients are missing their follow-up dates and they indicated that their patients have challenges that hinder them from progressively collecting their medication

monthly. Among those challenges, lack of transport money to and from the hospital was dominant, as well as long distance to the health facilities.

Although mental health services are usually provided free of charge, the cost to travel to the different health facilities can be very high. Whenever drugs are not available in the hospital's pharmacy, patients must buy them. Common drugs that patients are compelled to buy are atypical antipsychotics. The ministry of health policy directives has made it mandatory for the medication to be made available in all clinics and health centres. The policy has equally approved the medication to be in most of the health facilities. These drugs tend to be so expensive that patients and their caregivers cannot afford to buy them because they are long life medications, hence at times patients are left without medication which in turn leads to relapse. This was consistent with the findings from a study that was done in Tanzania which found that most of the patients due to lack of income cannot afford medication (Jenkins, Mbatia, Singleton & White, 2010).

This study has found out that antipsychotic side effects have contributed to medication non-adherence which later led to relapse and the most used antipsychotics at IHO are typical antipsychotics which has extrapyramidal side effects than atypical antipsychotics.

#### **5.2.2.4 Support system availability, quality, and impact on caregivers**

According to this study, the respondents indicated that some of the mentally ill patients were sometimes or always encouraged to stop medication by either the community member or relatives. This might be because of the beliefs among the community as most of the community members believe that medications will not help the patient as the illness might have been caused by witchcraft and the patient will only get better with traditional healers. The researcher further found out that most of the patients before being brought to

the hospital had already initiated being treated by traditional healers. This is supported by the study done by Nortje, Oladeyi, Gureye and Seedat (2016) which recorded that some evidence suggests that traditional healers can provide an effective psychosocial intervention and their intervention might help to relieve distress and improve mild symptoms which are common to mental disorders such as depression and anxiety. However, little evidence exists to suggest that they change the course of severe mental illness such schizophrenia and bipolar.

Concerning the information or education received by patients or caregivers on the illness, most of the caregivers and patients indicated only receiving information on the follow-up date and its importance, with few indicating having received information on the signs and symptoms of relapse. This indicates that patients and caregivers are not receiving all the information regarding their diagnoses, nor health education being given to patients on their conditions. The researcher is working at IHO psychiatric Unit and attended several health education sessions and has observed that most of the health care workers at IHO Psychiatric unit are not well equipped with the relevant knowledge and skills to educate patients and their caregivers on mental illness relapse. In accordance with this finding, Saraih (2012) suggests that there must be a psychoeducational programme for patients, families and caregivers aiming at coping with mental illness to improve adherence, substance abuse, relapse and shortened hospital stays. Chadda (2012) also indicated that psychoeducation sessions with caregivers must include a brief introduction to the illness, presenting symptoms, early signs of relapse, available treatment, common side effects, treatment related costs, identifying burden and coping methods. Both patients and caregivers indicated high responses that the information was understandable and very



educative to them. Although this information was rated as such, it was incomplete information.

Other findings from this study revealed that 38.9% of patients abused substances such as alcohol, cannabis, and cigarettes, which can contribute to relapses in mentally ill patients and ultimately lead to a poor prognosis. This could be because some mentally ill patients use some substances believing that they can relieve them from symptoms of mental illness, but it worsens the symptoms of the illness and sometimes it even influences treatment seeking behaviour i.e., coming for appointment and adherence to medicines. Fikreyesus et al. (2016) support this finding through their report as they also found out that alcohol use even in small quantities by mentally ill patients can increase symptomatology and rehospitalisation. The latter is in line with a WHO report from 2008 that states that a history of substance abuse can lead to poor mental health outcomes in patients, including frequent relapses and poor drug compliance. Although the family caregiver stated that 60 percent (n=117.6) of the respondents believes that it takes 1-3 months to be admitted or to attend a hospital with psychotic symptoms after using a substance, just 25% (n=49) believes that it takes one month to be admitted. One study done by Chauritia et al. (2016) found out that their relapse group had a recent history of abusing substances than the remission group.

According to the present study, most of the caregivers support their patients by giving them transport money and by encouraging them to take their medications. The study further found that most of the patients are from rural areas, which means that they need money for transport to reach the IHO Psychiatric Unit. Therefore, caregivers have been found to be the only source of support to their patient as there are no support groups for

mentally ill patients in the community. This notion supports the findings by Hamanu, Yusuf and Patra (2019) who found that family plays a prominent role in financially supporting clients' lives as they are fully responsible for the clients and in caring for the clients. However, Saraih (2012) reported that participants indicated a concern of lack of family support, and they normally received criticism about their illness.

Most of the caregivers indicated that their patients need money and employment for them to cope with mental illness. However, some showed that they needed counselling and prayers respectively, while the need that was least indicated was respect. Most of the patients indicated employment as their number one need for them to cope with mental illness. Furthermore, all efforts to find employment for the mentally ill patients are essential since these can improve the quality of life and reduce both impoverishment and the high services and welfare costs engendered by this group (WHO, 2010). Gunno and Bergman (2011) reported that having meaningful employment has been found to contribute to increased self-esteem and it makes the management of symptoms easier.

The findings of this study revealed that 80% of the respondents stated that the mentally ill patients were never visited at home by a mental health nurse. This is perhaps maybe because home visits were not done due lack of staff and transport or maybe sometimes it is initiated at the unit. Although a home visit is one of the relapse protective factors, this is not happening at IHO Psychiatric Unit. In contrast, previous studies demonstrated that home visits were a good model for providing consistent care to patients in the long-term (Chang & Chou, 2015). The hospital stay duration and medical costs are also significantly decreased when mentally ill patients are visited at home (Chang & Chou, 2015).

With regards to where the patients slept before coming to the hospital for follow-up, both patients and the caregivers indicated in the house as the top place. However, there were 12 patients that indicated that they were sleeping in the street. Sleeping in the street exposes patients to danger and discomfort and sometimes they might even miss their medication. Sometimes patients refused to sleep at home for some reasons best known to them. The primary ethnographic findings by Luhrmann (2008) reported that those who sleep on the street and struggle with mental illness may reject an offer of help because their illness distorts their understanding.

This study found out that mentally ill patients still have people discouraging them from taking their medication, are receiving incomplete information regarding their illness from the health care worker, most of them are abusing alcohol and they were never visited by mental health nurse. However, they indicated to have some protective factors like having financial support at home and providing them with shelter.

#### **5.2.2.5 Comorbidity**

Findings from this study revealed that most of the mentally ill patients are HIV positive (36 %), 31% has other illness, whereas 33% do not suffer any comorbid illness. This might be because of their limited thinking capacity as they tend to be involved in risky behaviour like unprotected sex or probably, they got infected first and then failed to cope with HIV which could have probably led to overthinking which may have resulted in mental illness. Leucht, Burkard, Henderson, Maj and Sartorius (2007) reported that many mentally ill patients are preoccupied with psychotics symptoms, and as such they may fail to seek treatment for physical illnesses. The latter sentiment is supported by Rickwood (2014) who stated that people who have experienced mental illness can have compromised

physical health for several reasons. They are less likely to receive appropriate health care compared to those without mental illness, and it is an indictment of our mental health care system that people who have been involved with mental health services have often had their physical health needs overlooked.

Furthermore, the respondents from this study enlisted the following behavioural factors such as smoking, use of harmful alcohol and other drugs, poor diet, inadequate living situations (such as homelessness), and poor self-care because of illness symptoms that can make people with a mental illness vulnerable to physical health problems. This is supported by Leucht et al. (2007) who reported that mentally ill patients have a lifestyle which in itself is an important risk factor to a variety of physical illness factors such as smoking and using drugs and alcohol. However, this was not the case of the study by Leucht, Burkard, Henderson, Maj and Sartorius (2007), who found out that most of the mentally ill patients do not have adequate access to medical treatment and in many psychiatric hospitals, there may be lack of physical treatment interventions due to the behaviour of the psychiatrists who often neglect their skills of recognizing and treating physical illness.

This study finding has highlighted that most of the patients have mental illness together with other illnesses and HIV was the highest mentioned illness.

#### **5.2.2.6 Psychosocial stressor**

Findings from this study indicated that 47.4% of the patients have not gone through a stressful situation before they relapse, according to their caregivers. It should be noted that patients do not always encounter stressful situations before relapse, because relapse normally occurs in mentally ill patients, especially in schizophrenic patients which makes

up a large number of the study respondents. However, this was not the finding of Moges, Belete, Mekonen, and Menberu (2021), who reported that participants in their study who experienced three or more stressful life events had two times odds of experiencing relapse than their counterparts. This is supported by Saraih (2012) who reported that patients are more sensitive and susceptible to negative effects of even a minor stressor.

According to the study findings, caregivers and their patients indicated that patients experienced discrimination, stigma, and bullying. This supports findings by Chang and Chen (2016) who reported that, in addition to their symptoms, disease reoccurrence, repeated hospitalisation, and multiple disabilities, patients experienced rejection or discrimination from the public, community, their friends, relatives, and medical staff. According to Wang, Link, Corrigan, Davidson, and Flanagan (2018), mental illness stigma has contributed to disempowerment which ends in treatment default and thereby barriers to recovery. This supports findings by Holder, Peterson, Stephens, and Crandall (2019), who reported that mental health stigma discourages individuals from obtaining proper mental health treatment.

This study revealed that mentally ill patients can experience relapse without any stressor, and the study also revealed that mentally ill patients are still experiencing stigma and discrimination in the society.

### **5.2.3 Correlation between factors associated with relapse among mentally ill patients at IHO**

Concerning the correlations between factors, the study revealed that there is a correlation between the determined factors. According to the findings, it can be concluded that there is a significant association between marital status, gender, source of income of patient and

relapse with a p value less than 0.003. The results have also shown that there is a strong correlation between stressful life events and a relapse. This finding goes along with the report of Gbiri et al. (2010) who reported that there were significant relationships between age, sex, marital status, and number of relapses with a ( $p < 0.05$ ).

Concerning the association between the signs experienced by the patients, the findings showed that patients who experienced hallucinations were statistically observed to have a chance of relapsing. This finding supports the finding by Lavretsky (2017) who reported that patients who presented with severe hallucinations in their study showed a higher likelihood of relapse with a ( $p = 0.001$ ).

This study findings concluded that poor medication collection was associated with other factors like being far from the hospital and not having taxi money to travel to the hospital and medicine availability at the hospital with a p value of 0.006 respectively. Generally, according to this study, there was a significant association between medication side effects in patients and mental illness relapse with a ( $p = 0.06$ ). This supports Magura, Rosenblum, and Fong (2012), who found that medication adherence was associated with medication related variables (more side effects), as well as cognitive variables and social factors.

However, the Fisher exact test analysis did find a significant association between mental illness relapse and medication defaulting factors with a ( $p = 0.05$ ). This supports San, Bernardo, Gomez, and Pena (2012) who reported that adherence to treatment in the previous 3 years was significantly associated with relapse.

According to the findings, there was no association between home visit by the nurse and mental illness relapse, whereas medication side effects was associated with relapse, while

poor medication was associated with other factors, and hallucination was associated with relapse.

### **5.3 CONCLUSION**

This study highlighted the factors patients with mental illness and their caregivers find to be mostly influencing relapse.

The objectives of this study were to:

- Determine the factors the patients associate with relapse in mentally ill patients at Intermediate Hospital Oshakati;
- Determine the factors the caregivers associate with relapse in mentally ill patients at Intermediate Hospital Oshakati; and
- Analyse the correlations between different factors associated with relapse in mentally ill patients at Intermediate Hospital Oshakati.

#### **5.3.1 Conclusion on objective one**

Objective one of this study was to determine the factors the patients associate with relapse in mentally ill patients at Intermediate Hospital Oshakati. The results of the study indicated some significant findings. The study conclusions were drawn from the patients' demographic data and the factors they associate with relapse.

The study has indicated that most of the patients were unemployed and only depending on the social disability grant as a source of income and they indicated that most of them stay in rural areas. Therefore, the study revealed that those patients have difficulties with

collecting medicines and the unavailability of antipsychotics at local health facilities makes it difficult. The study found a need to create extra source of income for patients.

There is clear evidence that there are certain factors that are associated with relapse among mentally ill patients. The study found out that factors like non-adherence of medication due to feeling better and medication side effects, lack of understanding of the illness, unemployment, lack of illness education, lack of home visits, stigma and substance use appear to be the most likely factors that increase relapse. The management of mentally ill patients can be improved by addressing those factors.

The study revealed that relapse does not only affect the patients but also affects caregivers because caregivers play a role in financially supporting the patients. Patients with chronic mental illnesses may elude relapse if they take medicines regularly and receive social support (Hamanu, Yusuf, & Patra, 2017). Therefore, the researcher believes that the objective of the study which was to determine the factors the patients associate with relapse among the mentally ill has been achieved and this is evidenced in the discussion above.

### **5.3.2 Conclusion on objective two**

Objective two was to determine the factors the caregivers associate with relapse in mentally ill patients at Intermediate Hospital Oshakati. According to the caregivers, factors like lack of mental illness understanding, medications side effects, lack of family education, use of alcohol and unavailability of antipsychotics at the nearest health facility and stigmatisation can be associated with mental illness relapse.



Furthermore, according to this study, the caregivers need assistance from the mental health professionals, while the patients need their caregivers for support. This can only happen if the caregiver's needs are met through education and support. Hence, the objective was achieved.

### **5.3.3 Conclusion on objective three**

Objective three was to analyse the correlations between different factors associated with relapse in mentally ill patients at Intermediate Hospital Oshakati. This relationship was analysed further using the regression model, which concluded that there was an association between some factors and relapse among the mentally ill patients at IHO. The association was found to be between gender, marital status, source of income and relapse. There was also an association between mental illness diagnosis, the signs and symptoms patient have, and factors contributing to non-adherence to medication according to this study.

According to the respondents, factors that influence relapse are medications adherence and medications adherence is influenced by the prescribing of typical antipsychotic drugs that cause a lot of side-effects which leads to poor adherence. Some patients believe that they are cured, and this leads to them stopping taking their medications. Some respondents indicated lack of education on mental illness as having led to poor insights that later led to patients' relapse. The poor availability of medications in the rural areas makes it complicated and costly to come for follow ups and if the medications are not available at the pharmacy of the MoHSS, they cannot afford the costs of the medications at the private sector.

In addition, respondents also indicated substance use especially alcohol, other illness that comorbid with mental illness as having contributed to relapse among mentally ill patients at IHO.

Relapse is also influencing the quality of family support. If the support is not available or of poor quality, the patients struggle to cope on their own and they do not have the resources to sustain themselves or attend follow-up sessions. The results have also shown that there is a strong correlation between stressful life events and a relapse, and it seems as if a stressful event can trigger a relapse. It was also found by other studies that the use of substances is the mostly likely factor to increase the risk of relapse.

#### **5.4 LIMITATIONS OF THE STUDY**

Due to limited resources, the study was only conducted at Intermediate Hospital Oshakati, Oshana region and as such, this limited the ability of the researcher to generalise the findings to the rest of the population with mental illness in the rest of the country.

Despite this, the study only involved respondents from the ages of 18-60 years who were proven to have been recovering from mental illness to such an extent that they could understand the questions and give informed consent. This limited the number of respondents and disqualified persons who still have severe symptoms which cause them to relapse may be more than those in the study.

The questionnaire contained close-ended questions and few open-ended questions, and this limit the patients' choices of responses to certain questions. In addition, the data source for the caregivers was a self-administered questionnaire that could have resulted in different respondents interpreting the questionnaire differently and this may have caused

the aim of the question not be reached. Despite the mentioned limitations, the researcher believes that this study might be a reasonable source of information for researchers, health workers, educators, and policymakers.

## **5.5 RECOMMENDATIONS**

Based on the study findings, the following recommendations for practice and future research studies were made.

### **For hospital management to:**

- Implement the Integration of Mental Health Services into Primary Health Care services so that basic psychiatric medications are available at the nearest health facility to reduce travel costs and improve medications adherence, for easy follow up and health education to patients at community level.
- Avail atypical antipsychotics with fewer side effects as per the WHO recommendations.
- Support training programs on mental health care to update health care worker skills.
- Resourcing services, particularly from the non-government sector to a level that enables capacity to implement mental illness relapse prevention initiatives.
- Train health care workers to have the appropriate skills and knowledge to provide services that prevent mental illness relapse.
- Identify possible gaps in mental health services that contribute to relapses and initiate intervention strategies to counteract the identified gaps'

**For nurses to:**

- Equip their knowledge and skills on psychoeducation and be able to educate patients and their caregivers on the importance of medication compliance.
- Educate patients and caregivers on the danger of substance use and mental illness.
- Teach patients how to overcome side effects and when to see the doctors.
- Advocate for patients' review on typical medication by doctors as recommended by the WHO.
- Educate patients and caregivers on the dangers of substance abuse and mental illness.
- Teach the caregivers some skills for supporting the patient in this regard because it is critical for patients to have family support for them to stay on track and this pertains to treatment information concerning the disease's progression, medication regimens, the support needed, the availability of community-based support groups and life management skills, which should all be included in education.
- Improve psychoeducation at Intermediate Hospital Oshakati to avoid the relapse of mentally ill patients and improve the quality of life of patients with mental illness, specifically with a focus on early relapse detection and drug compliance.
- Liaise with occupational health professionals to assist patients to come up with other sources of income other than the disability grant.
- Home visits of mentally ill patients by nurses to be introduced at Intermediate Hospital Oshakati Psychiatric unit.

**For caregivers to:**

- Look for information and support to accept and understand the health condition of their patients, and their role in supporting the patients ongoing wellbeing.
- Create family and caregivers support group to maintain their own wellbeing.

**For patients to:**

- Look for information and support to accept and understand their health condition
- Develop an understanding of the following topics:
  - early warning signs of relapse, risk factors for relapse, including relapse prevention

**For future research to:**

- Explore further on contributing factors to relapse rates among severe mentally disordered patients should be investigated.
- Investigate the methods that health care providers may use to encourage adherence to psychotropic drugs. Such tactics can be researched and used to aid health care providers in their battle against relapse.

**5.6 SUMMARY**

In this chapter, the discussion, conclusion, limitations, and recommendations from the analysis of Chapter four were presented. The findings were concluded as per the study objectives and the recommendations were made for the main factors associated with relapse.

The results of the study indicated some significant findings. There is clear evidence that there are certain factors that are associated with relapse among mentally ill patients. The

study has found out that factors like non-adherence to medication due to feeling better and medication side effects, poor family support, lack of home visits and substance use appear to be the most likely factors that increase relapse. The management of mentally ill patients can be improved by addressing those factors.

Furthermore, the family caregivers need assistance from the mental health professionals while the patients need their families for support. This can only happen if the family's needs are met through education and support. Furthermore, this research is likely to be an eye opener to service providers.

Finally, more factors associated with relapse among mentally ill patients are still unknown as this study was the first of this nature in Namibia. Based on the findings, the recommendations were made for future research on the challenges in the management of relapse among mentally ill patients.

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## ANNEXURE A: RESEARCH ETHICAL CLEARANCE CERTIFICATE



### ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: SON /477/2019

Date: 8 August, 2019

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

**Title of Project:** Factors Associated With Relapse Among Mentally Ill Patients At Intermediate Hospital Oshakati, Oshana Region

**Student:** HILMA NAKASHWA JULIANE KATANGOLO

**Student Number:** 200618202

**Supervisors:** *Dr Ndapeua N Shifiona (Main) Dr Wilma Wilkinson (Co)*

Take note of the following:

- (a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.
- (b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.
- (c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.
- (d) The UREC retains the right to:
  - (i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,
  - (ii) Request for an ethical compliance report at any point during the course of the research.

UREC wishes you the best in your research.

Dr. J.E. de Villiers: UREC Chairperson

A handwritten signature in black ink, appearing to be "J. de Villiers", written over a horizontal line.

Ms. P. Claassen: UREC Secretary

A handwritten signature in black ink, appearing to be "P. Claassen", written over a horizontal line.

ANNEXURE B: LETTER OF PERMISSION FROM UNAM POSTGRADUATE  
STUDIES RESEARCH COMMITTEE

CENTRE FOR POSTGRADUATE STUDIES

University of Namibia, Private Bag 13301, Windhoek, Namibia  
340 Mandume Ndemufayo Avenue, Pioneers Park  
☎ +264 61 206 3275/4662; Fax +264 61 206 3290; URL: <http://www.unam.edu.na>



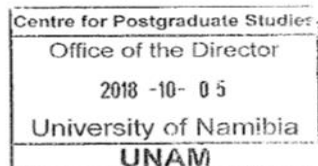
RESEARCH PERMISSION LETTER

Date: 30/09/2018

Student Name: Katangolo H N J

Student number: 200618202

Programme: Master in Nursing Science



Approved research title: Factors associated with relapse among mentally ill patients at Intermediate

TO WHOM IT MAY CONCERN

I hereby confirm that the above mentioned student is registered at the University of Namibia for the programme indicated. The proposed study met all the requirements as stipulated in the University guidelines and has been approved by the relevant committees.

The proposal adheres to ethical principles as per attached Ethical Clearance Certificate. Permission is hereby granted to carry out the research as described in the approved proposal.

Best Regards

Prof Marius Hedimbi

Director: Centre for Postgraduate Studies

Tel: +264 61 2063275

E-mail: [directorpgs@unam.na](mailto:directorpgs@unam.na)

05/10/18

Date

ANNEXURE C: LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH  
ON MOHSS PREMISES

Ms Hilma NJ Katangolo

P.o box 397

Tsandi

Namibia

17 October 2018

Permanent Secretary

Ministry of Health and Social Services

Private Bag 13198

Windhoek

Namibia

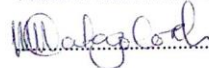
RE: APPLICATION FOR PERMISSION TO CONDUCT A RESEARCH STUDY ON THE MOHSS PREMISES

I am employed as a Registered nurse at Opuwo state hospital and I am currently enrolled as a part time student for the master of nursing science at the University of Namibia.

I am doing research as part of the fulfillment of the master degree. The title of my research study is "factor associated with relapse among mentally ill patient, intermediate hospital Oshakati, Oshana region".

It is against this background that I'm seeking permission from your good office to conduct my academic investigation in your health facilities. Hereby enclosed is the research proposal.

Yours in health and education



Ms. Hilma Nakashwa Juliane Katangolo

ANNEXURE D: LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH  
AT OSHAKATI PSYCHIATRIC UNIT

HNJ Katangolo

P. o box 397

Tsandi

Cell no 0814218807

26 November 2019

The Regional health directorate

Oshana Region

Private bag 5501

Oshakati

Dear Sir/ Madam

NOTIFICATION OF THE RESEARCH TO BE CONDUCTED AT OSHAKATI PSYCHIATRIC UNIT

I, Hilma Juliane Nakashwa Katangolo enrolled for the Master degree in nursing science at the University of Namibia; I would like to notify you about the research that will take place at intermediate hospital Oshakati. As per requirement for Master degree I am requested to conduct a research. I am hereby, to inform your office that I would like to collect research's data at your institution as I'm interested in the topic of **"Factors associated with relapse among mentally ill patient at intermediate hospital Oshakati, Oshana region.** The study will target mentally ill patient and their caretakers who will be seen at Oshakati psychiatric Unit, Outpatient department and who have been living with mental illness for more than 6 months. I am planning to conduct the study from January 2020 to March 2020.

Attached is an approval letter from UNAM ethical committee and MOHSS research committee.

I will be happy if my letter reaches your favorable consideration and your cooperation will be highly appreciated.

Thank you

Yours in health and education

HNJ Katangolo



ANNEXURE E: PERMISSION FROM THE OFFICE OF THE PERMANENT  
SECRETARY OF THE MOHSS



REPUBLIC OF NAMIBIA

*Ministry of Health and Social Services*

Private Bag 13198  
Windhoek  
Namibia

Ministerial Building  
Harvey Street  
Windhoek

Tel: 061 - 203 2537  
Fax: 061 - 222558  
E-mail: btjivambi@mhss.gov.na

OFFICE OF THE PERMANENT SECRETARY

Ref: 17/3/3 HK  
Enquiries: Mr. B. Tjivambi

Date: 16 November 2018

Ms. Hilma. N. J. Katangolo  
PO Box 397  
Tsandi  
Namibia

Dear Ms. Katangolo

**Re: Factors associated with relapse among mental ill patients at Intermediate Hospital Oshakati, Oshana Region.**

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
  - 3.1 The data to be collected must only be used for academic purpose;
  - 3.2 No other data should be collected other than the data stated in the proposal;
  - 3.3 Stipulated ethical considerations in the protocol related to the protection of Human Subjects should be observed and adhered to, any violation thereof will lead to termination of the study at any stage;



- 3.5 Preliminary findings to be submitted upon completion of the study;
- 3.6 Final report to be submitted upon completion of the study;
- 3.7 Separate permission should be sought from the Ministry for the publication of the findings.
4. All the cost implications that will result from this study will be the responsibility of the applicant and not of the MoHSS.

Yours sincerely,

  
MR. B.T. NANGOMBE  
PERMANENT SECRETARY





ANNEXURE F: PERMISSION LETTER FROM THE OFFICE OF THE ACTING  
MEDICAL SUPERINTENDENT OF INTERMEDIATE HOSPITAL OSHAKATI



9 - 0/0001

**REPUBLIC OF NAMIBIA**

**Ministry of Health and Social Services**

Private Bag 5501

Tel: + 264 65 2233019

OSHAKATI

INTERMEDIATE HOSPITAL OSHAKATI

Fax: + 264 65 224564

Enq: Ms. N. L. Kadila

05 December 2019

TO: Ms. Hilma N. J. Katangolo  
P. O. Box 397  
Tsandi  
Cell: +264 814218807

Dear Ms. Katangolo

**RE: AUTHORIZATION TO CONDUCT A RESEARCH STUDY.**

This is to inform you that your request to conduct a research study in Oshakati Intermediate Hospital has been approved.

Kindly be informed that confidentiality of the patient information seen during your research must be observed. In case of breach of confidentiality, you will be charged by the Nursing Council of Namibia Regulation Act.

We wish you all the best during your research. The hospital need to receive a copy of your research for our archive when you have completed your study.

Yours sincerely

  
DR. V. K. AMUTENYA  
ACTING MEDICAL SUPERINTENDENT  
INTERMEDIATE HOSPITAL OSHAKATI



*"Your Health is our concern"*

ANNEXURE G: PARTICIPANT INFORMATION LEAFLET AND CONSENT  
FORM



**TITLE OF THE RESEARCH PROJECT: FACTORS ASSOCIATED WITH  
RELAPSE AMONG MENTALLY ILL PATIENT AT INTERMEDIATE  
HOSPITAL OSHAKATI, OSHANA REGION**

**REFERENCE NUMBER:**

**PRINCIPAL INVESTIGATOR: HILMA NAKASHWA JULIANE KATANGOLO**

**ADDRESS: OPUWO, PRIVATE BAG 3003, OPUWO**

**CONTACT NUMBER: 0814218807**

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff or doctor any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary**, and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the Research Ethics Committee at The University of Namibia and will be conducted according to the ethical guidelines and principles of the

international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and Namibian National Research Ethics Guidelines.

### **1. What is this research study all about?**

(a) This study will be conducted at Oshakati psychiatric unit; the participants will be approximately 196 patients and their 196 caregivers.

(b) The study aims to identify factors associated with relapse among mentally ill patients. This will enable the mental health provider to improve and identify new intervention for caring mentally ill patients and it will assist in reducing relapse among mentally ill patients.

(c) All patients and their caregivers who are aged 18-60 are having equal chances of being selected to participate in the study as the selection will be done randomly.

(d) All patients and their caregivers will be humbly requested by the investigator to give verbal and written consents. Once the consents to participate in the study are obtained questionnaire will be distributed to the caregivers and patient. There is no right or wrong answer.

(e) No medications will be administered

### **2. Why have you been invited to participate?**

You are invited to participate in this study because you have met all the criteria the researcher is interested in.

### **3. What will your responsibilities be?**

(a) Your participation in this study will be through answering a questionnaire.

(b)The estimated time will be 15-20 minutes and it is available in English and Oshiwambo; however, if there is a need for translation it will be done by the researcher.

**4. Will you benefit from taking part in this research?**

(a)There are no direct benefits to you, however if you agree to participate in this study, your contribution will be useful in improving interventions that are currently applied to prevent relapse among mentally ill patients. Your participation will also help in formulating new interventions which will be used to minimize relapse in individual with mental illness.

**5. Are there in risks involved in your taking part in this research?**

(a)We do not expect any harm will happen to you by participating in this study.

**6. If you do not agree to take part, what alternatives do you have?**

(a)Taking part in this study is completely your choice. You are free to skip any questions if you feel uncomfortable to disclose the information. If you choose not to participate in the study or decide to start participating in the study, you will continue to receive all health services that you normally get at this unit. You can stop in this study at any time even if you have already given your consent and even if you refuse now but you wish to participate later, we will be ready to accept you.

**7. Who will have access to your medical records? (Where applicable)**

(a)The information collected will be treated as confidential and protected. If it is used in a publication or thesis, the identity of the participant will remain anonymous as it will be only the researcher will have access to it and it will be labelled with number instead of your name. If there is a need to be shared to the research team it will be anonymous.

**8. What will happen in the unlikely event of some form injury occurring as a direct result of your taking part in this research study?**

(a) We do not expect any harm to occur to you by participating in this study. However, if any physical or psychological injury resulting in participating in this research occurs, we will provide you medical/psychological treatment as per standards treatment guidelines of Namibia. There will be no additional compensation to you.

**9. Will you be paid to take part in this study and are there any costs involved?**

(a) There is no material or financial benefits attached to participating in this research study; this is done on volunteer basis.

**10 . Is there anything else that you should know or do?**

You can contact the Centre for Research and Publications at +264 061 2063061; [pclaassen@unam.na](mailto:pclaassen@unam.na) if you have any concerns or complaints that have not been adequately addressed by the investigator.

You will receive a copy of this information and consent form for your own records.

**11. Declaration by participant**

By signing below, I ..... agree to take part in a research study entitled “**Factors associated with relapse among mentally ill patient at Intermediate Hospital Oshakati, Oshana region**”

**I declare that:**

- a) I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.

- b) I have had a chance to ask questions and all my questions have been adequately answered.
- c) I understand that taking part in this study is **voluntary** and I have not been pressurized to take part.
- d) I may choose to leave the study at any time and will not be penalized or prejudiced in any way.
- e) I may be asked to leave the study before it has finished, if the study doctor or researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (place) ..... on (date) .....  
2020.

Signature of participant      Signature of witness

### **11. Declaration by investigators**

I Hilma Nakashwa Juliane Katangolo declare that:

- I explained the information in this document to .....
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (If an interpreter is used then the interpreter must sign the declaration below.

Signed at (place) ..... on (date) ..... 2019

Signature of investigator      Signature of witness

**12. Declaration by interpreter**

I .....declare that:

- a) I assisted the investigator (name) ..... to  
explain the information in this document to (name of participant)  
..... using the language medium of  
(Oshiwambo, Otjiherero, Afrikaans, etc.)

## ANNEXURE H: RESEARCH QUESTIONNAIRE FOR CAREGIVERS

**Survey instrument for measuring relapse in Oshakati psychiatric unit for caregivers.**

### SECTION 1

**Your completion of questionnaire indicates that you have agreed to partake in the study.**

#### 1. DEMOGRAPHIC DATA

Kindly respond to the following by marking X in the appropriate box

1.1 Gender

Male ☐ Female ☐

1.2 Age .....

1.3 Home language

Oshiwambo ☐ Otjiherero ☐ Damara>Nama ☐ Rukwangali ☐ Afrikaans ☐

English ☐ Other (specify)...☐ .....

1.4 Marital status

Single ☐ Married ☐ Divorced ☐ Widowed ☐ Co-habitation ☐

1.5 Relationship of caregivers to the patient

Parent ☐ Guardian ☐ Relative (brother, sister and cousin) ☐ Child ☐

Spouse ☐ Other (specify)...☐ .....

1.6 Home



Rural ☐ Urban ☐ Informal settlement ☐

1.7 Source of income

Employment ☐ Sheltered employment ☐ Disability grant ☐ Selling ☐ Farming ☐

1.8 Type of dwelling

Traditional house ☐ Modern house ☐ Zinc house ☐

Other (specify)... ☐ .....

1.9 Educational level

Never attend school ☐ Grade 1-5 ☐ Grade 6-9 ☐ Grade 10-12 ☐ Tertiary education ☐

1.10 Religious affiliations

Seventh Day Adventist ☐ Lutheran ☐ Revival ☐ Roman Catholic ☐ Anglican ☐

Other (specify).. ☐ .....

**SECTION B**

**2. FACTORS ASSOCIATED WITH RELAPSE**

**2.1 Knowledge of mental illness, treatment and care**

2.1.1 What is mental illness? Tick most appropriate answer

Thinking problem ☐ Mood problem ☐ Behaviors' problem ☐

Eating problem ☐ Sleeping problem ☐

Other (please specify).. ☐ .....

2.1.2 Which of the following mental illness your relative suffering from? *Tick one only*

Schizophrenia ☐ Bipolar mood disorder ☐ Anxiety disorder ☐ Depression ☐

Addictive disorder ☐ others (please specify).....

2.1.3 Which of this statement are true/ false about mental illness? TRUE FALSE

Mentally ill patient should take medication for the rest of his/her life ☐ ☐

Mentally ill patient can do all works like other people ☐ ☐

Mental illness cannot be treated ☐ ☐

2.1.4 Have your relative ever experience these symptoms? *Tick all symptoms experienced*

Seeing things that people with him/her could not see ☐

Hearing the voices that people with him/her could not hear ☐

Inability to sleep ☐

Believing that she/he is someone whom you know he/she is not really him/her for example believing you are the president ☐

Very happy and full of energy ☐

Confused ☐

Argument and angry over small things ☐

## 2.2 Treatment history and admission

**Tick the most appropriate answers**

2.2.1 How many times he/she have been admitted due to mental illness in the past 3 years?

1-3 times ☐ 3-6 times ☐ 7-10 times ☐ 10 times and more ☐

2.2.2 Which of the following symptoms were there whenever he/she admitted?

Lack of sleeping ☐ Walking around ☐ Hearing unusually voices ☐

Seeing unusually things ☐ Talking to her/himself ☐ Removing clothes ☐

Argument at home ☐ Confused ☐

2.2.3 How do you understand the word relapse?

Relapse means worsening of the mental illness ☐

Relapse is a worsening of psychotic symptoms ☐

During relapse you are admitted several times ☐

2.2.4 Do you think he/she have relapsed? YES ☐ NO ☐

If the answer above is yes can you explain possible causes?.....

2.2.5 When he/she relapsed which symptoms he/she experienced? *Tick all symptoms experienced*

Confused ☐ Argument ☐ Seeing things that people with him/her cannot see ☐

Sleepless night ☐ Full of energy ☐

**2.3 Medications knowledge, type, doses, side effects, adherence, accessibility and availability (Please write the answers on the space provided)**

2.3.1 Which medications he/she is currently taking?

.....

2.3.2 Before relapse did he/she ever stop medication? YES ☐ NO ☐

If you choose yes above, list the reason here.....

2.3.3 Do he/she have any medication side effects? Yes ☐ No ☐

If you choose yes above, list the side effects here.....

2.3.4 Does he/she have problems with collecting medication? Yes ☐ No ☐

If you choose yes above, list the problem here.....

## 2.4 Support system availability, quality and impact on caregivers

**Please tick the most appropriate answer**

2.4.1 There are people encouraging him/her to stop medication

Never ☐ Sometimes ☐ Always ☐

2.4.2 Which support he/she got at home

Transport money to go for follow up ☐ Encouragements to take medications ☐

Taking him/her to the clinic ☐ Providing food ☐

2.4.3 Did you ever received information on the following topics? YES NO

Mental illness ☐ ☐

Signs and symptoms of relapse ☐ ☐

Medications and its side effects ☐ ☐

☐ ☐

Follow up date and its importance

2.4.4 How was this information?

Understandable ☐ Easy to follow ☐ In official language ☐

In your indigenous language ☐ not clear ☐

2.4.5 How often does the mental health nurse visit him/her at home?

Never ☐ Once per year ☐ More than twice per year ☐

2.4.6 Where did he/she sleeps previous days before you bring him/her to the hospital?

.....

2.4.7 What does he/she need to cope with mental illness?.....

2.4.8 Which of the substance he/she mostly use (tick one only)

Alcohol ☐ Cocaine ☐ Marijuana ☐ Tobacco

None of the above ☐ ☐ Other (specify).....

2.4.9 How long it will take him/her to be admitted or visit a hospital with psychotic symptoms after taking the above-mentioned substance

.....

**2.5 Comorbidity**

Does he/she have any other illness apart from mental illness? Yes ☐ No ☐

If yes write it here.....

**2.6 Psychosocial stressor**

Did he/she ever go through the following situations before admission? *Tick all applicable*

Death of the close relative ☐ Financial problem ☐ Physical abuse ☐

Discrimination/stigma ☐ Bullying ☐ Unplanned pregnancy ☐

Divorce or breakup ☐

Other (please specify here)..... ☐

THANK YOU FOR ANSWERING MY QUESTIONNAIRE!!!!

## ANNEXURE I: RESEARCH QUESTIONNAIRE FOR PATIENT

**Survey instrument for measuring relapse in mentally ill patients at Oshakati psychiatric unit.**

### SECTION A

**Your completion of questionnaire indicates that you have agreed to partake in the study.**

#### 1. DEMOGRAPHIC DATA

Kindly respond to the following by marking X in the appropriate box

1.1 Gender

Male ☐ Female ☐

1.2 Age .....

1.3 Home language

Oshiwambo ☐ Otjiherero ☐ Damara>Nama ☐ Rukwangali ☐ Afrikaans ☐

English ☐ Other (specify)....☐.....

1.4 Marital status

Single ☐ Married ☐ Divorced ☐ Widowed ☐ Co-habitation ☐

1.5 Relationship to caregivers

Parent ☐ Guardian ☐ Relative (brother, sister and cousin) ☐ Child ☐

Spouse ☐ Other (specify)....☐.....

1.6 Home

Rural ☐ Urban ☐ Informal settlement ☐

1.7 Source of income

Employment ☐ Sheltered employment ☐ Disability grant ☐ Mining ☐ Farming ☐

1.8 Type of dwelling

Traditional house ☐ Modern house ☐ Zinc house ☐

Other (specify)... ☐ .....

1.9 Educational level

Never attend school ☐ Grade 1-5 ☐ Grade 6-9 ☐ Grade 10-12 ☐ Tertiary education ☐

1.10 Religious affiliations

Seventh Day Adventist ☐ Lutheran ☐ Revival ☐ Roman Catholic ☐ Anglican ☐

Other (specify)... ☐ .....

**SECTION B**

**2. FACTORS ASSOCIATED WITH RELAPSE**

**2.1 Knowledge of mental illness, treatment and care**

2.1.1 What is mental illness? Tick most appropriate answer

Thinking problem ☐ Mood problem ☐ Behaviors' problem ☐

Eating problem ☐ Sleeping problem ☐



Other (please specify).. ☐ .....

2.1.2 Which of the following mental illness you are suffering from? *Tick one only*

Schizophrenia ☐ Bipolar mood disorder ☐ Anxiety disorder ☐ Depression ☐

Addictive disorder ☐ others (please specify).....

2.1.3 Which of this statement are true/ false about mental illness? TRUE FALSE

Mentally ill patient should take medication for the rest of his/her life ☐ ☐

Mentally ill patient can do all works like other people ☐ ☐

Mental illness cannot be treated ☐ ☐

2.1.4 Have you ever experience these symptoms? *Tick in the box* of all symptoms you have experienced

Seeing things that people with you could not see ☐

Hearing the voices that people with you could not hear ☐

Inability to sleep ☐

Believing that you are someone whom you know you are not really him/her for example believing you are the president ☐

Very happy and full of energy ☐

Confused ☐

Argument and angry over small things ☐

## 2.2 Treatment history and admission

**Tick the most appropriate answers**

2.2.1 How many times you have been admitted due to mental illness in the past 3 years?

1-3 times ☐ 3-6 times ☐ 7-10 times ☐ 10 times and more ☐

2.2.2 Which of the following symptoms were there when you are ever admitted? *Tick in the box* of all symptoms you have experienced

Lack of sleeping ☐ Walking around ☐ Hearing unusually voices ☐

Seeing unusually things ☐ Talking to yourself ☐ Removing clothes ☐

Argument at home ☐ Confused ☐

2.2.3 How do you understand the word relapse?

Relapse means worsening of the mental illness ☐

Relapse is a worsening of psychotic symptoms ☐

During relapse you are admitted several times ☐

2.2.4 Do you think you have relapsed? YES ☐ NO ☐

If the answer above is yes can you explain possible causes?

.....

2.2.5 When you relapsed which symptoms you experienced? Tick all symptoms experienced

Confused ☐ Argument ☐ Seeing things that people with you cannot see ☐

Sleepless night ☐ Full of energy ☐

### **2.3 Medications knowledge, type, doses, side effects, adherence, accessibility and availability**

**Please write the answers on the space provided**

2.3.1 Which medications you are currently taking?

.....

2.3.2 Before relapsed did you ever stop your medication? YES ☐ NO ☐

If you choose yes above, list the reason here.....

2.3.3 Do you have any medication side effects? Yes ☐ No ☐

If you choose yes above, list the side effects .....

2.3.4 Do you have problems with collecting medication? Yes ☐ No ☐

If you choose yes above, list reasons here.....

### **2.4 Support system availability, quality and impact on caregivers**

**Please tick the most appropriate answer**

2.4.1 There are people encouraging you to stop medication

Never ☐ Sometimes ☐ Always ☐

2.4.2 Which support you got at home?

Transport money to go for follow up ☐ Encouragements to take medications ☐

Taking me to the clinic ☐ Providing food ☐

2.4.3 Did you ever received information on the following topics? YES NO

Mental illness	<input type="checkbox"/>	<input type="checkbox"/>
Signs and symptoms of relapse	<input type="checkbox"/>	<input type="checkbox"/>
Medications and its side effects	<input type="checkbox"/>	<input type="checkbox"/>
Follow up date and its importance	<input type="checkbox"/>	<input type="checkbox"/>

#### 2.4.4 How was this information?

Understandable ☐ Easy to follow ☐ In official language ☐

In your indigenous language ☐ not clear ☐

#### 2.4.5 How often does the mental health nurse visit you at home?

Never ☐ Once per year ☐ More than twice per year ☐

2.4.7 Where did you sleep previous days before you come to the hospital?.....

2.4.7 What do you need to cope with mental illness?.....

#### 2.4.7 Which of the substance you use mostly (*Tick one only*)

Alcohol ☐ Cocaine ☐ Marijuana ☐ Tobacco ☐

None of the above ☐ Other (specify).....

2.4.8 How long it will take you to be admitted or visit a hospital with psychotic symptoms after taking the above-mentioned substance .....

### 2.5 Comorbidity

Do you have any other illness apart from mental illness? Yes ☐ No ☐

If yes write it here.....

## 2.6 Psychosocial stressor

Have you ever gone through the following situations before admission?

Death of the close relative ☐ Financial problem ☐ Physical abuse ☐

Discrimination/stigma ☐ Bullying ☐ Unplanned pregnancy ☐

Divorce or breakup ☐

☐ Other (please specify here) .....

THANK YOU FOR ANSWERING MY QUESTIONNAIRE!!!!