FACTORS INFLUENCING RELAPSE AMONG PATIENTS WITH SCHIZOPHRENIA IN MUHIMBILI NATIONAL HOSPITAL: THE PERSPECTIVES OF PATIENTS AND THEIR CAREGIVERS

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By

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CERTIFICATION

The undersigned certify that they have read and hereby recommend for examination of dissertation entitled ***Factors Influencing Relapse among Individuals with Schizophrenia: the Perspectives of Patients and Their Care Givers***, in fulfillment of the requirements for the degree of Master of Science Nursing (Mental Health) of Muhimbili University of Health and Allied Sciences.

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Date: 13 July 2012

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Date: 12th JULY 2012

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AND
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I, **Adellah Sariah,** declare that this **dissertation** is my original work and that it has not been presented and will not be presented to any other university for similar or any other degree award.

Signature ....Sariah..... Date....13th July 2012

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All this has been done for God's grace and glory.

DEDICATION

I dedicate this dissertation to my wonderful family. Particularly to my understanding and patient husband, Victor who has put up with these many months of research and to our precious children, Vinn and Alyssa who are the joy of our lives.

Abstract

Background

Relapse in patients with schizophrenia is a major challenge for mental health service providers in Tanzania and other countries. Approximately 10% of patients with schizophrenia are re-admitted due to relapse at Muhimbili National Hospital (MNH) Psychiatric Unit each month. Relapse brings about negative effects and it results in a huge burden to patients, their families and mental health sector and country economy as well. So far no study has been done to address relapse in Tanzania. That is why there is a need to find out as to why individuals with schizophrenia experience relapse.

Objectives

This study aimed to explore perspectives on factors influencing relapse to patients with schizophrenia and their caregivers attended at Muhimbili National Hospital Psychiatric Out-patient Department, Dar es Salaam, Tanzania.

Methodology

A qualitative study was conducted, involving in-depth interviews of 7 schizophrenic out-patients and their 7 caregivers at MNH Psychiatric Out-patient Department in Dar es Salaam, Tanzania. Purposive sampling procedure was used to select participants for the study. Audio recorded in-depth interviews in Swahili language were conducted with all participants in the study. The recorded information was transcribed to text in computer files and analyzed by using NVivo 9 computer assisted qualitative data analysis software.

Findings

Personal and environmental factors for relapse were the main themes that emerged from this study. Patients and their caregivers perceived non adherence to antipsychotic medication as a leading factor to relapse. Other factors included poor family support, stressful life events and substance use. Family support, adherence to antipsychotic medication, employment and religion were viewed as protectors of relapse. Participants suggested strengthening mental health psychoeducation sessions and community home visits conducted by mental health nurses to help reduce relapse. Other suggestions included strengthening of nurse-patient therapeutic relationship in provision of mental health care.

Conclusion and recommendations

It is important for mental health nurses to strengthen their therapeutic relationships with patients and their caregivers. Regular individual psychoeducation sessions and community based interventions would help reduce relapse and mental health service

costs. Further larger studies with more diverse sample of people with schizophrenia and their caregivers are necessary to understand the issue of relapse in patients with schizophrenia.

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Abbreviations

CBT	Cognitive Behavioural Therapy
CR	Criticism
DALYs	Disability Adjusted Life Years
EE	Expressed Emotion
EOI	Emotional Over-involvement
HKMU	Hubert Kairuki Memorial University
IDIs	In-depth Interviews
MNH	Muhimbili National Hospital
MOHSW	Ministry of Health and Social Welfare
MUHAS	Muhimbili University of Health and Allied Sciences
NBS	National Bureau of Statistics
OPD	Out Patient Department
WHO	World Health Organization

CHAPTER 1

1.1 Background

Schizophrenia is a disabling group of brain disorders characterized by symptoms such as hallucinations, delusions, disorganized communication, poor planning, reduced motivation, and blunted affect (McGrath, Saha, Welham, Saadi, MacCauley & Chant, 2004). In the Global Burden of Disease 2004 study, psychiatric disorders accounted for 3.4% of the total Disease Adjusted Life Years (DALYs) in the African region, of these, schizophrenia accounted for 0.5% of total DALYs (WHO, 2011).

Schizophrenia is often accompanied by relapse even while on treatment (Gelder, Lopez-Ibor & Andreasen, 2000). Relapse has been defined as a worsening of psychopathological symptoms or rehospitalization in the year after hospital discharge (Schennach, Obermeier, Meyer, Jäger, Schmauss & Laux, et al., 2012). Schizophrenia follows a variable course, with complete symptomatic and social recovery in about 1/3 of cases. Schizophrenia can however follow a chronic or reccurent course, with residual symptoms and incomplete social recovery. Individuals with chronic schizophrenia constituted a large proportion of all residents of mental institutions in the past and still do where these institutions continue to exist (WHO report, 2001).

An international survey was done to shed light on experiences and insights of family caregivers of individuals with schizophrenia, bipolar disorders and schizoaffective disorder. 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. Care givers from Australia, Canada, Germany, France, Italy, Spain, United Kingdom and United States participated in the survey. Of the 502 (51.12%) caregivers who said their family member stopped taking medication despite doctor's advice, 91% claimed that this led to relapse for their family member. 838 (85.34%) caregivers said their family members experienced relapse. As a result of relapse their loved ones were unable to work (72%), were hospitalized (69%), attempted suicide (22%) and imprisoned (20%.) More than one third of care givers said that their family members relapsed five or more times since becoming diagnosed, leaving a majority of care givers to often worry about their relatives relapsing (World Federation for Mental Health & Eli, Lilly & Company, 2008)

A few studies regarding relapse and schizophrenia have been done in Africa. Studies done in South Africa have found that 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 (Kazadi, Moosa & Jeenah,

2008). Other factors that have been identified include: lack of social support, grief following the loss of a close family member, and lack of employment.

Mental disorders generally respond to psychological and social interventions and to medications. At the district and primary care levels, problems with medication procurement and distribution hamper the ready availability of psychotropic medications, which is aggravated by a lack of resources, poor advance planning, and stigma about the need for mental health interventions by those involved in the distribution process. Basic psychosocial support is readily deliverable at the primary care level if teams are given appropriate general training. More complex psychotherapies, such as cognitive-behavioral therapy and interpersonal therapy, require more extensive training and sustained supervision. Thus it will be some time before adequate human resources exist to make these treatments generally available on a national population basis in sub-Saharan Africa (Jenkins et al., 2010).

Relapse may result in hospitalization, treatment resistance, cognitive impairment due to progressive structural brain damage, personal distress, incarceration and interference with rehabilitation efforts (Piggot, Carson, Saha, Torbeyns, Stock & Ingenito, 2003).

Therefore exploration of factors influencing relapse among patients with schizophrenia is a prerequisite in promoting mental health and preventing relapse in schizophrenia. However studies for schizophrenia especially on factors influencing relapse are rare in Africa, including Tanzania. This study is intended to start addressing that need.

1.2 Problem statement

The most common outcome of schizophrenia is a declining course with one or multiple relapses in 50-92% of cases (Suzuki, Yasumura, Fukao & Otani, 2003). Tanzania's national hospital's Department of Psychiatry, admits about 150 patients with different psychiatric disorders per month: 15 (10%) of these are readmissions due to relapse in schizophrenia. Apart from patients attending the clinic for follow-up, approximately 15 patients with specific psychiatric problems are attended per day within the department.

The number of patients needing mental health and psychiatric care overloads the available mental health care team and the shortage of trained nurses in Muhimbili National Hospital Psychiatric Unit is a major problem. The psychiatric unit has a total of 50 trained nurses. Two (2) trained nurses attend patients in male/female general ward per shift, thus a ratio of 1 nurse: 12 patients. This is a large number of patients for a nurse to provide quality mental health nursing care.

Most drugs available in the Psychiatric Unit are typical antipsychotics which have a lot of extrapyramidal side effects. These side effects have been found to be a reason why patients do not adhere to antipsychotic medication (Sharif & Ogunbanjo, 2003). Atypical antipsychotics (most commonly Risperidone and Olanzepine) with lesser extrapyramidal side effects are usually not available; hence patients have to buy the drugs for themselves. Sometimes they cannot afford to buy them due to poor social economic status which is made worse by the mental illness hence they go without medications which may result into relapse.

Inpatient wards in the Psychiatric Unit are not well structured; patients are locked in the wards most of the time. This does not allow for a good and quality therapeutic nurse- patient relationship and communication. This kind of structure prevents nurse patient interaction and hinders nurses' exploration of patients' problems and concerns which if identified in advance can lead to interventions that can perhaps help to reduce relapse. It also makes it difficult for the patient to easily express his or her concerns to the mental health nurse.

The Psychiatric Unit provides community mental health services which are not well established. Community mental health aims to assist primary health services with promotion of mental health, detection, prevention and early treatment of minor and acute psychiatric conditions as close as possible to the patients' home. There is only one community mental health nurse in the unit who currently provides medication to patients who come for follow up visits at the out-patient clinic. Absence of these services deprives the community from benefits of case management, outreach clinics, family visits, family therapies; counseling and other psychotherapies, which

would also help reduce relapse in the community. Research is beginning to show that appropriate care and treatment in the community can reduce costly care in hospitals and emergency rooms. That is, appropriate and timely mental health interventions reduce future higher costs of mental health care (WHO, 2011).

Schizophrenia relapse is a major factor in generating high hospitalization rates and costs (Almond et al., 2004). Relapse of patients with schizophrenia is associated with substantial direct mental health costs that extend beyond the cost of hospitalization to other costly outpatient services and medication costs (Ascher-Svanum, Zhu, Faries, Salkever, Slade, Peng & Conley, 2010).

Relapse in schizophrenia has a lot of effects to patients, care givers, the health sector and the country economy at large. Patients tend to deteriorate in their level of functioning with each relapse; hence their contribution to economic activities diminishes. Caregivers have to take care of the patient's bills in the hospital once readmitted which becomes very costly. The health sector is imposed with a large burden and has to deal with the higher number of patients' re-hospitalization.

1.3 Significance of the study

In Tanzania, there is so far no published data regarding factors influencing relapse among patients with schizophrenia. Mental health care services are faced with a lot of challenges which in one way or another affects mental health service users. This is made worse by patient's psychosocial and environmental factors that can exacerbate symptoms which eventually lead to relapse.

This study is important because it has brought out insight about the factors most influencing relapse in patients with schizophrenia in the current context. These findings will provide a foundation for designing effective nursing interventions and help shape nurses' perceptions and their understanding of patients' concerns and experiences about schizophrenic relapse. Knowledge of these factors will help mental health service providers to improve the standards of mental health care and interventions that are currently applied in caring for in-patients and outpatients with schizophrenia at our setting and the whole country at large.

This study will set a foundation for future research on relapse in schizophrenia. Basing on evidence based practice, future research will enable, mental health service providers to identify new interventions for caring for schizophrenic patients and thus reduce relapse rates in patients with schizophrenia. This study has the potential to help influence health policy makers in improving mental health and reducing the burden of relapse in patients with schizophrenia, their families and community as a whole.

1.4 Statement of purpose

Relapse in patients with schizophrenia has been studied in other countries but none in Tanzania. This study starts addressing this gap. The purpose of the present study was to explore factors influencing relapse among patients with schizophrenia.

1.5 Research questions

1. What are the perceptions on factors influencing relapse of patients with schizophrenia and their caregivers?

2. How can mental health nurses best help reduce or prevent relapse?

1.6 Objectives

1.6.1 General objective

1. To explore perspectives on factors influencing relapse to patients with schizophrenia and their caregivers attended at Muhimbili National Hospital Psychiatric Out-patient Department.

1.6.2 Specific objectives

2. To explore perspectives on factors influencing relapse to patients with schizophrenia and their caregivers attended at Muhimbili National Hospital Psychiatric Out-patient Department.

3. To identify strategies that mental health nurses can use to reduce or prevent relapse.

1.7 Conceptual framework

This study was based on the vulnerability/stress model of schizophrenic relapse which was adapted from Neuchterlein & Dawson et al. (1992) and modified. The primary focus of this model is on the clinical course of schizophrenia rather than etiology. This model of relapse hypothesizes that genetic factors influence the development of certain vulnerability characteristics, which interact with relevant environmental and personal factors to modify the course of schizophrenia.

The framework shows that certain characteristics of individuals may serve as vulnerability factors (alterations in neurotransmitters especially dopamine, genetic inheritance and schizotypal personality traits). Individuals presenting with these vulnerability factors may be predisposed to schizophrenia and environmental stressors may precipitate psychotic periods in vulnerable individuals. Stressors in the form of discrete life events as well as the prevailing level of social environmental stress are seen as factors that interact with preexisting vulnerability characteristics to produce vicious circles, which lead to psychotic episodes.

The input components fall into three major classes (1) Personal vulnerability factors (2) Personal factors (3) Environmental factors. Thus fluctuations in either vulnerability factors, personal or environmental stressors might move the patient toward the hypothesized return of psychotic symptoms.

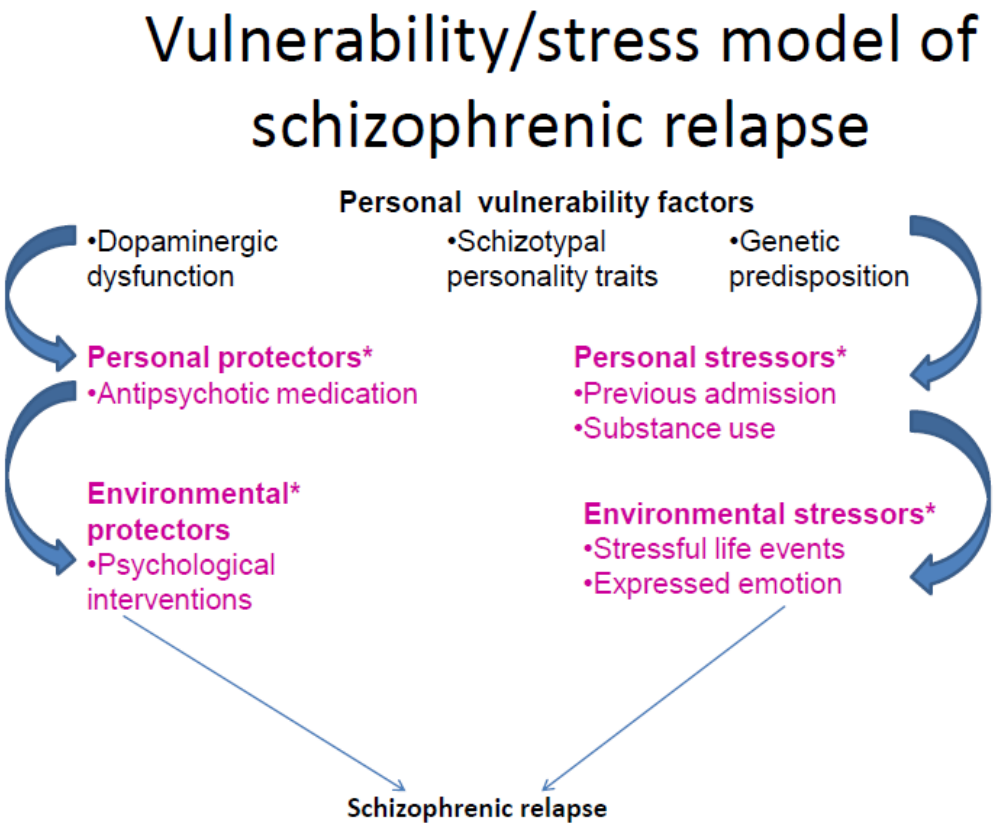

Figure 1 Vulnerability/stress model for schizophrenic relapse.

Note: * Addressed in this study.

The study addressed personal and environmental factors that influence relapse in schizophrenic patients. In this model of schizophrenic relapse and illness course, increase in either personal factors or environmental stressors or decrease in protective factors are viewed to result in relapse. This model was used throughout data collection, analysis and discussion of the findings of this study.

CHAPTER 2

2.1 Literature review

Relapse prevention is a major challenge in the care of patients with schizophrenia. Early identification and prevention of relapse in patients with schizophrenia has significant therapeutic social and economic implications (Kazadi et al., 2008).

2.1.1 Poor antipsychotic drug adherence

Schizophrenic patients usually present a partial or complete inability to follow their maintenance therapy, which causes an increased risk of exacerbations and relapses, more visits to mental health centers (if available), frequent hospitalizations, and suicide attempts. Compliance with treatment is made more difficult when certain characteristics exist, such as lack of insight, cognitive deterioration, paranoid ideations, and the absence of familial or social support (Gutiérrez-Casares, Cañas, Rodríguez-Morales, Hidalgo-Borrajo, & Alonso-Escolano, 2010).

Prevention of relapse is a major goal of maintenance treatment in patients with psychotic disorders. A study was done to compare a newer, atypical antipsychotic drug, Risperidone, and an older, conventional neuroleptic drug, Haloperidol, in terms of the rate of relapse in patients with schizophrenia and schizoaffective disorder. Randomly assigned adult outpatients in stable condition with chronic schizophrenia or schizoaffective disorder were grouped to receive treatment with flexible doses of either Risperidone (n=177) or haloperidol (n=188) for a minimum of one year. The Kaplan–Meier estimate of the risk of relapse at the end of the study was 34 percent for the Risperidone group and 60 percent for the Haloperidol group. Patients in the Risperidone group had greater reductions in the mean severity of both psychotic symptoms and extrapyramidal side effects than those in the Haloperidol group (Csernansky, Mahmoud & Brenner, 2002).

Chronic management of schizophrenia and schizoaffective disorders is frequently complicated by symptomatic relapse. A randomized, active-controlled, 2-year trial evaluated 710 patients with schizophrenia or related disorders who were switched from stable treatment with oral Risperidone, Olanzapine, or conventional neuroleptics to Risperidone long-acting injectable (RLAI) or oral Quetiapine. Primary effectiveness evaluation was time-to-relapse. The study involved a total of 666 patients (n=329 RLAI, and n=337 Quetiapine). The study found that relapse occurred in 16.5% of patients with RLAI and 31.3% with Quetiapine. Time-to-relapse in stable patients with schizophrenia or schizoaffective disorder was significantly longer in patients randomized to RLAI compared with those randomized to oral Quetiapine. Both antipsychotics were generally well tolerated (Gaebel, Schreiner, Bergman, Arce, Rouillon & Cordes, 2010).

Relapse and its predictors were examined among patients with schizophrenia in the year after hospital discharge. The sample included 200 patients with schizophrenia participating in a German multicenter study. Predictors examined were variables related to course of illness and to response and remission at discharge. The results showed that 52% of participants had a relapse. Patients whose symptoms were not in remission at discharge were more likely to have a relapse, as were those who had more severe symptoms and more side effects at discharge. Those who experienced a relapse were less likely to be taking a second-generation antipsychotic at discharge, less likely to have a positive attitude toward treatment adherence, and less likely to be employed (Schennach, et al., 2012).

Kazadi et al. (2008) in their study which recruited 217 patients with schizophrenia from mental health out patient clinics in Johannesburg who had attended the clinics between the period January 1995 and June 2005, found out that factors which were most likely to increase the risk of relapse in schizophrenia included co-morbid depressed mood and poor drug adherence that was commonly caused by patients' poor insight and medication side effects. Majority of clients on typical antipsychotics were found to experience drug side effects such as tremors, muscle rigidity, slurred speech, restlessness, painful muscle spasms and impotence which contributed much to their poor adherence. Poor insight was found to contribute to 5.2-times increase in the risk of relapse in individuals with poor drug adherence.

This has also been supported by Li & Arthur (2005). Their results demonstrated clearly that patients who did not adhere to medication regimes were more likely to relapse; this was found after they had compared relapse and adherence after discharge in a group of 89 patients.

Non-adherence with oral or depot (injectable) antipsychotic medication combined was associated with increased frequencies of relapses, being persistent psychotic, and an increased risk of being admitted to the hospital in patients with recent onset schizophrenia (Morken et al., 2008). In this study it was demonstrated that the Odds Ratio (OR) of having a psychotic relapse was 10.27 among non adherent patients. A summary of the above information is provided on the table below:

Table 1 Patients' Non Adherence to Antipsychotics and Relapse Rates in Schizophrenia.

Place of study	Authors (Date)	Respondents (N)	% of non adherence	% of relapse
South Africa	Kazadi et al.(2008)	217	63.59% (n=138)	80.4% (n=107)
China	Li & Arthur (2005)	89	35.95% (n=32)	56.25% (n=18)
German	Schennach et al. (2012)	200	Not specified	52% (n=104)

2.1.2 Previous admissions

A history of previous admissions has been found to be associated with relapse and multiple psychiatric readmissions. Silva et al. (2009) in their case control study found that patients with a greater number of previous admissions were more likely to relapse and hence experience multiple admissions.

In a 5 year retrospective record review, Yussuf et al. (2008) found socio-demographic factors that predicted the rate of readmission including young age, and clinical factors such as history of multiple admissions, longer length of stay and diagnosis of schizophrenia.

2.1.3 Stressful life events

Patients with schizophrenia are more sensitive and more susceptible to the negative effects of even minor stressors. A study in Nigeria found that these stressors included lack of employment (17%), grief following loss of a close family member (20%), and lack of social support (20%). Others involved chronic interpersonal stress, stigma, poverty homelessness and criminal victimization (Mwaba & Molamu, 1998, as cited in Kazadi et al., 2008).Stressful life events are often associated with the onset of a psychotic relapse, usually in the 3 weeks prior the relapse (Murray & Castle, 2000, as cited in Kazadi et al., 2008).

Individuals utilize a variety of coping mechanisms to manage and navigate difficult life events, including mental illness. Treatment of schizophrenia relies on adherence to medication. However, few correlates of medication adherence have been identified for individuals with schizophrenia. In United States Forty (40) individuals with schizophrenia were assessed regarding their coping styles and medication adherence practices. The study examined whether acceptance and denial coping strategies were associated with medication adherence in schizophrenia. After controlling for symptom severity, individuals who dealt with the stress of their illness by pretending that they are not ill or by ignoring the magnitude of their symptoms were, as expected, less adherent to their prescribed medication. This may be the case because patients who refuse to accept the fact that they are ill may not believe that their symptoms that can be managed, and thus, may be less motivated to

take steps to resolve their symptoms, such as taking medication. Further, if individuals refuse to believe that they are ill, they may be unlikely to believe that their psychotic experiences are symptoms of their illness, and that their strange experiences may be dealt with through medication or psychological intervention. It was suggested that targeting denial coping strategies in treatment may help foster more optimal strategies for managing schizophrenia (Aldebot, & Weisman de Mamani, 2009).

There is also evidence that patients with schizophrenia have higher than normal levels of emotional reactivity, arousability and trait anxiety (Docherty, St-Hilaire, Aarke & Seghers, 2009). Findings from this study showed that when schizophrenic patients experience stressful life events, they are more likely to have greater symptom increase or exacerbation and hence relapse than those with low in trait reactivity.

Chabungbam, Avasthi & Sharan (2007) found that patients with schizophrenia who experience a higher number of life events during the previous 6 months are more likely to relapse. These life events include number of psychotic episodes, unemployment, psychological stress and inappropriate treatment.

Other studies have shown that stress may be related to symptom severity in schizophrenia. Patients with schizophrenia expressed increased stress relating to their domestic environment, which was a result of interpersonal conflicts between patients and their parents, children, neighbors or extended family members (Betensky, Robinson, Gunduz-Bruce, Sevy, Lencz, Kane et al., 2008).

2.1.4 Substance use

Drug misuse is an important clinical problem associated with a poorer outcome in patients who have a diagnosis of schizophrenia. Seventeen people in Manchester, England with a diagnosis of schizophrenia and who had used street drugs were interviewed and asked to describe, in narrative form, their street drug use from their early experiences to the present day. Grounded theory was used to analyze the transcripts. The study identified five key reasons for street drug use in schizophrenia which were: 1/ As a identity-defining vocation, 2/ to belong to a peer group, 3/ due to feelings of hopelessness, 4/ due to beliefs about symptoms and how street drugs influence them and 5/ as an equivalent to taking psychotropic medication (Asher & Gask, 2010).

A study that was done by Turkington et al. (2009) in Northern Ireland found that there were higher relapse rates among schizophrenic participants who were persistently misusing substance (56.3%) than in those who had stopped misusing substances (32.9%). The most misused substance in the study was alcohol (33.0%)

followed by cannabis (20.7%).In a retrospective study, substance abuse during the early course of schizophrenia was observed to increase the severity of some psychotic symptoms such as hallucinations and unusual content of thought (Mauri, Volenteri, Gaspari, Colosanti, Brambilla & Cerruti, 2006).

A review of literature relevant to drug use and schizophrenia found that cannabis use can precipitate schizophrenia; it is also likely to exacerbate symptoms of the disorder. However, cannabis use may exacerbate symptoms of schizophrenia (even if it is not a precipitant of the disorder) by reducing compliance with treatment or by interfering with the effects of the neuroleptic drugs used to treat its symptoms (Hall & Degenhardt, 2000).

2.1.5 Expressed emotion (EE)

Expressed emotion has been used as a construct in understanding the interaction between patients and their carers and families. There are five components of EE: emotional over-involvement (exaggerated emotional response, excessive self sacrifice or devoted behavior and marked-over-protectiveness), critical comments, hostility, positive remarks and warmth (Bhurga & McKenzie, 2003). A considerable amount of data from United Kingdom, United States of America and Australia suggests that high expressed emotion can lead to relapse in vulnerable individuals, even when they are on medication (Bhurga & McKenzie, 2003).

Expressed emotion (EE) is an established factor in short term relapse in schizophrenia. A 7 years' follow up study was done with a population of 108 patients (93 with schizophrenia and 15 with schizoaffective disorder). Patient households were categorized by EE and its two components: criticism (CR) and emotional over-involvement (EOI). Results showed that low-CR families, irrespective of compliance status, are less often readmitted, whereas those with high-CR status are more often readmitted. Patients from high-CR households had a significantly higher number of psychiatric readmissions and longer cumulative length of stay at psychiatric hospitals than patients from low-CR households during the 7 years after the index hospitalization. Both compliance with pharmacotherapy and the interaction of high-CR plus poor compliance were additional contributors to time to first readmission (Marom, Munitz, Jones, Weizman & Hermesh, 2005).

A study in Israel investigated the validity of expressed emotion (EE). The study sample consisted of 108 patients with schizophrenia and 15 with schizoaffective disorder, and their key relatives Readmissions were determined over a 9-month period. High EE and particularly high criticism were significantly associated with poorer outcome and worse illness course. The findings showed that relapse and time to readmission and severity of symptoms at follow up all coincided and were all

associated with high-criticism environments (Marom, Munitz, Jones, Weizman & Hermesh, 2002).

Schizophrenic relapse has also been associated with high expressed emotion (EE) of influential others. Cutting et al. (2006) in their study found that the association between high EE influential others and patient relapse was because patients experienced high EE as stressful. In other words schizophrenic patients reported feeling more stresses when interacting with high EE influential others compared with low EE influential others. In addition, patients' emotional sensitivity to criticism was also found to increase their levels of stress and hence greater tendencies to relapse.

2.1.6 Psychological treatments

Family education on schizophrenia has been shown to improve knowledge and promote improvement in patient symptoms. In a randomized controlled trial in China, 101 people with schizophrenia and their families were educated about schizophrenia and followed up. Nine months after discharge the relapse rate of the experimental group (16%) was lower than that of the control group (37%) (Li & Arthur, 2005).

Another randomized controlled trial in England, Tarrier, Lewis, Haddock, Bentall, Drake, Kinderman, et al. (2004) after 18 months of follow up of patients with first episode and early schizophrenia found that, patients receiving either cognitive behavioural therapy (CBT) or supportive counseling in combination with the usual treatment had better symptom recovery. This the study found no significant reduction in relapse compared with those who received the usual treatment alone.

Relapse prevention is a major challenge in the care of patients with schizophrenia which has a more deteriorating course of mental illness. A better understanding of factors influencing relapse is needed. Such knowledge can help mental health care providers, to set priorities and make appropriate interventions to patients and their families in relapse prevention and mental health promotion after hospital discharge. Given the gap in knowledge, the objective of this study is to explore factors influencing relapse among patients with schizophrenia in Tanzania.

CHAPTER 3

3.1 Methodology

3.1.1 Design

The study used a qualitative descriptive design. This design was selected because it gave the researcher a chance to explore in depth, factors influencing relapse in patients with schizophrenia.

Respondents included patients with schizophrenia and their caregivers. The design enabled the researcher to capture and understand the participants' social world from these two different points of views on factors influencing relapse in patients with schizophrenia. The design sought meaning and understanding which was described in narrative form.

Qualitative design involves the systematic collection and analysis of subjective narrative materials using procedures in which there tends to be a minimum of researcher imposed control. The design attempts to understand the entirety of some phenomenon rather than focus on specific concepts (Polit & Hungler, 1995). The researcher explored the multiple realities as experienced by patients with schizophrenia and their care givers regarding factors influencing relapse in schizophrenia.

3.1.2 Setting

The United Republic of Tanzania is a country in East Africa with an area of 945,000km², bordered by Kenya and Uganda to the north, Rwanda, Burundi, and the Democratic Republic of the Congo to the west, and Zambia, Malawi and Mozambique to the south. It has a population of about 43 million (NBS, 2010). The country's eastern border lies on the Indian Ocean. The name Tanzania derives from the names of the two states Tanganyika and Zanzibar that united in 1964 to form the United Republic of Tanganyika and Zanzibar, which later was renamed the United Republic of Tanzania. The country is divided into 30 regions (State gazette new regions, 2012). There is one National mental health hospital (Mirembe Mental Hospital) and ten Regions with psychiatric units.

This study took place in Dar es Salaam, one of the regions with a psychiatric unit. The Region has three Districts namely Ilala, Kinondoni and Temeke. It has a population of about 3.1million people. The total surface area of Dar es Salaam Region is 1,397 square kilometers which is equivalent to 0.15% of the entire Tanzania Mainland area (Dar es Salaam Regional Commissioner's Office, 2010).

3.1.2.1 Site

This study took place at Muhimbili National Hospital (MNH) Psychiatric Department in the Out-patient Department. MNH is the national referral hospital and university teaching hospital situated in Ilala District in Dar es Salaam region. It is a 1,500 bed facility, attending 1,000 to 1,200 outpatients weekly. MNH has 2700 employees of which 300 are doctors and specialists, 900 registered & enrolled nurses and the rest are supporting operations employees. MNH has 25 departments and 106 units.

The MNH Psychiatric Unit provides services for clients coming from all over the country. It provides services to referral cases from the three districts in the region i.e. Ilala, Kinondoni and Temeke. The unit is divided into several departments including; Occupational Therapy, Social Work and Clinical Psychology. Services offered include; Inpatient and outpatient services, child and adolescent services, community services and Methadone Assisted Therapy (MAT) services. The inpatient consists of: an acute ward which is partitioned for both male and female acutely ill patients, general ward for both male and female patients whose conditions have stabilized and a private ward for patients who prefer private services. The unit has a capacity of 51 beds but currently there are 61 beds to cater for the increased number of inpatients. There are 11 beds in the acute ward (6 for males and 5 for females). The general ward has a total of 50 beds (25 for males and 25 for females). The private ward has 10 beds. The unit has a total of 50 nurses, 16 psychiatrists, 4 social workers, 1 community nurse, 4 occupational therapists and 3 clinical psychologists.

The Psychiatric Unit is divided into 4 firms: Ilala, Temeke, Kinondoni and Magomeni. Each firm deals with all psychiatric conditions with patients suffering from depression, mania, schizophrenia etc. Each firm is headed by a psychiatrist, psychologist and social worker. Each firm has its special clinic day for attending clients. The out-patient attendance per day is approximately 40-50 clients and the unit admits about 5 patients to the unit per day.

3.1.3 Population

The population consisted of out-patients with schizophrenia attended at the MNH Psychiatric Unit for follow up visits and their caregivers.

3.1.4 Sampling procedure

Sampling of participants to be enrolled in the study took place at MNH Psychiatric Out-patient Department. The mental health nurse in-charge of the Out-patient Department (OPD) of the psychiatric unit was informed about the aim and procedures of the study and asked to help in identifying participants for the in-depth interviews. Purposive sampling strategy was employed. In this case the researcher

deliberately chose the cases that could best contribute to the information needs of the study (Polit & Beck, 2010). Thus the researcher worked with out-patients with schizophrenia and their caregivers who had experienced relapse in schizophrenia.

With the help of OPD mental health nurse, participants were selected by going through files of patients with appointments that day, to identify those who would meet the criteria for inclusion in the study. Selection of care givers was done by identifying care givers who had escorted the identified patients to the Psychiatry Out-patient Department. Patients and caregivers who met the inclusion criteria were explained briefly the nature of the study before asked to participate. This was done before they were attended by a psychiatrist for their follow up visit. Those who agreed to participate were asked to provide their contacts such as phone numbers for subsequent booking of the appropriate day and venue for the interview. Participants who were ready to be interviewed on the same day, agreed to meet the researcher after having been attended by a psychiatrist. Patients who had come alone were asked to provide phone numbers for contacting their caregivers so as to book for the appropriate day and venue for the interview.

3.1.4.1 Inclusion criteria

Patient respondents

1. Diagnosis of schizophrenia according to DSM-IV criteria.
2. Age range between 19 and 65years
3. Previous history of ≥2 psychiatric hospitalization to a psychiatric hospital
4. Diagnosis of schizophrenia for more than 6 months

Care giver respondents

1. Caregivers must be the key caregivers
2. Caregivers should be more than 18years
3. Caregivers must have lived with the patient in the same household for more than 6 months

3.1.4.2 Exclusion criteria

Patient respondents

1. 1st episode schizophrenic patients
2. Schizophrenic patients with known organic mental disorders

Caregiver respondents

1. Caregivers with less than 18 years of age

3.1.5 Data collection

Eligible participants were given full explanation of the study, and the importance of the study. They were also informed of the data collection procedures which involved audio recording of information that they are going to give during the in-depth interviews (IDIs).

Demographic information was obtained from the 14 participants to describe the population. This process also helped build rapport between the participants and the researcher before the in-depth interviews. Interviews were conducted in one of the rooms at the Psychiatric Unit Out-patient Department. IDIs were conducted to obtain information about participants' perceptions on factors that influence relapse in schizophrenic patients. In these interviews, questions were asked about factors that assist the patient to cope with mental illness that could protect him/her from relapse, factors that make it difficult for the patient to cope with mental illness that could contribute to relapse and suggestions to mental health nurses in relapse reduction.

Interview questions were unstructured and designed to promote open ended responses. Interviews with participants were between 30 minutes and 45 minutes long. To obtain individual perceptions from participants, patients and their caregivers were interviewed separately, one after the other. Throughout the process of data collection patients were interviewed first, followed by their caregivers to avoid tiring them. Data was collected from participants until saturation was achieved. Saturation was reached when the information gathered by the researcher did not provide new insight or understanding (DePoy & Gitlin, 2005). Interviews were conducted in Swahili language and collected through a digital audio recorder (with the consent of participants).

3.1.6 Ethical considerations

Ethical clearance was granted by the ethical board of Muhimbili University of Health and Allied Sciences. Permission to conduct the study was obtained from the Executive Director of Muhimbili National Hospital (MNH), Director of Clinical Services MNH, and finally the head of department Psychiatric Unit.

Participants who agreed to participate in the study were requested to complete the written informed consent form, and arrangements for an interview with each potential participate were then made. Written informed consent was obtained and the participants were ensured of confidentiality, and freedom to withdraw at anytime during the study. To ensure confidentiality, code numbers were used for each participant instead of their names. One copy of the signed consent form remained with the researcher, and a second copy was given to the participant. Privacy was maintained at all times during the interviews.

3.1.7 Data analysis

Demographic information was analyzed descriptively and put into tables. Audio-recorded interviews were transcribed to text in computer files. They were later translated into English for report writing and publication. The researcher checked the accuracy of the transcribed data by listening to the recorded interviews and corrected minor mistakes. The interview transcripts were examined in totality, to obtain an overall sense of the content of the responses by the participants to various issues. Each transcript was read several times to enable the researcher to engage with the emerging data.

Swahili transcripts were used for analysis to maintain the originality of the data. This kept the researcher close to the data and also added credibility of the findings. Analysis of data followed the qualitative content analysis by using NVivo 9 computer assisted qualitative data analysis software. Transcribed data was first served in a word processing program i.e. Microsoft Word. Then the researcher imported the transcribed interview (sources) into the software for analysis.

Each source was then coded to gather material into themes or nodes (categories). As the data were presenting, some of the words or phrases appeared meaningful and these were highlighted and inserted into appropriate nodes. Memos were created throughout the analysis process as new insights and ideas emerged. The ideas could be recalled with ease as the memos describe each code or node.

Nodes were coded into sub-nodes to create a node hierarchy. Exploration of the data within NVivo was done to create graphs, and clusters. Cluster analysis is used to identify sources or nodes that contain similar concepts. In this study cluster analysis was done to explore nodes that were clustered with similar codes in relapse protective factors, potentiators of relapse and suggestions to reduce relapse (Figure 2).Cluster analysis was also done to identify sources that contained similar codes (Figure 3).

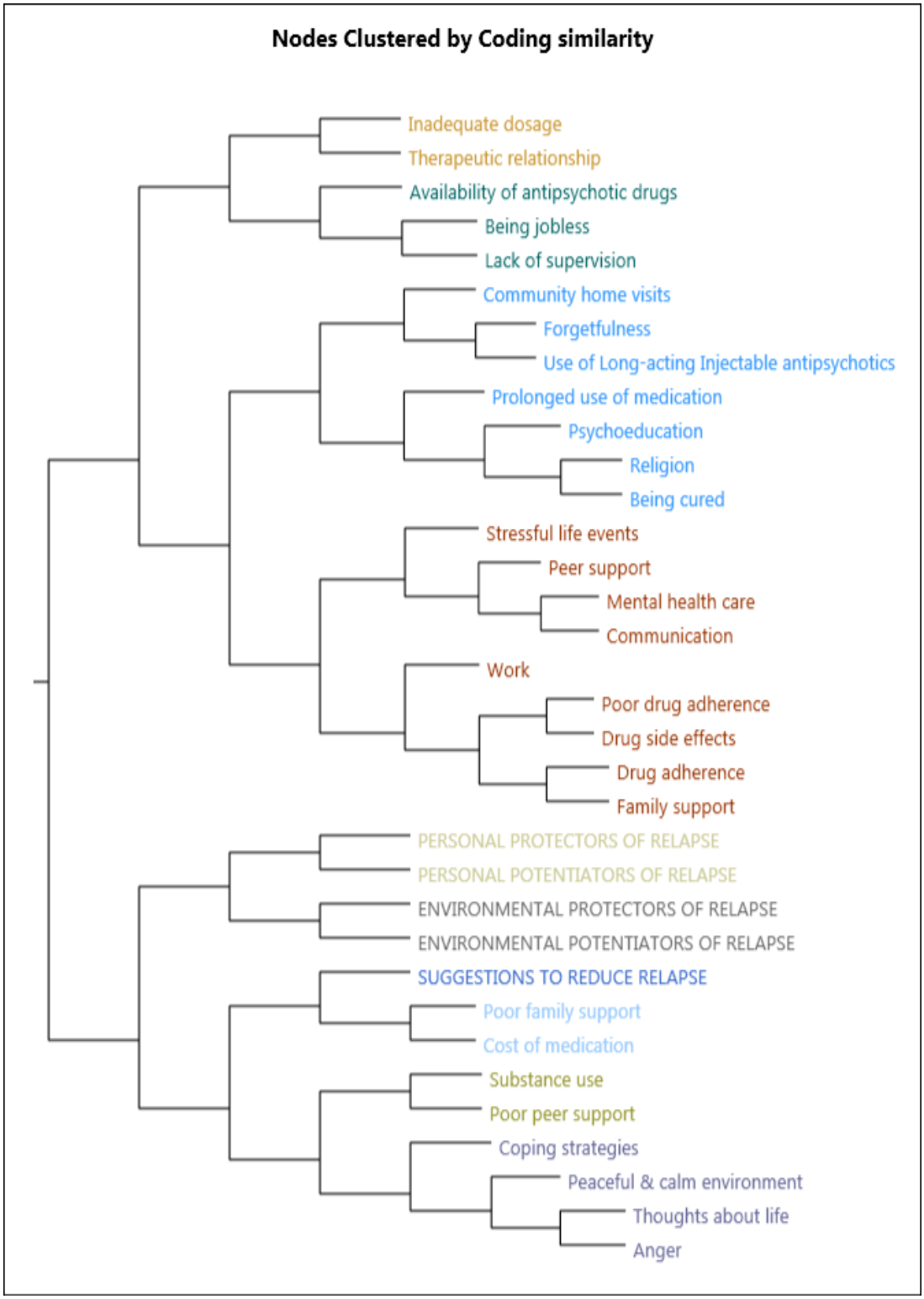

Figure 2 Respondents' nodes clustered by coding similarity.

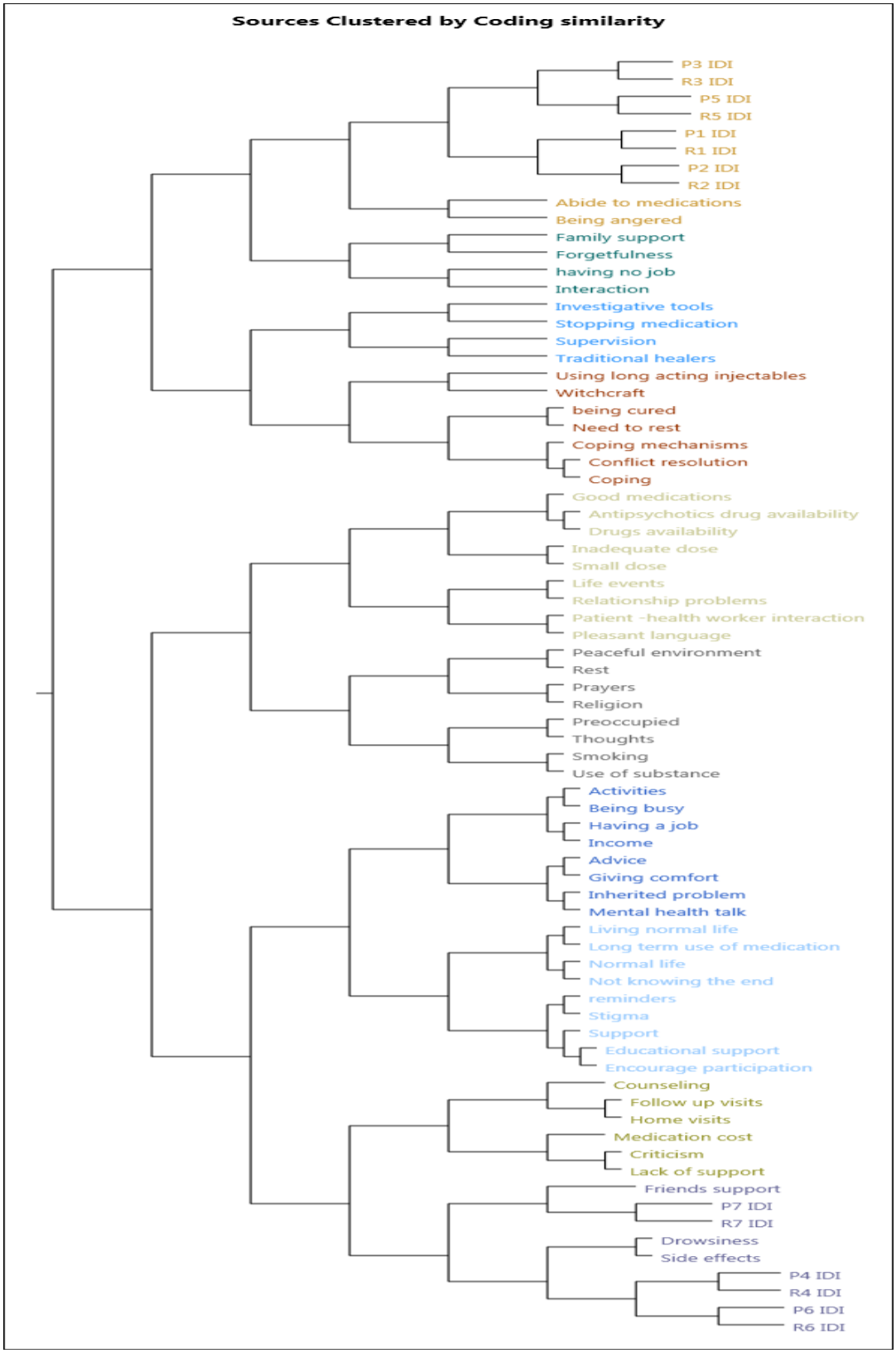

Figure 3 Respondents' interviews (sources) clustered by coding similarity.

Above figure; the coding of pairs (caregiver-patient) was very similar with minor dissonance within pairs. Congruent words were used to make sure that the similarities are not related to coding, but related to the information that participants were giving to the researcher.

3.1.8 Trustworthiness

In describing trustworthiness the concepts of credibility, dependability and transferability have been used (Graneheim & Lundman, 2004). Credibility describes how well data and process of analysis addresses the intended focus (Graneheim & Lundman, 2004). Credibility in this study was covered in various ways:

1. Purposive sampling ensured the deliberate selection of participants with various experiences on relapse in schizophrenia which shaded light on the research question;

2. Collection of data using IDIs until data saturation was achieved provided deeper information about the phenomenon under study; data triangulation was used during data collection. This involved the use of multiple data sources in a study (Polit & Hungler, 1995), which was achieved by going through patients' files, interviewing schizophrenic patients and their care givers about the same topic. Member checking was done throughout the data collection process to confirm the truth value or accuracy of the investigator's interpretations as they emerged (DePoy & Gitling, 2005).

3. Selection of the most suitable codes and proper coverage of data by creating nodes, categories, and themes was also ensured.

Dependability relates to the degree to which data change over time (Graneheim & Lundman, 2004). To ensure this the researcher used an interview guide to ensure consistency during data collection and questioned the same areas for all participants. Questions were re-phrased and modified as the researcher continued to collect data, to make sure that participants understood the information they were required to give.

Transferability refers to the extent to which findings can be transferred to other settings or groups (Graneheim & Lundman, 2004). Proper selection of participants, data collection and process of analysis plus appropriate quotations will allow readers to judge transferability of the findings.

3.1.9 Dissemination of the findings

Results of this research will be disseminated to participants, MNH Psychiatric Unit for implementation, Muhimbili University of Health and Allied Sciences (MUHAS) for educational purposes, MUHAS Library and the Ministry of Health and Social Welfare (MOHSW) for policy making and publications. The findings from this

study will be presented in conferences and also published in a peer-review nursing journal.

CHAPTER 4

4.1 Findings

Fourteen (14) participants, seven (7) patients (3 women and 4 men) with schizophrenia and their seven (7) caregivers (4 women and 3 men) were recruited with an age range of 25 to 79 years. Characteristics of participants are summarized in Table 2.

Table 2 Characteristics of Respondents.

Participants	Age	Sex	Education level	Occupation	Marital status	Relationship with each other	Medications	Relapse episodes
PI	36	M	Form IV	College student	Single	Son	Modicate inj 25mg 1/12	>5 times
R1	69	F	Standard VIII	Retired nurse midwife	Widow	Mother		>5 times
P2	40	M	Form IV	Nursery school teacher	Divorced	Elder brother	Chlopromazine tabs 100mg nocte	>5 times
R2	37	M	Diploma	Primary school teacher	Married	Younger brother		>5 times
P3	55	F	Standard VII	Peasant	Married	Sister in-law	Haloperidol tabs 1.5mg OD	3 times
R3	45	F	Form IV	Business woman	Married	Sister in-law		3 times
P4	30	F	Standard VI	None	Divorced	Daughter	Haloperidol tabs 1.5mg Am & 3mg nocte, Artane 5mg OD	Many times
R4	79	M	Standard V	Retired	Widower	Father		Many times
P5	56	F	Standard III	Business woman	Married	Wife	Haloperidol tabs 3mg BID	Many times
R5	67	M	Standard IV	Mechanic	Married	Husband		Many times
P6	25	M	Standard VI dropout	Potato peeler	Single	Son	Olanzepine 10mg OD	3 times
R6	45	F	Standard VII	Food vendor	Divorced	Mother		3 times
P7	27	M	Form IV	Business man	Single	Younger brother	Haloperidol tabs 1.5mg OD	2 times
R7	31	F	Form IV	Business woman	Married	Sister		2 times

Note: “P” stands for patient and “R” stands for caregivers.

The analysis of interviews with patients and their caregivers revealed two themes and four main nodes (categories) (as shown in Figure 4). Expressions in Swahili are given in parentheses and code numbers are used in the quotes.

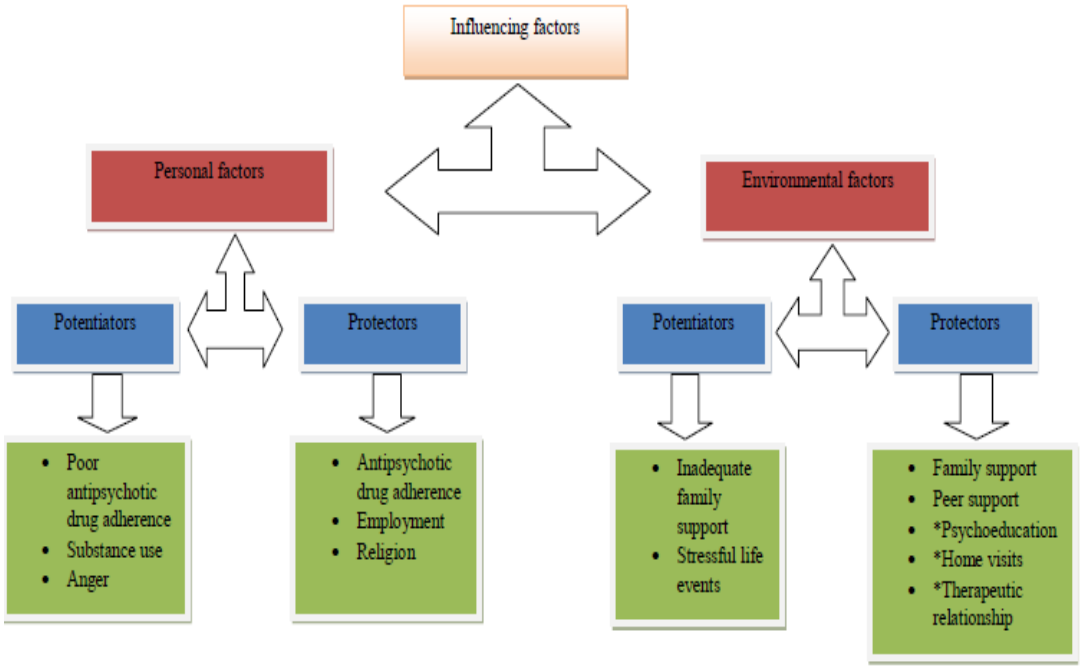

Figure 4 Main nodes (categories) and subcategories of the influencing factors of relapse identified in this study.

Note: *Suggestions made by participants to reduce relapse

Several graphs which follow show how participants responded during the interview. Poor antipsychotic drug adherence is illustrated in Figure 5; Figure 6 illustrates drug side effects; Figure 7 illustrates stopping medication because of the belief of being cured; Figure 8 illustrates antipsychotic drug adherence; Figure 9 illustrates religion; Figure 10 illustrates good family support; Figure 11 illustrates psychoeducation and good therapeutic relationship is illustrated in Figure 12. These graphs were created to show how nodes were connected with participant interviews and memos created during data analysis. “R” stands for caregivers and “P” stands for patients.

4.1.1 Personal potentiators of relapse

These are factors within the individual that increases the likely hood of one to experience relapse. Several individual factors were found from participants’ views that make people with schizophrenia vulnerable to relapse. These factors tend to contribute to a return of psychotic symptoms.

4.1.1.1 Poor antipsychotic drug adherence

One of the main factors described by patients to have caused a number of relapses was their poor adherence to antipsychotic medications as shown in Figure 5.

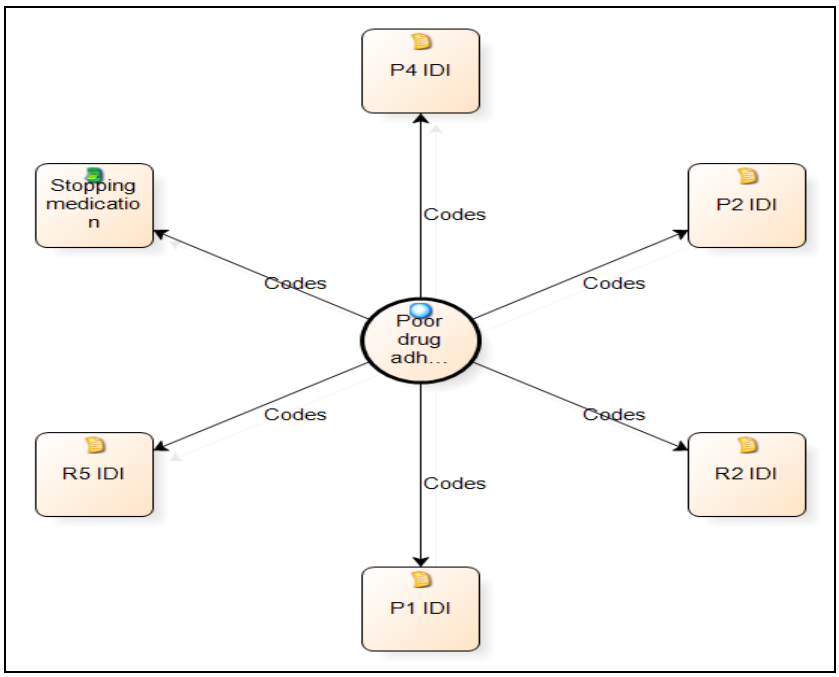

Figure 5 Responses of participants at MNH Psychiatric Department about poor antipsychotic drug adherence.

Several patients stated that the reason they sometimes do not take their medication is because of the drug side effects (Figure 6). Patients expressed their concerns about how drug side effects trouble them and disturb their normal lives.

At times they have to stop taking these drugs so that they can be freed from these disturbing side effects.

> *After using medicate I become completely calm and I go to school…. And I do everything but they have only one problem it is about senses, I usually lose all my senses to the extent that I cannot have sex with any woman. At times yes I do stop taking medication, but for example there are times when you cannot stop taking this injection because they bring you here. (P1)*

A male patient, 40 years of age, experiencing muscular rigidity added:

> *"Another problem is that I have used these medications for a very longtime to the extent that they no longer work anymore; they just harm me….. I have*

problems with my legs I can say…. They are numb I mean nowadays they tighten… Yes they become rigid, now this problem even walking is difficult……" (P2)

A female patient, aged 56 years, complained:

"Now these haloperidol taken alone, at times my hands become rigid (inakakamaa) you go to wash dishes, hands become like this (rigid). They become like this or leg nerves can contract (inavuta) at other times I can't even do any work." (P5)

Caregivers also expressed their concern about the side effects of the antipsychotics to their patients. A male caregiver aged 37 years (patient's brother) said:

"Many times he has been saying that "I have a numbness problem" Because what I know is that it is due to this problem and this numbness or these are the drug side effects in general." (R2)

Another 45 years old female care giver (patient's sister in-law), reflected:

"Ok, ok there was a time they were tiring her…. That first time for sure it reached a time, because we took medicine monthly, we realized a month and a half has passed she has not said the drugs are finished." (R3)

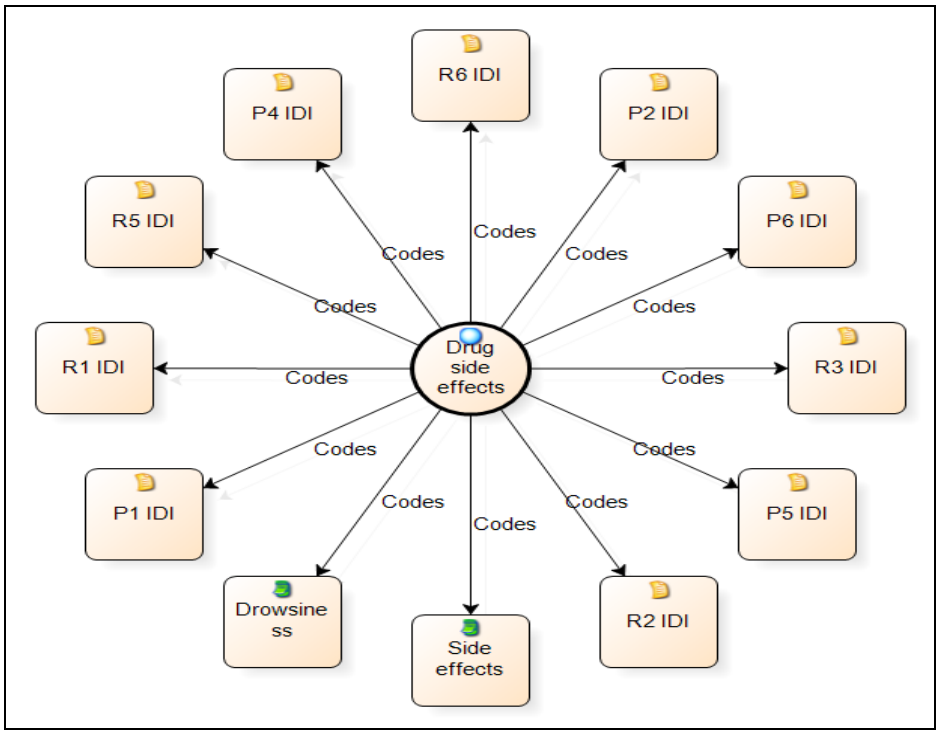

Figure 6 Responses of participants at MNH Psychiatric Department about antipsychotic drug side effects.

A female patient aged 56 years, declared that she uses tobacco snuff (ugoro) so as to alleviate the side effects of medication that she was taking. She insisted that the medicine is like alcohol and when she takes them she feels drunk, hence to alleviate that feeling she then has to take "ugoro". She also added that this "ugoro" activates her mind.

> *I take this snuff these medications are intoxicating, I become as if I have taken alcohol. These snuff for example, if you are thinking; when you take this snuff thoughts become organized. (P5)*

It was also expressed by several patients and some of the caregivers that at times patients forget to take their medications. That is why there is a recurrence of psychotic symptoms. A 36 year old, male patient said:

> *"For example when I take medication, I myself mmh it reaches a point I see if I completely stop using medication can't I live like other people? You find that I have forgotten or if somebody insists that I take my medication, aah… I just don't take them, until this problem recurs." (P1)*

Another male patient, aged 27 years, reflected:

> *"I mean it happens that may be I forget, things like that, but it is not saying may be you have a rest because a human being can forget." (P7)*

A 67 years old male care giver (patient's husband) said:

> *"Enhee, there was a time when she used not to take medication, even here you knew, if you read her file there was a time she used to avoid taking her medication." (R5)*

Patients expressed that they stopped taking their medication after seeing that they are cured (as shown in Figure 7). This was supported by the fact that they no longer experienced the disease symptoms they had experienced before. This belief led to relapse.

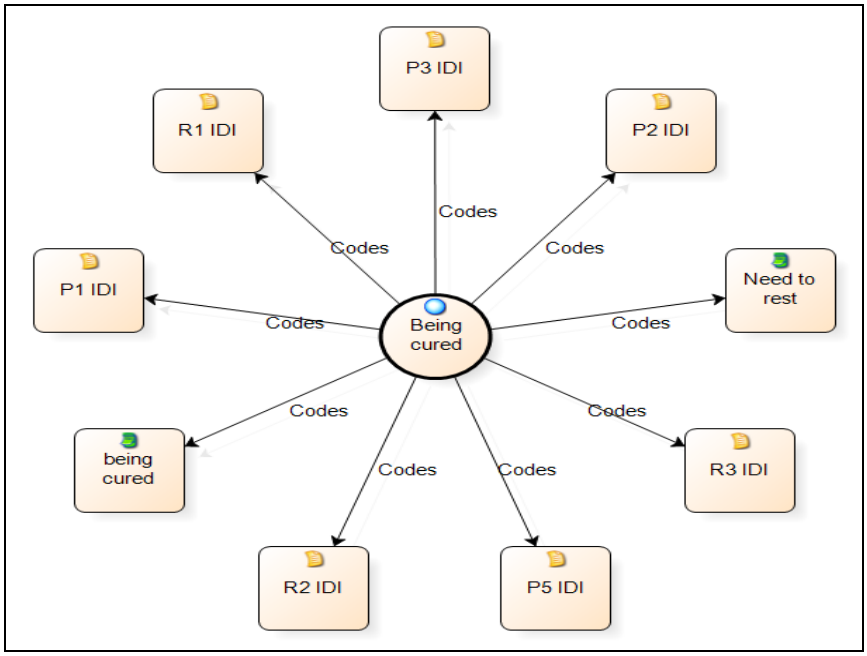

Figure 7 Responses of participants at MNH Psychiatric Department about stopping medication due to the belief of being cured.

> *Even my care takers did not emphasize that I should continue with medication the whole period. After I had received the initial treatment... They saw that I am cured so they cared for me just like a patient with other diseases which do not require continuous medication. (P1)*

A 55 year old, female patient, claimed:

> *"Yes, I used medication but when I felt that I was cured I stopped…. I was coming to the clinic but when I felt cured I stopped attending, I felt I was cured." (P3)*

A 69 year old, mother of a patient also expressed the same concern. When they saw that the patient had no disease symptoms, they believed he was cured from the mental illness. Hence they did not bother to put more emphasis on the medication, thus the patient relapsed.

> *He had forgotten to take his medication like it has been directed and we thought that he has been cured. When he stayed without injection without tabs he again relapsed. (R1)*

A patient's mother, aged 45 years, expressed her concern about how atypical antipsychotics are expensive. Hence due to poor social economic status and lack of support from other relatives at times the patient is compelled to go without

medications because the mother alone cannot afford to buy the medication. In turn this causes the patient to experience recurrence of disease symptoms because of missing the dose for a couple of months.

> *Yes they changed to other drugs, now we have to buy, because of the cost when the drugs were finished; he did not have his medicine for a period of two months. He relapsed again….Mmh, he missed his medicine so the condition recurred because the financial situation was difficult. (R6)*

A 30 year old female patient also claimed that at times she stops taking medication because there is nobody to supervise them, despite the fact that she has been told about how to take the medication the time and dosage.

> *I do not know why it was at that time father was at work. There was nobody to supervise me. (P4)*

A patient's husband, aged 56 years old, claimed that when patients are not closely monitored by their significant others they tend not to adhere to their treatment regimen.

> *Enhee, there was a time when she used not to take medication …. There was a time I was not with her, you see, but ever since I have been with her, I force her and she takes her medicine often. If it is the injectable I force that we come if it is tabs take them as you are supposed to, there is no problem. (R5)*

One male patient, aged 36 years, expressed that one of the reasons for stopping medication was because they have a great need to live normal lives just like other people in the society. They tend to explore the possibility of living without taking medications.

> *I myself, mmh, it reaches a point I see if I completely stop using medication can't I live like other people.... Yes what will happen, or if I live like other people may be if I don't use medication can I proceed as usual? (P1)*

Another male patient, aged 40 years, added that he feels more active when he is off medication and it makes him feel like the way he felt before he became mentally ill.

> *You find that when you don't use you find as if you are kind of active, I mean you go back to your previous condition I mean when you do not use that medication, you decide to stop taking them. (P2)*

The patient's brother added that long term use of antipsychotic medication is a huge burden to his patient because it makes him tired and hence he at times stops taking

his medication which in turn leads to relapse. He added that drug side effects makes the patient tired and think about his mental problem of which it is not known when the problem will be solved.

> *I know that another thing that contributes; it is an act which has an unknown end, so as a human being he feels tired, he is hurt (R2)*

4.1.1.2 Substance use

Smoking "cigarettes" (bhangi, local name for cannabis) was identified to be a precipitator of relapse by a 25 year old male patient. The patient went on saying that the main cause of such relapses is smoking *sigara kubwa* (the big cigarette, another local name for cannabis).

> *The problem of smoking big cigarettes… The big issue is those cigarettes or big cigarettes they usually say, I don't know what cigarettes (P6)*

4.1.1.3 Anger

Patients and caregivers expressed that sometimes when patients are angered by other people it precipitates the recurrence of their disease symptoms, which in turn leads to relapse. A 56 year old female patient said:

> *"Thoughts, anger or when somebody gives you an unpleasant reply you become angry….For example I do not want for example when somebody answers you rudely…I get angry or when somebody scolds me I get angry. In old times when he scolded me I used to carry it in my head, I got confused (nachanganyikiwa)." (P5)*

A patient's sister aged 31 years, reflected:

> *"Eeh, when he got angry. Whenever he was furious; that condition used to recur." (R7)*

One female patient, aged 56 years, claimed that one of the reasons as to why she experiences relapse is when she thinks about life; such as thinking about things she has not accomplished in life, things she wants to accomplish and the obstacles towards reaching those goals and how she is going to achieve those goals and dreams.

> *You may find I want to do my things……. you may find that you have not even built a hut (kibanda), you think what should I do so that I can get my hut, you can think ….I want my children to be like this or I want my husband to be like this... (P5)*

The patient's husband added as to why his wife experiences frequent relapse episodes. He explained that she compares herself with others in terms of achievement. When she fails to achieve what others have, she becomes disappointed. Since she cannot cope with such disappointments in life her disease symptoms recur.

> *For this one, her problem was about thinking about things which she is not certain to get….Now when she does not get them, those disturbances that disturb her head cause her confusion (anachanganyikiwa)….. Eeeh, she thinks about things how come I am not like so and so? Why can't I be like so and so, why don't I be like this? (R5).*

4.1.2 Personal protectors of relapse

Protective factors of relapse were other findings viewed by participants from this study. These are individual factors that make it less likely that relapse will emerge. The presence of such factors in a person with schizophrenia was found to reduce the risk of relapse in such individuals.

4.1.2.1 Antipsychotic drug adherence

Patients and caregivers described the importance of adhering to antipsychotic medications (as shown in Figure 8); that when patients adhere to the treatment regime they lead normal lives, are free from relapses and they feel much better.

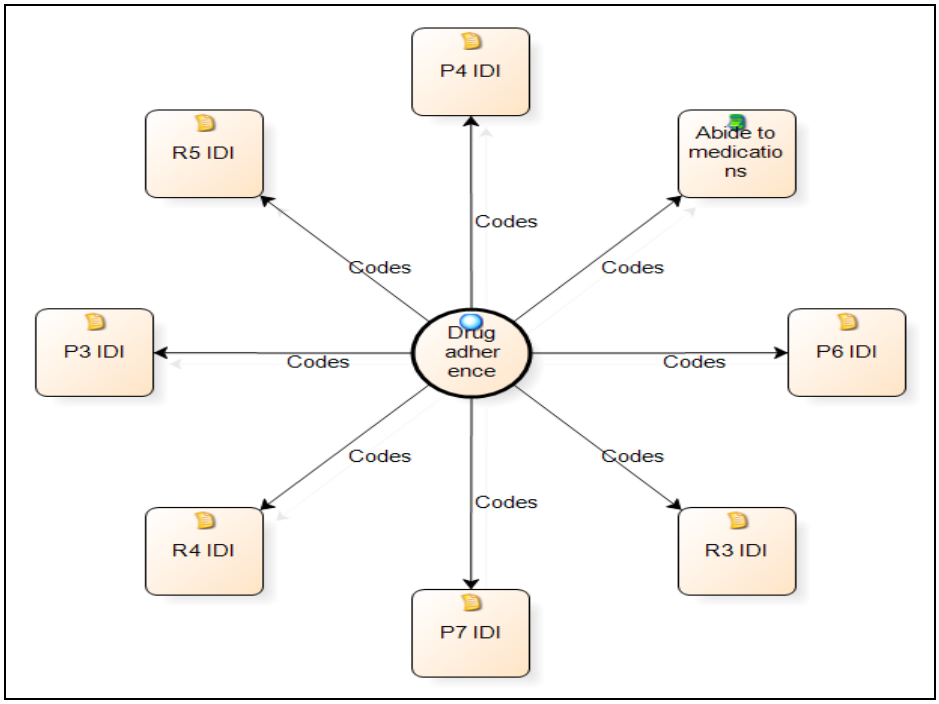

Figure 8 Responses of participants at MNH Psychiatric Department about antipsychotic drug adherence.

> *It is the medication only. I see I should not stop until the doctor tells me that now it is enough then I will stop. (P4)*

The patient's father added:

> *"Because this western one (ya kizungu) if she is given, if she adheres to the instructions, these problems come to an end." (R4)*

A patient's husband reflected:

> *"She uses medication well, she has no problems, she uses well, and when she uses medication is when her condition keeps getting well…It is these medications, if she follows instructions of these medications she has no problems." (R5)*

Patients and their caregivers also expressed that the use of long acting injectables especially Modicate (Fluphenazine decanoate) helps to alleviate psychotic symptoms. These types of drugs also make it easy for them to adhere to the treatment regimen than the oral antipsychotics. The use of long acting injectables enabled them to participate in their everyday activities at school and at home.

Frankly when I have reached a confusion state, but after I have been injected, All the things I had done before come to an end. I truthfully go to school, I learn and come back home. I participate in several activities. (P1)

The patient's mother supported this by saying:

"When we use Modicate for one year we cannot come to the hospital due to disease symptoms." (R1)

4.1.2.2 Religion

Patients stated that their religion helps them with their condition (as shown in Figure 9). Being involved in religious activities like involving oneself in church choir was said to help patients feel like other people who do not have the illness. A 36 years old male patient said:

"That helps for example I am a Catholic and being a Catholic I was once involved in the church choir. Therefore when I go for the choir I interact with my fellow choir singers, it usually helps me to be active, and you find yourself ok just like other people." (P1)

Another male patient aged 40 years added:

"For sure it is because I am a very religious person, therefore later I take my religion books I read or I take and read my college books; I mean it builds a habit of perseverance." (P2)

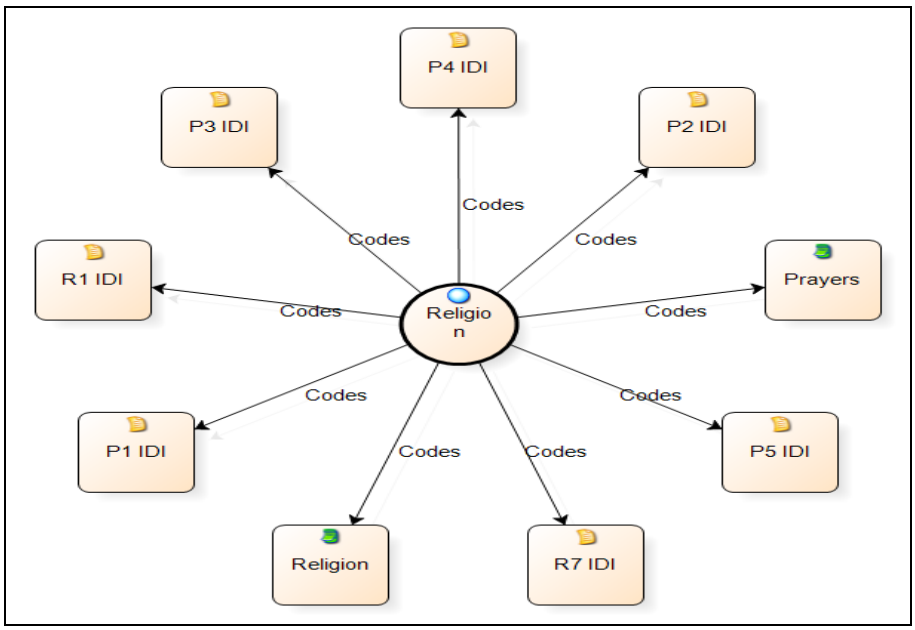

Figure 9 Responses of participants at MNH Psychiatric Department about religion.

Caregivers expressed that religious faith and involvement in prayers helps their mentally ill patients to get better and to even enable them pursue their life time goals like education and other day to day activities. One female care giver (patient's sister) claimed:

> *"The issue of religion I see that it helps because there are some religious men who read for him "Dua", that apart from medications but also the Almighty God must be present, therefore they usually read "Dua" for him." (R7)*

A 69 year old mother of a patient said:

> *"I gave him the Holy Rosary I taught him the prayers we use, the prayers for healing. We have Charismatics in the Roman Catholics they pray. I use such things as I can see he has studied up to this step, I am grateful." (R1).*

4.1.2.3 Employment

Caregivers claimed that when their patients engage themselves in different activities to earn a living they feel free to spend their income because they do not have to ask others for financial support. This also boosts their self esteem and makes them independent

It also gives them the ability to support their families and it keeps them busy. A patient's husband expressed:

> *"Ever since her youth she is not somebody who would sit and wait to be served, she is a person who works.....it also helps me. The day I don't have I tell her lend me ten, twenty, give me 100,000, let us pay for our child I will refund, that is what we do. When she does her work she feels free." (R5)*

This was supported by another female caregiver (patient's sister in-law) aged 37 years, who said:

> *"She is a peasant...It helps because firstly it keeps her busy .... And she does not have the time for just sitting and thinking." (R3)*

A 25 year old male patient expressed that their work helps them to earn a small amount of money which they use to buy medicine at times when such drugs are not available at the pharmacy.

> *There is help like that the day when I do not get medicine; I can get/buy medicine. (P6)*

A male patient declared that when he is busy doing different things it helps his condition to get better and thus prevent recurrence of disease symptoms. This enables him to lead a normal live just like other people.

> *You can do what, go for the choir for example, I have to go for rehearsals weekly, you might be going thrice or twice…. You know when you keep yourself busy your will see that your heart is at peace. (P1)*

4.1.3 Environmental potentiators of relapse

Several factors in the environment of people with schizophrenia were also viewed to have negative effects on patients' recovery. Such factors in the environment trigger for the return of psychotic symptoms.

4.1.3.1 Inadequate family support

Patients have complained that some of their care takers criticize them in many ways; they get critical comments such as being lazy inspite of their mental condition. Others gossip about them and laugh at them. Patients expressed that they do not like such reactions from their caregivers; sometimes they thus avoid such situations by staying away from their home. A 40 years old male patient claimed:

> *"You know they talk a lot about me, I live with my uncle he is the one taking care of me. He tells me, "You are very lazy"….Apart from that I live with him but in addition to that they are against me (wananipiga vita), they gossip about me (wananisengenya)..... I just don't understand….When I stay at home they laugh, gossip. You see? Things like those I do not like." (P2)*

The same patient also complained about the fact that his uncle refuses to escort him to the hospital for follow up visits or when he does not feel well.

> *……I followed him five times, I told him uncle "I am sick, I am very sick and I cannot get in a bus, it is very far from Mbagala to Muhimbili. I cannot on my own, I need somebody for example to hold my hand because to stand in a bus is very difficult, so now I am asking you to help me and take to the hospital," but he refused just like that. (P2)*

One female caregiver (patient's mother) expressed her concern about how other antipsychotics are expensive. Hence due to her poor social economic status and lack of support from other relatives at times the patient is compelled to go without. In turn this causes the patient to experience recurrence of disease symptoms because of missing the dose for a couple of months. She complained:

> *"Mmh, it is like this, about income when it is hard to find things…. Because his father is already dead and his relatives on his father's side (upande wa*

kiumeni) nobody does anything to help him." (She cried silently while wiping off her tears)." (R6)

4.1.3.2 Stressful life events

One patient and her caregiver declared that the patient had experienced a number of relapses that were manifested by recurrence of symptoms after having a miscarriage and also after losing her new born baby during birth.

> *The first time I was pregnant and I got a miscarriage at three months, I started to get confused (nilivurugikiwa)……. After the miscarriage then I found as if I was confused mentally and I saw as if the earth was changing…….I became fine but then I got pregnant again, I was brought to Muhimbili, I gave birth but it was again bad luck (bahati mbaya), Again I was mentally confused. (P3)*

The caregiver (patient's sister in-law) confirmed this by saying:

> *"When she gives birth or like that when she has a miscarriage the issue of confusion recurs again." (R3)*

One caregiver (patient's father) was also concerned about the men who sought intimate friendship with his mentally ill daughter, that at times they take advantage of her and later on abandon her. This hurts the patient because she also has feelings. It becomes too stressful for her and hence she experiences relapse.

> *And I am the one (father) who struggles alone. How am I going to tell her? I am the one in trouble because he (the man) has already confused her (kashamchanganya) because of her illness. (R4)*

4.1.4 Environmental protectors of relapse

Environmental protectors of relapse are factors within individuals' surroundings that tend to make it less likely that relapse will emerge. Participants gave different views on factors in the environment that tend to protect people with schizophrenia from relapse.

4.1.4.1 Family support

All patients expressed the presence of great support and love from family, neighbors and the community (as shown in Figure 10). They added that they are not stigmatized in any way due to their mental condition by the family, neighbors or community surrounding them. A 36 year old male patient declared:

"On my family's side for example, honestly they all care for me so much. They don't like to see me reach a state of confusion. That is why they bring me when they see changes have reached that state; they do not delay." (P1)

This was supported by a female patient aged 55 years old.

Ah! My relatives help me so much. Firstly those relatives are the ones who saved me, because I did not know myself, what I should do, I was just a person suffering….They have a lot of love, they do not know how to stigmatize (kunyanyapaa) a patient. I mean about them from my sisters in-law, my relatives or neighbors they have great love. (P3)

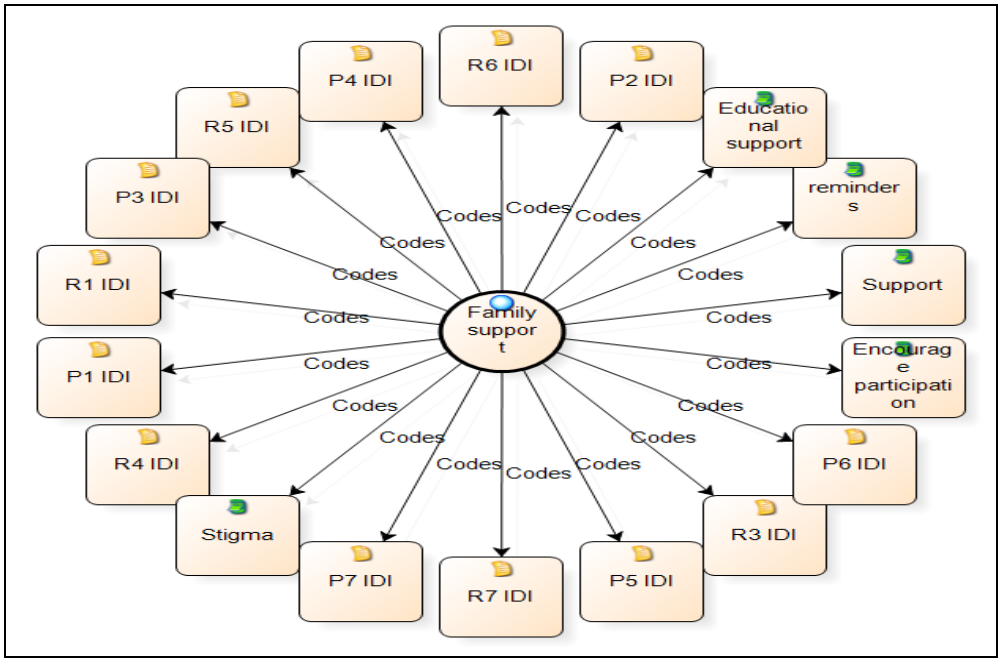

Figure 10 Responses of participants at MNH Psychiatric Department about good family support.

Caregivers play a big part in making sure that they take patients to the hospital whenever there is a sign of disease symptoms. They also encourage their patients to take medications at the required time, and urge friends not to involve the patient in inappropriate activities. This helps patients avoid stopping taking their medicine and thus prevents relapse.

Her relatives really support her, like when she gets confused, (akishachanganyikiwa) then you know everybody will be contacted Hey! Sister here she is confused then. This one will come from here; the other one there; they will meet; she will be taken to the hospital. (R4)

Another caregiver added by saying:

> *"Therefore many times I insist that he takes his medicine before going to bed and in the morning….I insist to his friends about issues, like they should not involve him in the smoking of anything, use of drugs or anything, I usually emphasize that." (R6)*

Caregivers urged that patients should be allowed to take part in different activities in the clan or family. Relatives emphasized that patients' opinions should be listened to and respected.

> *Even in clan gatherings she should be included, do not discriminate against her, when you discriminate against her you give her thoughts already….Do not discriminate her in any way whatever you want to do to these patients let them participate. (R5)*

Other patients claimed that a peaceful and calm environment makes their condition better, and helps them to maintain a good mental condition which protects them from recurrence of symptoms. They also expressed that having a nap after their daily activities is important in their mental condition because it helps them rest their bodies and mind.

> *Usually it's a calm condition that helps to keep me well, from things of going here and there; you stay at home and help with small chores. (P1)*

Another female patient said:

> *"I like after I have done my activities or for example after I have finished cooking I want to rest in the afternoon, to rest my head, my thoughts."…. (P5)*

The patient's husband added:

> *"She does not want disturbances, her head does not want to be disturbed, and when there is nobody to push her around, to disturb her, and she has no problem with anyone." (R5)*

Several patients expressed that they interact well with others in their families and community. One of them said:

> *"Interaction with my neighbors and my children is good, my neighbors we talk well, I go to them I cook, we laugh, at other times when I reach there I*

say we have reached here, let us pray to God, let us read the word of God." (P5)

Most caregivers also reported that patients interact well with others in the family, neighborhood and community and others do the same. One female care giver (patient's sister in law) added that the opinions her patient gives are respected and listened to because she is part of the family and she has a right just like others in the family. This makes the patient feel important and respected by others despite her mental illness.

Communication is good, the opinion she gives, will be worked upon, I mean she is already in the society, she is in the family. (R3)

4.1.4.2 Peer support

Peer support was shown to play a big part in keeping the patient better and also in protecting the patient from relapse. One patient declared that her friends try their best not to make her angry because they know about her condition.

I have friends, they comfort me. I have neighbors they play with me, when I get sick I mean when I got sick like this, they came so many, and they were sorry. (P5)

A female caregiver (patient's sister) said:

"I see that they help him because they also have not discriminated against him…..When he is with them outside they talk like they used to previously. It is not that may be they have discriminated against him, "Because he got this problem so let us stay away from him". No. They are close to him." (R7)

4.1.4.3 Mental health services

A patient and her care giver expressed that mental health services that they receive help them a lot. If those services were unavailable the condition of the patient would not have improved. They added that the mental health education sessions conducted by mental health nurses every day help them a lot.

Yes these services help me. ….. I find that my condition is normal as it was before the illness. (P3)

Mental services help a lot. From when we receive mental health education up to when they provide us with medication. (R3)

Eeh they help. Like the morning mental health sessions before seeing the doctor, they widen knowledge a bit. Other words or other things you do not

talk to the doctor about. There(at the sessions) you exchange ideas, you understand. It helps. (P7)

4.1.5 Suggestions to reduce relapse

Several suggestions were made by participants to reduce relapse. The main suggestion was the improvement of mental health services with much emphasis on community home visits, strengthening of provider-patient therapeutic relationship, and psychoeducation.

4.1.5.1 Mental health services

Patients suggested that substantial recovery will occur and relapses could be prevented if mental health nurses followed them to their homes to know the progress of their illness and also to get clear information about the condition of the patient and identify the cause of their illnesses and monitor the course of the illness. One patient said:

"For example I think I would suggest that they should make follow up at our homes because the issue of waiting here brings ambiguity (utata) because the patient says this and the care givers say that. Therefore it is difficult for one to know what to follow: caregivers or patients." (P1)

The patient's mother added:

"If you (mental health nurses) can come that would be very good, you will give him talks, how have you been since the other day, how do you feel, are there changes, he can then explain, I welcome you." (R1)

A 37 year old male caregiver (patient's brother) suggested that mental health nurses should educate families with mentally ill patients on the risk factors to mental illness. This will help prevent occurrence of such symptoms to other family members.

I mean you should sacrifice your time in talking to the people concerned especially in this. When it is known that this problem has been inherited then those in the family should be called. So they can be told that this problem is in the clan it can happen to anyone. (R2)

Caregivers urged that mental health nurses should try their best to get enough time and talk to the patients and care givers (as shown in Figure 11). They also suggested that at times it would be beneficial to communicate with them through cell phones; that way they could urge them to come or to set appointments for such talks for the betterment of the patient's condition.

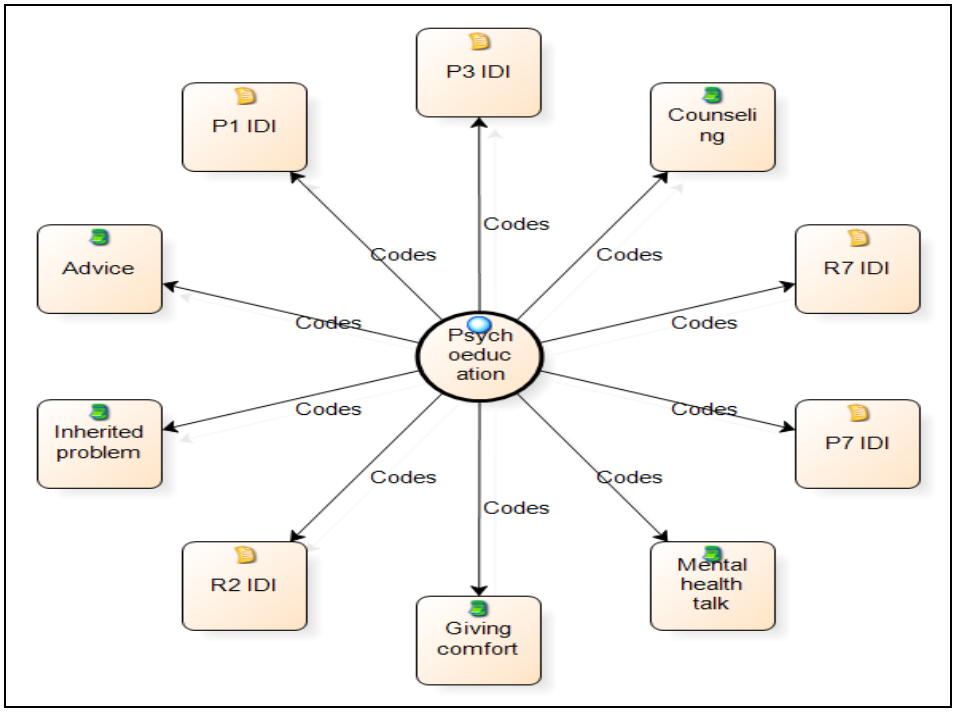

Figure 11 Responses of participants at MNH Psychiatric Department about psychoeducation.

A 36 year old patient suggested that; apart from medication, they would also benefit from mental health counseling. This would help them to know what things to do so as to improve their condition and what things to avoid.

> *I told them that to get rid of this illness…., I don't have to use only medications. If I would at least be counseled, it would help me. For example in that condition when it reaches a point where I have to be brought here for an injection, I am usually not advised. (P1)*

> *What I would like to be done is to get time for receiving mental health counseling because it helps for example the state I am in. (P1)*

A 45 year old female caregiver (patient's sister in-law) urged that the time the patients spend with a psychiatrist when they come for follow up is very short. It does not allow the mental health provider to talk and listen to the patient's concerns and needs (as shown in Figure 12). The physicians or psychiatrists should spend enough time with patients to get to know their mental conditions.

> *….Of which if you talk with the patient like this you get to know the patient rather than when the patient arrives; you take the card, you write eeeh how you have been! I am fine, you write tatatata.....come at a certain date…. But when you talk to her I think you can know the patient's condition. (R3)*

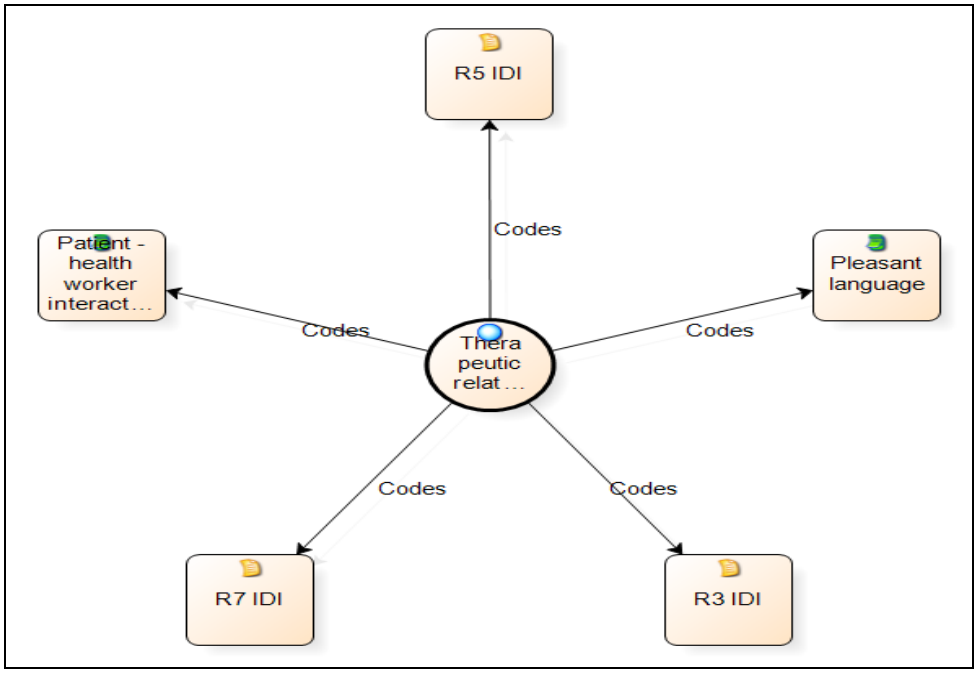

Figure 12 Responses of participants at MNH Psychiatric Department about good therapeutic relationship.

A patient's sister (31 years old female caregiver) recommended that all mental health workers should try their best to use pleasant language when interacting with clients when they come to seek mental health care because the language itself is therapeutic to the patient.

> *I am asking you to educate each other that when you take care of somebody a pleasant language is preferred even before you provide medication to that person, your language only…., I think he will have gotten a certain treatment (R7)*

A 45 year old female caregiver (patient's mother) recommended that the unit should try its best to make sure that they have all the antipsychotic drugs. At times they do not get free drugs from the pharmacy especially atypical antipsychotics, hence they have to buy. This is often difficult because such drugs are very expensive; at times they cannot afford to buy them due to low social economic status.

> *If possible on each date that we come he should be getting medication. If the availability of these medications is possible then they should be available, the day it is not possible then we will try our best. (R6)*

CHAPTER 5

5.1 Discussion

The study highlighted relapse concerns facing patients and their caregivers in the course of schizophrenia illness. The findings suggested that participants perceived 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 could help reduce relapse and promote mental health in patients with schizophrenic.

5.1.1 Potentiators of relapse

5.1.1.1 Non adherence to antipsychotic medication

Non compliance to antipsychotics was demonstrated to be one of the factors that resulted in relapse of several patients from the study. Previous studies have also found that non adherence appear to be one of the factors most likely to increases the risk of relapse in schizophrenic patients (Kazadi, Moosa & Jeenah, 2008). Medication noncompliance and under-compliance continue to be a problem in the treatment of schizophrenia in a study done in United States and Canada; the vast majority of hospital admissions for exacerbation of psychosis have been linked to noncompliance (Liu-Seifeit et al., 2010). In Germany it has been found that patients who tend to experience a relapse are less likely to have a positive attitude toward treatment adherence (Schenacch, Obermeier, Meyer, Jager, Schmaus & Laux, 2012).

The majority of patients in this study were on typical antipsychotic medication and all reported at least one side effect that was at least somewhat bothersome. Typical antipsychotic drugs are likely to produce exrapyramidal side effects and akathisia, which may directly lead to non-adherence (Suttajit &Pilakanta, 2010). Patients reported sedation and exrapyramidal side effects such as rigidity, and tremors, which is consistent with prior research (DiBonaventura, Gabriel, Dupclay, Gupta & Edward, 2012; Tandon, Nasrallah and Keshavan, 2009). Others included impotence, fatigue, drooling saliva, blurred vision, dry mouth and numbness.

The interviews of half of patients revealed lack of ongoing assessment. These patients had at several times stopped attending the psychiatric unit for follow up visits. They had also stopped taking medication believing their symptoms had resolved (Sharif & Ogubanjo, 2003) and that they were cured. Patients who refuse to accept the fact that they are ill may not believe that their symptoms are something

that can be managed, and thus, may be less motivated to take steps to resolve their symptoms, such as taking medication (Aldebot & Weisman de Mamani, 2009).

Lack of awareness among families about the nature of the illness also contributes to discontinuation of treatment. In India when the symptoms were controlled and the patient had recovered sufficiently to become functional, he was seen as being "cured" and no longer in need of treatment (Thara, Padmavati, Aynkran & John, 2008).

The study also revealed that non adherence to medication was caused by the cost of medication especially atypical antipsychotics. Psychiatric services at the unit are usually provided free of charge except for those who opt for private services. Patients receive antipsychotic drugs from the psychiatric unit pharmacy. Whenever drugs are not available in the pharmacy patients have to buy them. Common drugs that patients are compelled to buy are atypical antipsychotics. These drugs tend to be so expensive that patients and their caregivers cannot afford to buy. Hence at times patients are left without medication which in turn leads to relapse. This was expressed by one care giver and is consistent with a study that was done in Tanzania (Mbatia & Jenkins, 2010).

5.1.1.2 Inadequate family support

The family factor is one of the psychosocial factors that affect the clinical course and outcome of schizophrenia including its recurrence. One participant was concerned about the lack of support from his family and significant others. This patient expressed his concern on how he received critical comments from his care givers and how these comments made him feel. It has been shown that patients from families with high criticism had a significantly higher number of psychiatric readmissions and longer cumulative length of stay at psychiatric hospitals than patients from families with low criticism (Marom et al., 2005). High criticism has been found to be associated significantly with poorer outcome and worse illness course (Marom et al., 2002).

Social support deficits are risk factors for non-adherence in schizophrenia. Persons who live alone may lack medication supervision and have difficulty accessing medical care. Lack of support from family might hinder persons with schizophrenia in achieving rehabilitation (Suttajit &Pilakanta, 2010).

One patient also complained of the lack of caregiver support whenever they wanted to be escorted to the hospital for mental health care. A study in Japan found that families do not provide overall psychological support such as ‘listen to the patient as

much as possible' and 'talk to the patient when he/she is in trouble' (Hamada, Ohta, & Nakane, 2003).

5.1.1.3 Stressful life events

Several patients from the study reported that unfavorable events in their lives have in one way or another contributed to a number of relapses in their lives. These events included loss of a child during birth, miscarriage, being angered by care givers, and criticism from care givers. These results are consistent with previous studies that have found that patients with schizophrenia are more sensitive and more susceptible to the negative effects of even minor stressors. Stressful life events are often associated with the onset of a psychotic relapse, usually in the 3 weeks prior the relapse (Murray & Castle, 2000, as cited in Kazadi et al., 2008).

The results are also consistent with a study that was done by Betensky, Robinson, Gunduz-Bruce, Sevy, Lencz, Kane et al. (2008) in New York. Patients with schizophrenia expressed increased stress relating to their domestic environment, which was a result of interpersonal conflicts between patients and their parents, children, neighbors or extended family members.

There is also evidence that patients with schizophrenia have higher than normal levels of emotional reactivity, arousability and trait anxiety (Docherty, St-Hilaire, Aarke & Seghers, 2009). Findings from this study showed that when schizophrenic patients experience stressful life events, they are more likely to have greater symptom increase or exacerbation and hence relapse than those with low in trait reactivity.

Previous studies have also found that patients with schizophrenia who experience a higher number of life events during the previous 6 months are more likely to relapse. These life events include number of psychotic episodes, unemployment, psychological stress and inappropriate treatment (Chabungbam, Avasthi & Sharan, 2007).

5.1.1.4 Substance use

Cannabis use was found to be one of the factors that had precipitated relapse in one patient. Studies in Germany have also shown that second to alcohol, cannabis is the most frequently misused substance among patients with schizophrenia (Hambrecht & Häfner, 2000). In patients with an established psychotic disorder cannabis abuse is associated with a higher risk of psychotic relapses and with poorer social outcome. Many patients continue to consume cannabis products in spite of their clinicians' efforts to educate them about the consequences (Hambrecht & Häfner, 2000).

Given that psychoactive compounds within cannabis can cause or increase psychotic experiences secondary to intoxication effects (Hall & Degenhardt, 2000) it is very plausible that cannabis might lead to increased positive symptoms and subsequently relapse or re-hospitalization in people with psychosis.

It has also been suggested that schizophrenic patients are more vulnerable to the effects of tetrahydrocannabinol, which is the main psychotropic compound of cannabis. Cannabis use has been reported to increase positive symptoms in schizophrenia, while the findings regarding negative symptoms have been contradictory (Gregg, Barrowclough & Haddock, 2007).

However in a systematic review effects of cannabis use on outcomes of psychotic disorders have shown that there is an association with increased relapse and non-adherence but little evidence that associations were specifically due to cannabis use (Zammit, Moore, Lingford-Hughes, Barnes, Burke & Lewis, 2008).

5.1.2 Protectors of relapse

5.1.2.1 Family and peer support

Importance has been given to the family environment as a contributing factor to the relapse or rehabilitation of the patient. The family is an important factor which affects the patient's mental well-being and outcome.

The family support networks were reported as strong by more than half of the participants in this study. Patients were very grateful for the support they received from their care givers during their illness episodes, when attending the clinic for follow up visits, encouragement and supervision when taking their medication and in fulfillment of other basic needs of life like education, employment, and health in general. These results are in agreement with a study of 121 patients and their 121 family members in Japan which found that more than 70% of the families replied that they 'often' or 'sometimes' supported the patients in mental health management and daily living such as 'observation of the condition' and 'taking drugs' (Hamada, Ohta &Nakane, 2003). About 70% of the families answered they would 'continue to care for the patient', and more than 90% of the families answered affirmatively to 'effort and support by the family improve the course of the disease' and 'taking drugs'.

Caregivers appreciated the support they received from other relatives. This tends to reduce the burden they may have to experience in caring for patients with schizophrenia, because the family may itself be burdened by the enormous hardships created by the schizophrenic patient (Sawant & Jethwani, 2010). Helping families to

maintain and enhance a supportive social network may represent a useful means to reduce family burden in schizophrenia (Chien, Sally & Morrisey, 2005).

Caregivers who show more tolerant, non-intrusive and supportive attitudes towards patients help them to achieve better social functioning. Thus, more empathic caregivers can adjust their behaviour according to the patient's emotional state and needs, which protects them from extreme reactions that could eventually trigger a relapse. Furthermore, these empathic attitudes promote the generation of constructive ideas and facilitate the resolution of problems, which can help identify social opportunities (Caqueo-Urízar, Gutiérrez-Maldonado, Ferrer-García, Peñaloza-Salazar, Richards-Araya and Cuadra-Peralta, 2011).

Patients from this study expressed that they also receive support from their friends during the course of their illness. This is supported by study that was done in psychiatric outpatient department of a tertiary care hospital. It was found that schizophrenic patients perceived more support from their friends as compared to their caretakers (Sawant & Jethwani, 2010).

5.1.2.2 Drug adherence

Antipsychotic medication compliance was expressed by patients and their care givers to be a strong protector of relapse. It was found that the relapse risk was substantially lower when a patient was adherent properly to the antipsychotic therapy (Liu-Seifeit, Osuntokun, Godfrey & Feldman, 2010).

Possibly the positive attitude toward medication has contributed to patients staying on treatment longer. It is also possible that longer treatment duration helped patients to gain better insight, and thus a better perception of the medication. Similarly, positive patient attitude and behavior may have contributed to improved psychopathology (Liu-Seifeit et al., 2010).

Conversely, improvement in symptoms and the recognition of this improvement by patients may have led to improvement in their attitude to medication (Liu-Seifeit et al., 2010). Furthermore, patient subjective attitude toward medication is associated with treatment adherence and objective measures of symptom responsiveness among patients with schizophrenia.

Some patients reported lesser antipsychotic drug side effects. Those who were on atypical antipsychotic drugs such as Olanzepine are among patients who were adherent to medications. This is consistent with a study which found that fewer side effects, as well as the effectiveness of atypical antipsychotic drugs in managing psychotic symptoms, might make it more likely that persons will continue their

treatment. Thus, the choice of antipsychotic drug affects adherence to those drugs (Suttajit &Pilakanta, 2010).

5.1.2.3 Religion

Religion was expressed by three patients and their caregivers to have beneficial impacts in the course of their illness. They added that religion, including singing in church choir, creates a sense of belonging, enables them to deal with difficult situations and gives them the strength to move on despite their mental conditions. There is a growing amount of literature suggesting that religion and spirituality may provide positive coping to patients with schizophrenia (Wagner & King, 2005).

The positive impact of spirituality on adherence to treatment is explained by an improved quality of life, a better social support, and more positive representations of the illness by believers. Borras, Mohr, Brandt, Gillie´ron, Eytan, and Huguelet (2007) in their study found that religion affects the self and may improve recovery by instilling hope, purpose, and meaning in life but also affects the adherence to treatment. Adherent patients had more group religious practices (at least once a month). These patients also stressed the importance of community support. Non-adherent patients seemed to have little contact with the community, possibly because of social impairment, inappropriate affects, and little motivation to cope with the active world.

However religion may have negative impacts on the outcome of mental disorders, particularly when it replaces or delays medical treatment. Such findings did not emerge in this study. Some patients may refuse medical care, especially psychiatric care, because of their religious beliefs. Influenced by spiritual leaders, some people may consider spiritual recovery exclusively, to the detriment of medical treatment (Mohr & Huguelet, 2004).

5.1.2.4 Employment

This study also found that having a job was protective against relapse. When patients have a job to earn an income they become independent. This boosts their self esteem and helps them feel that they can contribute something to the family or society. The importance of having meaningful employment has been emphasized in reflecting patients' needs to reach personal goals, hopes, and aspirations, as important components of well-being. This is believed to contribute to both increased self-esteem and to better management and reduction of symptoms including negative, positive, and depressive symptoms (Gunnmo & Bergman, 2011).

Having a job tends to keep patients busy; they tend not to think of their mental illness. Employment has repeatedly been shown to have an important role in

patients' recovery from any severe mental illness, particularly schizophrenia (Dunn, Wewiorski & Rogers, 2008).

The association between employment status and relapse has been previously noted. In an analysis of three years of data for 200 patients with schizophrenia, Schenacch et al. (2012) found that 52% had a relapse; those who experienced a relapse were less likely to be employed or have a job.

Employment not only provides income, it also improves activity and social contacts in patients with schizophrenia and improves self esteem, quality of life, and perhaps leads to better treatment compliance, symptom reduction and insight. It also fosters financial benefits, provide coping strategies for psychiatric symptoms, and ultimately facilitate the process of recovery from mental illness ((Dunn, Wewiorski & Rogers, 2008).

5.1.3 Suggestions to reduce relapse

5.1.3.1 Therapeutic relationship

Therapeutic factors within therapeutic relationships relate to how the patient reacts to the interventions offered by the nurse. This reaction is typified by the notion of a rapport between the patient and the nurse. The rapport refers to the affinity and emotional closeness between two individuals and how this is recognized and used in a therapeutic way. These relationships are therapeutic due to the patient requiring help from a state of despair and the professional nurse has an onus to provide this service or care (Scanlon, 2006).

Patients and their caregivers from this study suggested that mental health nurses and psychiatrists should dedicate their time to listen to their concerns so as to improve patients' conditions. However due to shortage of mental health nurses at the psychiatric unit, this kind of relationship may be poorly formulated, sustained and advanced. The problem of the nurse providing this service is that the psychiatric nurse has so many functions to perform that to provide therapy within a relationship is ultimately so time-consuming and intricate that the nurse cannot fully commit to the therapeutic relationship (Scanlon, 2006).

"Providers (mental health professionals) must create a caring environment, target the patient's level of functioning, listen to concerns, assess for changes in symptomatology, look for risk factors, solicit information about medication adherence, and assess for problems associated with non-adherence, such as, financial concerns, transportation issues, administration difficulties, or cognitive impairments (Hardeman, Harding & Narasimhan, 2010)."

Provider-patient communication is critical to patient adherence. Decisions about adherence are particularly influenced by the patient's perception of the provider's (mental health professional) interest in him or her, as determined by amount of time spent with the provider (Fleischhacker, Oehl & Hammer, 2003). When clients receive good services, they develop trust, which fosters a sense of belonging and a good relationship, leading to positive motivation regarding care (Cheng, Huang, Hsu & Su, 2012).

5.1.3.2 Community home visits

Patients and their caregivers emphasized the importance of home visits by the mental health nurses. They urged that regular visits would enable them to receive psychoeducation on patient management, drug adherence and side effects. They suggested that the use of cell phones could also be beneficial. This would also help mental health providers to monitor patient progress and get to know their concerns. Regular psycho-education programs must be conducted in the community to educate the families about the nature of their relative's illness and the need for sustained medical treatment (Thara, Padmavati, Aynkran & John, 2008).
Community mental health nurses assess clients' symptoms, functional level, ability to care for themselves, whether clients are taking medication regularly, physical problems, support systems, problems clients have interacting with family members and others and clients' knowledge about schizophrenia (Huang, Ma, Shih & Li, 2008). They also may help patients to deal with their symptoms, promote relaxation, and help clients to take medication regularly, improve client's self-care abilities and improve interaction between clients and families (Huang, Ma, Shih & Li, 2008).

McCabe, Bullenkamp, Hansson, Lauber, Martinez-Leal, Rossler et al. (2012) found that better therapeutic relationship between patients with schizophrenia and their clinicians (professional qualification in mental health) in community care are important for adherence to antipsychotic medication. However community living is difficult for most people with schizophrenia and their families, many of whom experience insufficient services and frequent re-hospitalization in times of crisis (Cheng, Huang, Hsu & Su, 2012). Community mental health nurses considered that they have the ability to teach patients about the importance of the medication regime and how to deal with side-effects (Cheng, Huang, Hsu & Su, 2012). However due to shortage of community mental health nurses currently, such services are not carried out at the MNH psychiatric unit.

Studies have found that increasing mutual understanding and harmony among family members, strengthening the patient's functioning at home, increasing the family members' understanding of psychiatric symptoms and improving their caring

skills are the most important tasks of community mental health nurses with regards to lightening the caregiver burden (Cheng, Huang, Hsu & Su, 2012).

5.1.3.3 Psychoeducation

The purpose of patient education/teaching (or psychoeducation) is to increase patients' knowledge and understanding of their illness and treatment. It is supposed that increased knowledge enables patients with schizophrenia to cope more effectively with their illness. Psychoeducational interventions involve interaction between the information provider and the mentally ill person (Xia, Merinder, Belgamwar, 2011).

Patients were concerned that medications only would not reduce the problem of relapse. They appreciated the mental health sessions conducted by nurses before the appointments with psychiatrists. They urged mental health nurses to also provide more counseling and psychoeducation sessions which would help improve their condition. Patients who understand their illness, medications, and treatment expectations consistently demonstrate better adherence (Nosé, Barbui, &Tansella, 2003).

Caregivers suggested the importance of educating families with mentally ill individuals on risk factors of mental illness so as to protect those who have not developed symptoms. Communication with family or significant others is helpful and often necessary in treating patients with schizophrenia. A meta-analysis of programs that included families in the comprehensive treatment of schizophrenia showed that education and support training for families reduced relapse and improved adherence up to 20% (Pitschel-Walz, Leucht, Bauml, Kissling & Engel, 2001). In addition, psychoeducation family intervention was found to reduce relapse and re-hospitalization rates of schizophrenic patients.

Repeating information and clarifying understanding is essential. Because lack of insight is often a problem in schizophrenia, education must be aimed at improving insight, garnering cooperation, and associating the information to what is important to the patient. Psychoeducation programs for patients, families, and caregivers aimed at coping with schizophrenia have been shown to improve adherence, reduce substance abuse, reduce relapse, and shorten hospital stays (Cassidy, Hill & O'Callaghan, 2001).

It should be noted that psycho-educational programmes do not only provide information, but also reinforce the idea of respect for families and encourage them to consider themselves as co-therapists in the process. In this way, the therapeutic team and the family can develop a less polarized and less stressful relationship, and even

more reluctant family members become more willing to cooperate, thereby reducing the burden on both parties (Caqueo-Urízar et al., 2011).

5.1.4 Strengths and limitations

The choice of qualitative method in conducting the study was found to be logical as research was aimed at understanding the experiences of relapse in a group of people. The sample presented a cross-section of the study population who were able to provide relevant information as key informants. The variation in gender and in treatment regimens ensured that the sample was a fair and adequate reflection of the study population. The use of exploratory questions in Swahili audio recorded interviews and field notes enhanced reliability and validity of the study.

The researcher has attempted to delineate the range of views that patients with schizophrenia who have relapsed and their caregivers may commonly hold and the explanations they might have for these views. To facilitate the readers' possibilities to judge the transferability to other settings, description of participants, the setting, data collection, analysis and presentation of findings with illustrative quotes are given.

The results should be transferred with caution as recruiting caregivers who had accompanied patients to the Psychiatric Out-patient Department probably contributed to inclusion of caregivers with very good relationship with their patients and interest in patient care. They might have also given socially desired answers. However the atmosphere during the interview indicated honesty. In addition, the small sample may limit the transferability of the findings particularly in relation to ethnicity and social economic conditions. A larger sample of participants with diverse characteristics could have resulted in different perspectives of relapse experience.

CHAPTER 6

6.1 Conclusion and recommendations

This study highlighted the perceptions of patients with schizophrenia and their caregivers about factors that mostly influence relapse. On one hand, the presence of poor antipsychotic drug adherence due to medication side effects, belief of being cured and cost of antipsychotic medication, poor family support, stressful life events and substance use appear to be the factors mostly likely to increase the risk of relapse. On the other hand, family and peer support, adherence to antipsychotic medication, employment and religion appear to protect patients from relapse. In addition, psychoeducation, community home visits and good nurse-patient, psychiatrist-patient therapeutic relationships were emphasized to help reduce relapse.

Management of patients with schizophrenia can be improved by addressing the factors influencing relapse as highlighted in this study. The findings call for improvement in mental health care service delivery to patients with schizophrenia. It is important that in the local context, mental health nurses strengthen their therapeutic relationships with patients and their caregivers. This enables patients and their caregivers to express their needs and concerns to the nurse, and the nurse to plan proper interventions in caring for the patient; meanwhile working with other mental health professionals as a team.

Emphasis in psychoeducation for patients and their caregivers suggests a need for regular individual psychoeducation sessions and community based interventions with patients and their care givers, conducted by mental health nurses. This would help identify relapse factors along with establishing ways of improving adherence to treatment, family support and mental health nursing care. These sessions would also provide an opportunity for reflection on the current nursing practice and social-cultural factors and their implications for mental health. Building in existing programs such as the community mental health service at the department of psychiatry would be another approach to reduce relapse. Yet the challenge today is the presence of a non functioning community mental health service which has only one community mental health nurse. Well established community mental health services would help reduce relapse and mental health service costs in schizophrenic patients, their families and the health sector at large.

The results can be exploited in influencing health policy makers to improve mental health and reduce the burden of relapse in patients with schizophrenia, their families and community as a whole. In addition, the results can help establish clear policies articulating measures to reduce relapse in patients with schizophrenia and then develop systematic plans with dedicated budget and agreed timelines.

Further research needs to be undertaken in various contexts similar to and different from this study. Studies that incorporate a larger and more diverse sample of patients with schizophrenia and their caregivers would provide an understanding about factors influencing relapse among patients with schizophrenia.

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Appendix A

English consent form

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

DIRECTORATE OF RESEARCH AND PUBLICATIONS, MUHAS

ID-NO | | | | | | | | | |

Consent to participate in a study about factors influencing relapse among individuals with schizophrenia in Dar es Salaam

Greetings! My name is **Adellah Sariah**. I am a nurse working on a research project with the objective of exploring perceived factors influencing relapse among individuals with schizophrenia in Dar es Salaam, Tanzania.

Purpose of the Study

The purpose of the present study is to explore factors influencing relapse among individuals living with schizophrenia. This will enable mental health service providers improve and identify new interventions for caring for schizophrenic patients and thus reduce relapse rates in people living with schizophrenia.

What Participation Involves

If you agree to join the study, you will be interviewed and the information that you are going to give will be recorded with a digital recorder and the researcher will also note down important points. During the interview you will be asked about demographics, and your perceptions about factors influencing relapse in individuals with schizophrenia. It will take about 50-60 minutes to complete the interview.

Confidentiality

All information we collect on the digital recorder and notes will be entered into computers with only the study identification number. All information that will be collected from you will be protected. The study will not include details that directly identify you, such as your name. Only a participant identification number will be

used in the interview. Only a small number of researchers will have direct access to the interview. If this study is published, or presented at a scientific meeting, names and other information that might identify you will not be used.

Risks

We do not expect that any harm will happen to you because of participating in this study.

Rights to Withdraw and Alternatives

Taking part in this study is completely your choice. You are free to skip any question if you feel uncomfortable to disclose information. If you or your relative chooses not to participate in the study or if you decide to stop participating in the study you or your relative will continue to receive all mental health services that you would normally get from this unit. You can stop participating in this study at any time, even if you have already given your consent. If you refuse now, but wish to enter the study later, we will be ready to accept you. Refusal to participate, or withdrawal from the study, will not involve penalty or loss of **any** benefits to which you are otherwise entitled.

Benefits

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 individuals with schizophrenia. Your participation will also help in formulating new interventions which will be used to minimize relapse in individuals with schizophrenia.

In Case of Injury

We do not anticipate that any harm will occur to you or your relative as a result of participation in this study. However, if any physical/psychological injury resulting from participation in this research should occur, we will provide you or your relative with medical/psychological treatment according to the current standards of care in Tanzania. There will be no additional compensations to you or your relative.

Who to Contact

If you ever have questions about this study, you should contact the study Coordinator or the Principal Investigator Adellah Sariah (0714 119810) Muhimbili University of Health and Allied Sciences, P.O.Box 65001, Dar es Salaam). If you ever have questions about your rights as a participant, you may call the Principle Investigator or Prof. M. Aboud, Director of Research and Publications at MUHAS, P.O. Box 65001, Dar es Salaam. Tel: 2150302-6.

Signature:

Do you agree to participate?

Participant agrees …… Participant does NOT agree ……

I, _____ have read the contents in this form. My questions have been answered. I agree to participate in this study.

Signature of participant _____

Signature of witness (if person/caretaker cannot read) _____

Signature of research assistant _____

Date_____

Swahili consent form

CHUO KIKUU KISHIRIKI CHA SAYANSI YA AFYA CHA MUHIMBILI KURUGENZI YA UTAFITI NA MACHAPISHO

Namba ya utambulisho | | | | | | | | | |

Idhini ya kushiriki utafiti wa kuchunguza hali zinazosaidia kuathiri kurudiwa na ugonjwa (kuugua tena) kwa watu wenye skizofrenia Dar es Salaam.

Salaam! Jina langu ni **Adellah Sariah.** Ni muuguzi ninayefanya kazi katika mradi wa utafiti unaolenga kuchunguza hali zinazosaidia kuathiri kurudiwa na ugonjwa (kuugua tena) kwa watu wenye skizofrenia Dar es Salaam, Tanzania.

Lengo la utafiti

Lengo la utafiti huu ni kugundua hali zinazosaidia kuathiri kurudiwa na ugonjwa (kuugua tena) kwa watu wenye skizofrenia Dar es Salaam. Uchunguzi wa namna hii utasaidia kuwawezesha watoa huduma wa afya ya akili kutoa huduma bora zaidi na kutambua njia mpya za kuwahudumia wagonjwa wenye skizofrenia ambazo zitapunguza kiasi cha wagonjwa wenye skizofrenia wanaorudiwa na ugonjwa.

Mambo muhimu katika kushiriki kwenye utafiti huu

Kama utakubali kushiriki katika tafiti huu, utahojiwa, taarifa utakayotoa itachukuliwa na kinasa sauti. Pia mtafiti atakuwa anaandika taarifa muhimu utakazokuwa ukitoa.Wakati wa mahojiano utaulizwa kuhusu demografia yako na mtazamo wako kuhusu hali zinazosaidia kuathiri kurudiwa na ugonjwa (kuugua tena) kwa watu wenye skizofrenia. Mahojiano haya yatachukua muda wa dakika 45-60 kumalizika.

Usiri

Taarifa zote zitakazokusanywa kwa kinasa sauti na maandishi kupitia fomu hii zitaingizwa kwenye kinakirishi (kompyuta) , huku namba ya utambulisho tu katika utafiti ikitumika badala ya jina la mtoa taarifa. Taarifa zote zitakazokusanywa zitalindwa na kutunzwa kuheshimu usiri wa mtoa taarifa. Utafiti huu hautahifadhi taarifa ya aina yoyote ile ambayo moja kwa moja inakutambulisha wewe kama mtoa taarifa, kwa mfano jina lako. Namba ya utambulisho katika kushiriki utafiti huu peke yake ndiyo itatumika katika mazingira yote ya utafiti. Idadi ndogo sana ya

watafiti watakaokuwa na uwezo wa kufungua na kuona taarifa zitakazokusanywa katika utafiti huu. Na kama utafiti huu utachapishwa au kuonyeshwa katika mikutano ya kisayansi basi majina na taarifa nyingine zinazoweza kukutambulisha wewe moja kwa moja hazitatumika.

Madhara

Hatutegemei kuwa madhara yoyote yanaweza kukupata kwa kushiriki katika utafiti huu.

Haki ya kujitoa na njia mbadala za kushiriki

Kushiriki ama kutoshiriki katika utafiti huu ni uamuzi wako. Uko huru kutokujibu swali lolote ambalo kwa sababu yoyote ile unaona si vyema kulitolea jibu. Kama wewe au yako mkiamua kutokushiriki au mkiamua kutokuendelea kushiriki utafiti, uamuzi huu hautaathiri huduma yoyote mnayopata, mtaendelea kupata huduma zote za hospitali hii kama kawaida. Kama italazimu, uko huru kutoshiriki katika utafiti huu hata kama awali ulikuwa tayari umeshatoa idhini ya kushiriki. Vile vile, kama ukikataa na baadaye ukaona uko tayari kushiriki, timu ya watafiti itakuwa tayari kukupokea tena kwa moyo mkunjufu. Kwa kifupi, uamuzi wako wa kukataa kushiriki ama kujitoa kuendelea na ushiriki katika utafiti huu hakuta sababisha wewe kupewa adhabu ama kunyimwa huduma na mafao ya aina yoyote ambayo ni haki yako ya msingi.

Mafao

Hakuna mafao ya moja kwa moja. Hata hivyo kama utakubali kushiriki katika utafiti huu, mchango wako katika kushiriki utakuwa na manufaa katika kuboresha njia zinazotumika kwa sasa kuzuia kurudia kwa ugonjwa kwa watu wenye skizofrenia. Ushiriki wako utasaidia kutengeneza/kugundua njia mpya ambazo zitatumika kupunguza kasi ya kurudiwa na ugonjwa kwa watu wenye skizofrenia.

Kama ikitokea umedhurika

Hatutarajii kama kushiriki katika utafiti huu kutaleta madhara yoyote kwako ama kwa yako. Hata hivyo, kama katika hali yoyote ungali ukishiriki katika utafiti huu ukapatwa na madhara ya kimwili/viungo, tutakupatia wewe au ndugu yako matibabu kulingana na taratibu za utoaji huduma ambao Tanzania kama nchi imejiwekea. Hakutakuwa na fidia ya moja kwa moja kwako au kwa ndugu yako.

Mtu wa kuwasiliana naye

Kama una maswali zaidi juu ya utafiti huu, tafadhali wasiliana na mtafiti mkuu Adellah Sariah, RN (0714 119810) Muhimbili University of Health and Allied Sciences, P.O.Box 65001, Dar es Salaam). Pia kama una maswali juu ya haki zako katika kushiriki kwenye utafiti huu unaweza wasiliana na mtafiti mkuu au Prof. M.

Aboud, Mkurugenzi wa tafiti na machapisho hapa MUHAS, P.O. Box 65001, Dar es Salaam. Tel: 2150302-6.

Sahihi:
Unakubali kushiriki katika utafiti huu?

Nakubali: …… Sikubali: ……..

Mimi, _____ Nimesoma kwa umakini kilichoandikwa katika fomu. Maswali yangu yote yamejibiwa. Nakubali kushiriki katika utafiti huu.

Sahihi ya mshiriki _____

Sahihi ya shahidi _____

Sahihi ya mtafiti msaidizi _____
Tarehe: _____

Appendix B

Patients' in-depth interview guide (English version)

Patients who have consented to participate in the study will be asked by the researcher to provide their demographic information. This will describe the population and also help to build rapport between the participants and the researcher before the in-depth interviews.

Demographic Data

ID No ……

Age……

Sex……

Level of education……..

Occupation……..

Marital status……

Relationship with care giver……..

Client's diagnosis……...

Type of antipsychotics taken……..

Number of previous relapse episodes……

In-depth interview guide

1. What would you say are the reasons for you to experience relapses?

2. What assists you to cope with this illness that could protect you from relapse? (Probe: Medication, mental health care, friends, religious faith, family support, work, life style or other).

3. What makes it difficult for you to cope with this illness? (Probe: Medication side effects, poverty, unemployment, violence, family conflict, shame, communication, substance use).

4. What suggestions would you like to make to the mental health nurses regarding relapse reduction or prevention?

Patients' in-depth interview guide (Swahili version)

Wagonjwa watakaokubali kushiriki katika utafiti huu watatakiwa kutoa taarifa zao za demographia kwa mtafiti. Taarifa hizi zitatoa wasifu wa washiriki na pia zitasaidia kujenga maelewano na uhusiano mzuri kati ya mshiriki na mtafiti kabla ya mahojiano.

Taarifa za demografia

Namba ya utambulisho …….

Umri……..

Jinsia…….

Kiwango cha elimu…….

Kazi……..

Hali ya ndoa……..

Uhusiano na mwangalizi wa mgonjwa……

Ugonjwa uliobainishwa……..

Aina ya dawa za akilli zinazotumika……..

Idadi ya matukio ya kurudiwa na ugonjwa……

Mwongozo wa mahojiano na wagonjwa

1. Ni nini sababu zinazokufanya urudiwe rudiwe na huu ugonjwa?

2. Ni vitu gani vinakusaidia uvumilie huu ugonjwa ambavyo hukulinda na kurudiwa rudiwa na ugonjwa? (Chunguza zaidi: Dawa, huduma ya afya ya akili, marafiki, imani ya kidini, msaada wa kifamilia, kazi, staili ya maisha na mengineyo)

3. Ni vitu gani vinafanya iwe vigumu kwako kuvumilia huu ugonjwa? (Chunguza zaidi: Maudhi madogomadogo ya dawa, umasikini, kutokuwa na kazi, vurugu, ugomvi katika familia, fedheha, mawasiliano na matumizi ya dawa za kulevya).

4. Ungependa kutoa maoni gani kwa wauguzi wa afya ya akili kuhusu kupunguza/kuzuia kurudiwa rudiwa na huu ugonjwa?

Appendix C

Relatives' in-depth interview guide (English Version)

Care givers who have consented to participate in the study will be asked by the researcher to provide their demographic information. This will describe the population and also help to build rapport between the participants and the researcher before the in-depth interviews.

Demographic Data

ID No……

Age……

Sex……

Level of education……..

Occupation……..

Marital status…….

Relationship with patient……..

Number of previous relapse episodes ……

In-depth interview guide

1. What would you say are the reasons for your relative to experience relapses?

2. What assists your relative to cope with this illness that could protect him/her from relapse? (Probe: Medication, mental health care, friends, religious faith, family support, work, life style or other).

3. What makes it difficult for the patient to cope with this illness that could contribute to relapse? (Probe: Medication side effects, poverty, unemployment, violence, substance use, family conflict, shame, communication).

4. What suggestions would you like to make to the mental health nurses regarding relapse reduction?

Relatives' in-depth interview guide (Swahili version)

Ndugu waangalizi wa wagonjwa watakaokubali kushiriki katika utafiti huu watatakiwa kutoa taarifa zao za demographia kwa mtafiti. Taarifa hizi zitatoa wasifu wa washiriki na pia zitasaidia kujenga maelewano na uhusiano mzuri kati ya mshiriki na mtafiti kabla ya mahojiano.

Taarifa za demographia

Namba ya utambulisho……..

Umri……

Jinsia…….

Kiwango cha elimu……

Kazi……..

Hali ya ndoa…….

Uhusiano na mgonjwa……..

Idadi ya matukio ya kurudiwa na ugonjwa…….

Mwongozo wa mahojiano na ndugu wa wagonjwa

1. Ni nini sababu zinazokufanya ndugu yako aurudiwe rudiwe na huu ugonjwa?

2. Ni vitu gani vinamsaidia ndugu yako auvumilie huu ugonjwa ambavyo humlinda na kurudiwa rudiwa na ugonjwa? (Chunguza zaidi: Dawa, huduma ya afya ya akili, marafiki, imani ya kidini, msaada wa kifamilia, kazi, staili ya maisha na mengineyo)

3. Ni vitu gani vinafanya iwe vigumu kwa ndugu yako kuvumilia huu ugonjwa? (Chunguza zaidi: Maudhi madogomadogo ya dawa, umasikini, kutokuwa na kazi, vurugu, ugomvi katika familia, fedheha, mawasiliano na matumizi ya dawa za kulevya).

4. Ungependa kutoa maoni gani kwa wauguzi wa afya ya akili kuhusu kupunguza/kuzuia kurudiwa rudiwa na huu ugonjwa?

Appendix D

Ethical clearance letter

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
DIRECTORATE OF POSTGRADUATE STUDIES

P.O. Box 65001
DAR-ES-SALAAM
TANZANIA
Telefax: 255-022-2150465
Telegrams: UNIVMED

E-MAIL dpgs@muhas.ac.tz
TEL: (255-022)-2150302-6 Ext. 207
Direct line: 2151378

Ref. No. MU/PGS/SAEC/Vol. VI/251

28th March, 2012

Ms. Adella Sariah,
MSc. Nursing Mental Health,
MUHAS.

RE: APPROVAL OF ETHICAL CLEARANCE FOR A STUDY TITLED "FACTORS INFLUENCING RELAPSE AMONG INDIVIDUALS WITH SCHIZOPHRENIA: THE PERSPECTIVES OF PATIENTS AND THEIR CARE GIVERS"

Reference is made to the above heading.

I am pleased to inform you that, the Chairman has on behalf of the Senate approved ethical clearance for the above-mentioned study.

Thus ethical clearance is granted and you may proceed with the planned study.

Please liaise with bursar's office to get your research fund.

Prof. Z. Premji
DIRECTOR, POSTGRADUATE STUDIES

/emm

c.c. Vice Chancellor, MUHAS
c.c. Deputy Vice Chancellor – ARC, MUHAS
c.c. Dean, School of Nursing

Introduction letter

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
DIRECTORATE OF POSTGRADUATE STUDIES
P.O. Box 65001
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Telefax: 255-022-2150465
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E-MAIL dpgs@muhas.ac.tz
TEL: (255-022)-2150302-6 Ext. 207
Direct line: 2151378

Ref. No. HD/MUH/T.100/2010

4th April, 2012

Executive Director,
Muhimbili National Hospital,
P.O. Box 65000,
DAR ES SALAAM.

Re: INTRODUCTION LETTER

The bearer of this letter Ms. Adellah Sariah is a student at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing taking MSc. In Mental Health.

As part of her studies she intends to do a study titled: ***"Factors influencing relapse among individuals with schizophrenia: The perspectives of patients & their care givers".***

The research has been aproved by the Chairman of MUHAS Research Ethics Committee.

Kindly provide her the necessary assistance to facilitate conduct of her research.

We thank you for your cooperation.

Muhimbili University of Health and Allied Sciences * P.O. Box 65001 * DIRECTOR Postgraduate Studies

Tija Ukondwa
For: DIRECTOR, POSTGRADUATE STUDIES

TU/emm

cc: Ms. Adellah Sariah
cc: Dean, School of Nursing

Permission letter

MUHIMBILI NATIONAL HOSPITAL

Cables: "MUHIMBILI"
Telephones: 255-22-2151367-9
FAX: 255-22-2150234
Web: www.mnh.or.tz

Postal Address:
P.O. Box 65000
DAR ES SALAAM
Tanzania

In reply please quote:
Ref:

20th April 2012

TO WHOM IT MAY CONCERN
MUHIMBILI NATIONAL HOSPITAL

RE: RESEARCH CLEARANCE NO 184 2012/2013

Name of Researcher	**ADELLAH, SARIA**
Research Title	FACTORS INFLUENCING RELAPSE AMONG INDIVIDUALS WITH SCHIZOPHRENIA; THE PERSPECTIVE OF PATIENTS AND THEIR CARE GIVER
Type of Research	QUALITATIVE STUDY DESIGN WHICH WILL BE CONDUCTED AT OUTPATIENT CLINIC AT PSYCHIATRY DEPARTMENT IN MNH
Valid Between	**APRIL TO MAY 2012**

The above named has been allowed to conduct the stated research.

Please accord him/her and his/her assistants the necessary assistance/cooperation.

Sincerely,

Dr. H.F. Swai
DIRECTOR OF MEDICAL SERVICES

DIRECTOR OF CLINICAL SERVICES
P. O. Box 65000
DAR ES SALAAM
MUHIMBILI NATIONAL HOSPITAL