PERCEIVED BARRIERS TO MENTAL HEALTH SERVICES UTILIZATION AMONG ADULTS IN DODOMA MUNICIPALITY.

By

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A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Mental Health Nursing of Muhimbili University of Health and Allied Sciences.

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CERTIFICATION

The undersigned certifies that she has read and hereby recommends for acceptance the dissertation titled: ***Perceived Barriers to Mental Health Services Utilization among Adults in Dodoma Municipality*** in partial fulfillment of the requirements for the degree of Master of Science in Mental Health Nursing of Muhimbili University of Health and Allied Sciences.

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DECLARATION AND COPYRIGHT

I, Tumbwene E. Mwansisya 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 a similar or any other degree award.

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DEDICATION

This thesis is dedicated to my beloved wife, Gwantwa, who has taught me to enjoy the moment and instilled new hope for envisioning the biggest dreams coming true.

ABSTRACT

INTRODUCTION.

The high prevalence of psychiatric disorders locally indicates an enormous need for mental health services. This study determined the barriers to mental health service utilization among the adult population in Dodoma, Tanzania.

METHODOLOGY

The concurrent mixed method model (quantitative and qualitative methods)was used that required participant to respond to perceived causes of mental illness, decision making for treatment option, and perceived barriers. In the quantitative part the study (n=152) was analyzed by using EPI- Info 2002 statistical software package. Univariate and multivariate statistical analyses were applied to determine the significant associations between selected risk factors and mental health service utilization. In the qualitative part the in-depth interviews (n = 10) were carried out as determined by saturation principle. Content analysis was used. Both the latent and manifest content of analyses are reported.

RESULTS

The majority of respondents (93.4%; n=142) opted for attendance at modern care/mental health facility. This was followed by the spiritual healing (62.9%; n=95), (42.4%; n=64) traditional healers and herbal medicines (30.3%; n=46). Drug abuse was identified as a major cause of mental illness (91.95 %; n=138) , followed by effect of curse or God's will (75.17; n=113), witch craft (65.77 %; n = 99) demons or evil spirit possession (63.76%; n=96) and Marriage conflict (48.68%; n = 74). The most prevalent barriers were the monetary, long distance, stigma, lack of transport, unawareness pertaining to where to get mental health services, discrimination and poor services.

CONCLUSION

The way one perceives mental illness has an influence in decision making regarding using mental health services. There is need for policy makers to integrate mental health into primary care. There should be mutual sharing of knowledge between mental health professional and tradition healers.

ABREVIATIONS AND ACRONYMS

List of Abbreviation

AMO	Assistant Medical officer
CHMT	Council Health Management Team
HBM	Health Belief Model.
HIV/AIDS	Human Immune Virus/ Acquired Immune Deficiency Syndrome
MHGAP	Mental Health Global Action Programme.
MHSU	Mental Health Services Utilization.
MOH & SW	Ministry of Health and Social Welfare.
MUHAS	Muhimbili University of Health and Allied Sciences.
PB	Perceived Barriers.
PI	Principal Investigator
RA	Research Assistant
TUSPO	Tanzania Users and Survivors of Psychiatry Organization
WHO	World Health Organization

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CHAPTER ONE: INTRODUCTION

Background

One in every four people, or 25% of individuals, develops one or more mental disorders at some stage in life (WHO, 2001a). The prevalence of mental illness in the adult population at any given time is about 10% (WHO, 2001b).

This burden creates an enormous toll in terms of suffering, disability, and economic loss. While mental disorders affect people in all groups of society in all countries, the poor are disproportionately affected. Mental health problems represent five of the 10 leading causes of disability worldwide; amounting to nearly one-third of the disability in the world. Tackling this public health burden is a global challenge, for mental health systems in many countries remain seriously under-resourced and under-developed (Tausig and Subedi 1997; WHO 200a).

A study from the Latin American country Belize, (reviewing each record of all health-care providers who treated mental disorders) found that about 63% of individuals with schizophrenia were untreated; 89% of those with affective disorders had not been treated; and 99% of those with an anxiety disorder also had not been treated (Bonander et al., 2000). The studies that are available are of highly selected regions. There are few studies of low income countries, where services are scarce. The treatment gap could be much higher.

Almost 90% of global health expenditure occurs in high-income countries which have only 16% of the world population (Schieber & Maeda, 1997). This disparity in expenditure is likely to be worse in the area of mental health because one-third of countries do not have a specific mental health budget, while 36% of those countries that do, allocate less than 1% of their public health budget to mental health (WHO, 2001). There is a widespread view that mental health problems in low-income countries could and should be tackled at the primary care level (Institute of Medicine, 2000), but on the basis of the current functioning of primary health care, there is only limited evidence to

support such an approach, and almost no economic data (de Jong, 1996; Chisholm et al., 2000; Murthy et al., 2005).

It has been found that in Tanzania most people view psychiatric illness **not as disease but as a curse**, a product of both witch craft and evil spirits of which the patient himself is counted as the main contributor (Mbatia & Kilonzo 1999; Njenga, 2002). This self generating attitude of mental illness leads to psychiatric stigma and laxity by the community to take care of the illness. This causes patients to go without drugs for a long time which leads, in turn, to chronicity (Tanzania Users and Survivors of Psychiatry Organization (TUSPO, 2005). About 80% of individuals who are mentally ill reported being treated by traditional healers causing patients to go without drugs for a long time (Ngoma et al., 2006). Matomora (1989) through Mvumi community-based health care program in Dodoma Region has found that involvement of communities in promoting their health by using communication and adult training skills has great efficacy on acceptance for utilization. Such activities included training of community resource persons such as traditional midwives and village health promoters/workers. This study determined the barriers to mental health service utilization among the adult population in Dodoma municipality.

Statement of the Problem

In Tanzania there seven Tertiary hospitals and one Psychiatric hospitals that supports training in mental health , 18 Regional Hospitals, 86 District hospitals, 132 district councils at Secondary level, 541 Health Centers and 4,904 Dispensaries at primary care with integration of mental health services (MOH & SW, 2006). The continuing disparities in health outcomes between poor and rich and rural and urban Tanzanians needs to be addressed, along with the barriers to service experienced due to distance, formal and informal health charges, and other obstacles (MOH & SW, 2003).

Mental health services are free in Tanzania but clients with mental illness usually do not seek mental health services. The prevalence of mental disorder for those attending at

primary health care is about 24% and for those attending at traditional healers is 48% (Ngoma, 2003). More than 80% of those individuals with mental disorders attend traditional forms of care (including religion, traditional healers and herbal treatment) before coming to mental health services. Others may never attend at all (MoH & SW, 2006). The reason for not seeking the mental health services is still uncertain. According to Mbatia and Kilonzo (1999) some barriers to mental health service utilization are due to lack of mental health workers in most villages in which by about 80% of Tanzania citizens are living.

Many studies have been conducted to investigate stigma and cost in relation to mental health services utilization. However, the barriers to mental health service utilization have not been well investigated. This study used adult population in Dodoma (a region in which mental health services are available) to examine the barriers to the utilization of mental health services.

Identifying the barriers to the development of mental health care is the first step in overcoming them and improving the use of scarce resources. If they are not tackled, these barriers could exacerbate problems of inequity, worsen allocative and productive inefficiencies and make it harder for services to respond effectively to the needs of service users.

Objectives

The Main Objective

The main objective of this study is to determine perceived barriers to mental health service utilization among adults aged 18 years and above in Dodoma municipality.

Specific Objectives

1. There is no relationship between socio-demographic and mental health service utilization.

2. To explore perceptions towards mental illness among adults in Dodoma municipality.
3. To determine the association between access and barriers to utilization of mental health services.
4. To examine the decision-making process of the community on mental health service utilization.

Research Hypotheses

- To determine the association between socio-demographic data and mental health service utilization.
- There is no relationship between attitudes towards mental illness and mental health service utilization (MHSU).
- There is no relationship between barriers and mental health services utilization.
- There is no relationship between decision making on perceived mental illness and use of the available mental health services.

Rationale

- This study will add knowledge about mental health services by bridging the gap between barriers and MHSU through taking appropriate measures.
- The results will be communicated to policy and decision makers to improve mental health service utilization.
- This study is part of my academic requirement for MSc. in Mental Health Nursing at Muhimbili University of Health and Allied Sciences (MUHAS).

Theoretical Framework

Health Belief Model

The HBM was originally developed in the 1950s by social psychologists working at the U.S. Public Health Service to explain why many people did not participate in public health programs such as TB or cervical cancer screening (Janz et al., 2002, Rosenstock, 1974). It has subsequently been used to guide the design of interventions to enhance compliance with preventive procedures (Rosenstock, 1974). Theoretical models of the Health Belief Model (HBM) suggest that individual progress through several stages before seeking health help. These stages include experiencing symptoms, evaluating the severity and consequences of the symptoms, assessing whether treatment is required, assessing the feasibility of and options for treatment, and deciding whether to seek treatment (Goldberg, 1980). The HBM allows us to consider the probable psychological factors that influence a patient's decision to engage with health services (Hochbaum et al., 1950). HBM was used in this study to discover the relationship of perceived barriers and mental health service utilization (MHSU).

Figure 1: Health Belief Model

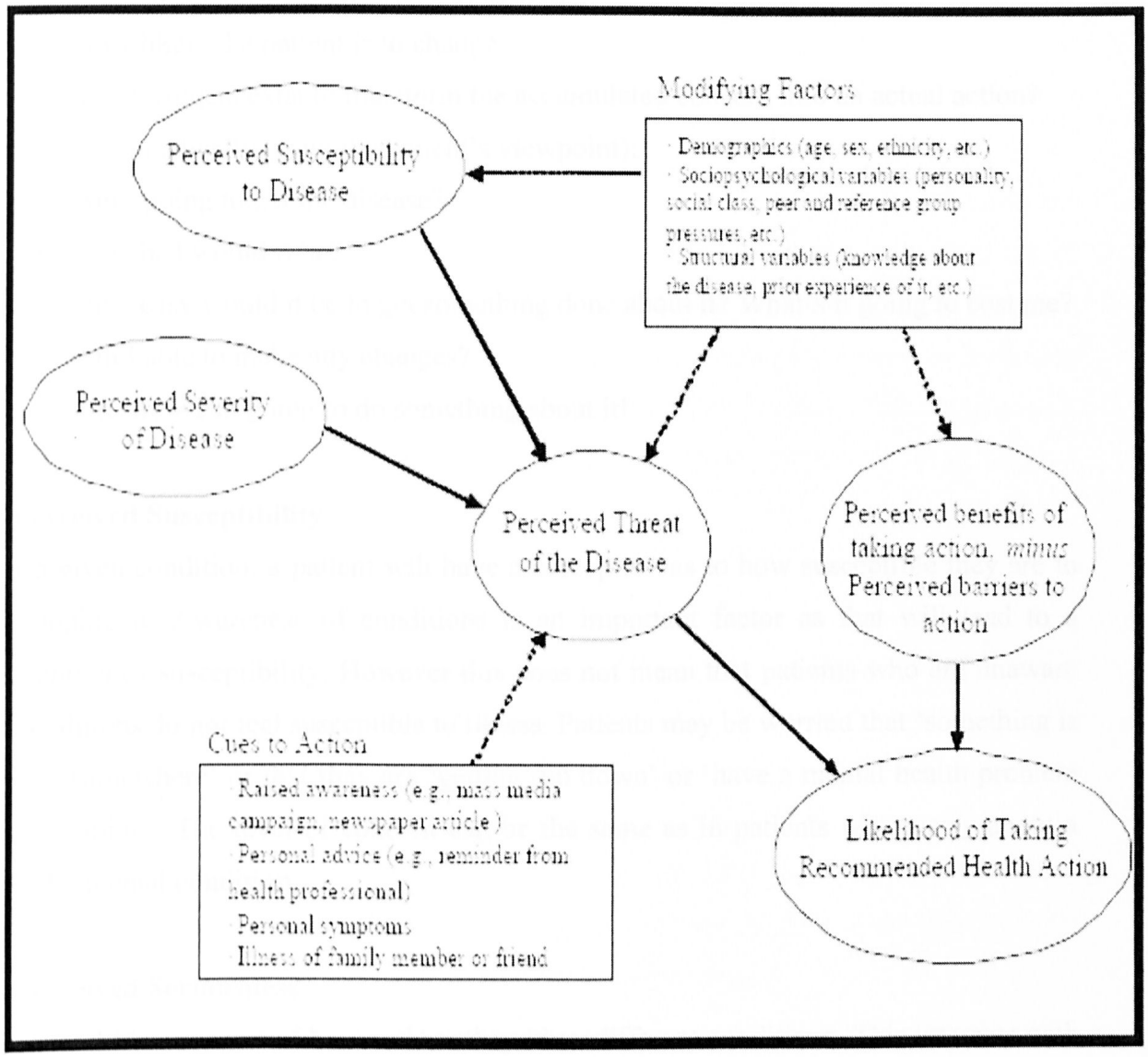


Figure 1: The variables in the Health Belief Model. Adapted from Rosenstock, Janz and others (Janz et al., 2002, Rosenstock, 1974).

The model considers 5 main areas that are likely to influence whether a patient will choose to seek help about a health related issue:

a. How susceptible they feel to disease (specific or non-specific).
b. How serious that disease is likely to be.

c. What benefits, disadvantages and barriers to acting upon those perceptions are likely to exist (for each course of action)?
d. How likely the patient is to change.
e. What triggers exist to transform the accumulated concern into an actual action?

Or more simplistically (from the patient's viewpoint):

a. Am I going to get the disease?
b. How bad would it be?
c. How easy would it be to get something done about it? What's it going to cost me?
d. Am I able to make any changes?
e. OK, **now** I'm going to do something about it!

1. Perceived Susceptibility

For a given condition, a patient will have a perception as to how susceptible they are to developing it. Awareness of conditions is an important factor as that will lead to a *perception* of susceptibility. However this does not mean that patients who are unaware of conditions do not feel susceptible to illness. Patients may be worried that 'something is wrong somewhere' or that they are 'getting run down' or 'have a mental health problem or something'. The level of concern can be the same as in patients who worry about a specific mental condition.

2. Perceived Seriousness

Patients differ in terms of how serious they view different conditions. This interacts with the perception of susceptibility. A patient may be at low risk of developing mental illness, but since he perceives it as a very serious condition he may feel motivated to see his mental health professionals for care on the other hand, a patient may consider a disease a trivial and feel that he is somehow wasting the doctor's time and therefore decide not to go to the mental health services.

3. Perceived Benefits and Barriers

Patients are often faced with different options in choosing how to deal with their health concerns. They will often weigh the benefits and disadvantages to each course of action,

and what disadvantages there are. They will also consider perceived barriers. How patients decide which route to take, and how much gravity they give individual benefits, disadvantages and barriers may differ markedly from person to person.

4. Self-Efficacy

Self-efficacy is a term used to describe how a person views their own ability to carry out a particular action. This includes the patient's perception on how likely they are to change particular behaviours. A perception of low self-efficacy is the barrier to taking action in this case. Health seeking behavior and responses such as adherence to interventions are reportedly profoundly influenced and affected by explanatory models of illness which are grounded in culturally defined systems of meanings given to illness experiences (Patel,1995).

5. Cues to Action

Even when a patient has developed a perception about his/her health, there usually are triggers that turn this into action. From a communication viewpoint uncovering what triggered the patient to attend is very important. The media, a relative, an overheard conversation, a reminder letter – the possible triggers are varied. The trigger may increase the patient's perception of susceptibility to a disease, its seriousness, increased benefits, decreased disadvantages and barriers, increase motivation to change, or convince the patient that they may in fact be able to make any required action.

Operational definition of Terms

Perceived barriers this refers to those barriers which exist for an individual and hinder him/her from seeking professional help when they have psychiatric problem.

Mental health service is the means by which effective interventions of mental health are delivered. The way this service is organized has an important bearing on its effectiveness and ultimately on whether it meets the main objectives of health policy and client satisfaction.

Mental health service utilization (MHSU) is the means by which an individual with a mental health problem seeks professional help can be either for treatment or counseling or any other mental health related help.

A traditional healer is defined by the World Health Organization as "someone who is recognized by the community in which he lives as competent to provide health care by using vegetables, animal and mineral substances, and certain other methods based on social, cultural and religious background as well as the prevailing knowledge, attitudes and beliefs regarding physical, mental and social well-being and the causation of disease and disability in the community (Pretorius, 2007).

Household refers to those individuals (whether extended or nuclear family) who are living together in the same house and who share their basic needs.

CHAPTER TWO: LITERATURE REVIEW

Perceived barriers to mental health service utilization are factors that increase risks for mental health disorders, worsen their course or impact, or lead to inefficient use of health care or societal resources (Wells et al., 2002).

Consistently across cultures mental health has been a low priority in health systems (Eisenberg, 1997). Two-thirds of the world's population live in countries that spend less than 1% of their total public sector health care budget on mental health services (including 15 out of the 19 countries in Africa for which data were reported) (WHO, 2001a). This is despite the fact that mental health problems account for at least 12% of the global burden of disease, a proportion that is predicted to increase to 15% by 2020 (Murray and Lopez, 1996). Resource insufficiency has been identified as a key barrier to improving mental health practice and policy (Knapp et al., 2006).

Mental disorders account for 22% of the total burden of disease in established market economies (Murray & Lopez, 1996) and yet less than one-third of people with mental disorders consult and even fewer receive the effective treatments that are available (Andrews & Henderson, 2000)

The following are some perceived barriers as related to mental health service utilization: Economic barriers, information barriers, limited evidence base, lack of evidence based practice, insufficiency of resources, poor economic conditions, low priority by political leaders and policy makers, low willingness/ability to pay, poor stewardship, inequitable resource distribution, concentration in urban areas of mental health services and professionals, highly institutionalized services and neglect of particular disorders, resource inappropriateness, services that do not match needs and the dominance of a few large institutions are other important reasons.

Stigma and Discrimination

The Mental Health Global Action Programme (2002) stressed that stigma and discrimination are further perpetuated by inaccurate information about mental disorders, such as the notions that people with mental disorders are often violent or bewitched in someway, or that mental disorders are untreatable. Felt mental illness related stigma has been found to be relatively high (53%) among patients attending the psychiatric unit at the Muhimbili National Hospital (Philip, 2003).

Lack of access to effective treatments, and provision of care in isolated mental asylums serve to prolong these falsehoods. People with mental health problems may be unwilling to seek treatment due to stigma, ignorance, cultural considerations and low personal incomes. The impact of stigma was investigated among 100 Moroccan families of patients with schizophrenia whilst simultaneously exploring their knowledge of the illness (Kadri et al., 2004). Stigma associated with schizophrenia severely affected 86.7% of family members' lives, 72% suffered from psychological problems, sleep disturbances, relationship difficulties and reduced quality of life. Results found that families were disadvantaged by others due to distrust (15%), mockery (29%) and maltreatment (41%). Approximately 34% of the 100 families stated that friends and neighbors avoided them whilst 29% said of people were afraid of socializing with them. Stigma in mental health care populations including patient, family relatives and community awareness on the stigma related to mental illness is likely to have an impact on willingness to seek mental health treatment (Philip, 2003).

Services accessibility

Surveys by the WHO World Mental Health Survey Consortium (2004) estimated that 36% to 50% of people with serious mental illness in higher income countries and 70% to 85% in low income countries had received no treatment in the previous 12 months (Kohn et al., 2003). Results from a demonstration community mental health project that integrated mental health into the primary health care system in four sites – two in

Bangalore, India and two in Rawalpindi, Pakistan – suggest that cost of care was a barrier to access for between 22% and 76% of people at the start of the programme. As people live longer and populations get older, the number of people with mental disorders/illness will increase over the next few decades. These trends indicate that the burden will significantly increase in the future. The burden of diseases increases, if there is no intervention. Failure to reduce the number of cases will lead to poor productivity in the community.

The WHO World Mental Health Survey Consortium (2004) also found that the majority of people in treatment in most of countries were sub threshold cases. It was found that many people with sub threshold mental disorders are treated while many with serious disorders are not. Problems concerning the allocation of resources and the selection and distribution of services are even more evident in low income countries that face civil and political unrest (WHO, 2003). In these situations, the need to prevent fragmentation of services, to ensure that people with acute emotional distress are able to access psychological first aid, and to maintain basic treatment for people with pre-existing mental disorders is of paramount importance.

Access to health care is a major concern in Tanzania (Kilonzo & Simmons, 1998). Individuals with mental illness may face greater access problems than the general population. The presence of mental illness may exacerbate underlying medical conditions through non-compliance with treatment, and the ramifications of untreated chronic health conditions such as heart disease, HIV/AIDS, diabetes and cancer can accelerate the spread or severity of the disease or cause premature death (World Health Organization [WHO]c, 2001).

Service Affordability

In countries with high unemployment, improvement in a person's symptoms may entail transferring from disability benefits to unemployment status, with any associated loss of benefit acting as a disincentive to recovery (Whiteford, 2001). If a country has less than

one psychiatrist per million population, as in most of the Africa region, or if there are almost no psychologists or other staff trained in some of the psychosocial interventions for which there is good evidence of effectiveness and cost-effectiveness in better resourced health systems, even a dramatic increase in mental health funding may still not lead to immediately improved access to suitable services. This supply inelasticity barrier – which may be only a question of time delay, but no less serious for that – could be quite acute in some mental health systems (Kohn et al., 2006). Some of the investments in mental hospitals are 'sunk costs', in the sense that they have little value in any alternative use, which might prove to be an economic barrier to the replacement of the old hospitals with more suitable community-based care. The high prevalence of psychiatric disorders worldwide indicates an enormous need for mental health services. Patients with mental disorders often do not seek professional help. It has been estimated that between one-third and two-thirds of serious cases of psychiatric disorders worldwide receive no treatment (Kessler, 2000).

In Tanzania the prevalence rate of common mental disorders for those attending primary health care is reported to be 24% and for those consulting traditional healers was found to be 48% (Ngoma, 2003). A population-based study in Zanzibar, one of the two political units of the United Republic of Tanzania, reported a prevalence rate of 0.55% (5.5/1000 population) of mental disorders with the overall prevalence rate for mental disorders about equal for males 0.54% (5.4/1000) and females 0.56% (5.6/1000) (Bondestam et al., 1990). In Tanzania, though public mental health services are provided at no cost to patients, medication stock outs in public health facilities are not uncommon and a large proportion of patients are unable to purchase medication on the open market (Ndosi, 2005).

Availability of service

In Tanzania the number of mental health workers to cope with the existing large numbers of mental patients is profoundly limited. Tanzania is one of the poorest countries in Africa its population is approximately 38,000,000 people (The World Bank; 2003). Mental health resources are almost not available. In fact Tanzania has produced a total of 25 psychiatrists, of whom 11 are working in the Tanzanian public service, 2 work in

private practice, 9 are abroad and 2 have retired. In addition, 1000 mental health nurses have been trained, but only 460 are currently deployed in the mental health services (Mbatia et al., 2009).

Most mental health workers are working in Muhimbili National Hospital in Dar es Salaam (Njenga 2002; Ngoma, 2003). Most of mental health professionals are clustered in towns and leave the entire village population without mental health workers and therefore mental health services (Mbatia and Kilonzo, 1999). Traditional healers are becoming less common in the rural areas but are available in the cities where they presumably can earn more money (Ngoma, 2003). Also, the herbs they use are becoming less available apart from in a few areas of natural forest. Christian missionary activity has also done much damage to traditional healing. Belief in witchcraft, which serves a variety of social functions and personal defenses, is bound to emerge in psychotherapy with individuals from a culture that holds such beliefs; endeavoring to understand it can open up new therapeutic possibilities (Ndosi et al., 1986). A study from Chile suggested that the lack of access to mental health care has driven far too many vulnerable people into homelessness and prisons (Goldman, 1999). Tanzania is one of the poorest countries in Africa its population is approximately 38,000,000 people (The World Bank; 2003). Mental health resources are almost not available. In fact Tanzania has produced a total of 25 psychiatrists, of whom 11 are working in the Tanzanian public service, 2 work in private practice, 9 are abroad and 2 have retired. In addition, 1000 mental health nurses have been trained, but only 460 are currently deployed in the mental health services (Mbatia et al., 2009).

Perceived Barriers

A study in US indicated that approximately 85% of youths with psychiatric disorders reported at least one perceived barrier to services (Abraham & Paskar, 2008). Most common was the belief that problems would go away without help. Generally, attitudes toward services were remarkably similar across sex and race. Among females, significantly more youth with past service use or referral to services reported this barrier

than did youths who had never received or been referred to services. Among males, significantly more youth who had been referred, but never received, services were unsure about where to go for help than youths with past service use. Significantly more youths with no past service use or referrals were concerned about the cost of services than youths with past service use (Abraham, 2008). Tze-pin et al., (2008) suggested that self-rated mental health status is a valid indicator of mental health status and use of health services. An individual's perception of the mental illness symptoms can be used as measure of MHSU. This perception may include difficulties or delays in obtaining care and problems getting care as soon as needed.

Most Africans believe that traditional healers "fill a treatment gap" left by western medicine (Nelson, 2006). A study conducted in two regions (Morogoro and Kilimanjaro) in Tanzania reported that very few patients with malaria would see a traditional healer first, while quite a lot of patients with psychiatric problems would turn to a traditional healer before they go to the health center or dispensary (Kempinski, 1991).

A study done among immigrant groups in the US indicated substantial under-utilization of mental health services with the most important factors being the interpretation of psychological symptoms, the desire to deal with personal problems on one's own or within the family and the perception that health care professionals who understand the immigrants' cultural background are not available (Kirmeyer et al., 2008). Youth who believe their problems can be solved without assistance are unlikely to cooperate with referrals or to independently seek mental health services. Service providers must be sensitive to clients' perceived barriers to mental health services and work to reduce negative perceptions of services (Abraham, 2008).

This study aimed at determining the perceived barriers to mental health services utilization among individuals as well as the community at large so as to bridge the gap between community based care services and the institutional based mental health services.

CHAPTER THREE: METHODOLOGY

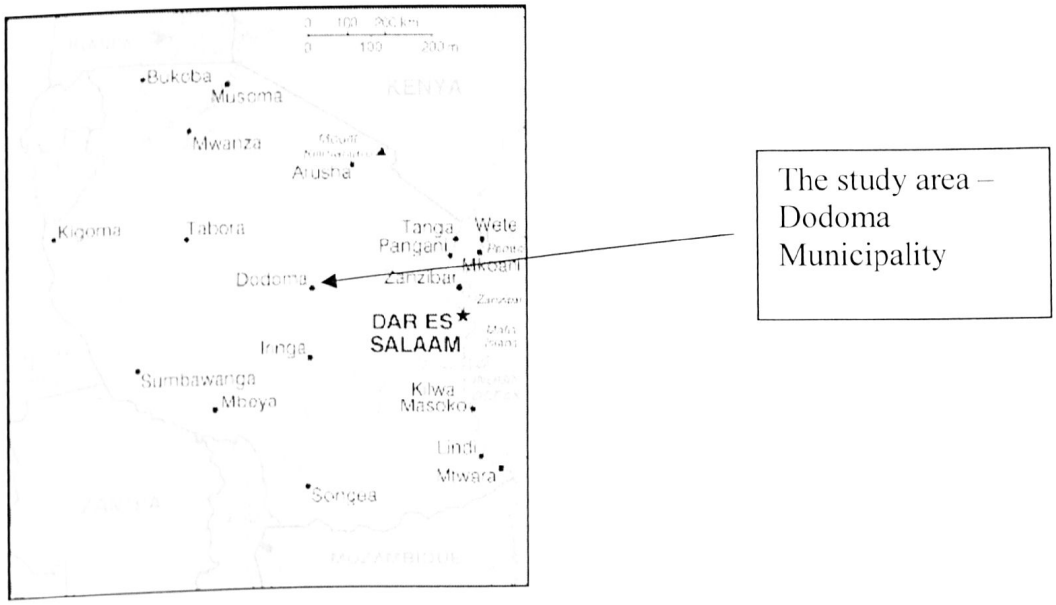
Study area

This study was conducted in Dodoma municipality. This municipality is located at the center of Tanzania and the centre of Dodoma region. It is the capital of the United Republic of Tanzania and substantive seat of the Union Parliament. The region of Dodoma Municipality covers 2,769 square kilometers of which 625 kilometers are urbanized and the rest are rural. It is 486 kilometers west of Dar es Salaam, Tanzania's premier port, commercial and industrial city. The municipality has 4 divisions, 30 wards, 40 villages and 70 mitaa /streets. The current projected population is about 476,766. The total number of households is 76,112 with an average household size of 5.8. The average population growth rate is 3.3. There are 238,383 people in the rural areas and 238,383 people in urban area (National Buaral Statistics, 2002).

The reasons for choosing this area are because this is the only area in Tanzania with formal mental health services. The second reason is that it has both the rural and urban populations which represent the reality of most Tanzania.

Figure 2

Map of Tanzania with arrows indicating a study area.



Study Design

Concurrent triangulation mixed methods model was used. Mixed methods research is defined as the class of research where the researcher mixes or combines quantitative or qualitative research techniques, methods, approaches, concepts or language into a single study (Creswell, 2003). Denzin (1978) defined triangulation as the use of different data sources and data collection methods in studying the same phenomenon.

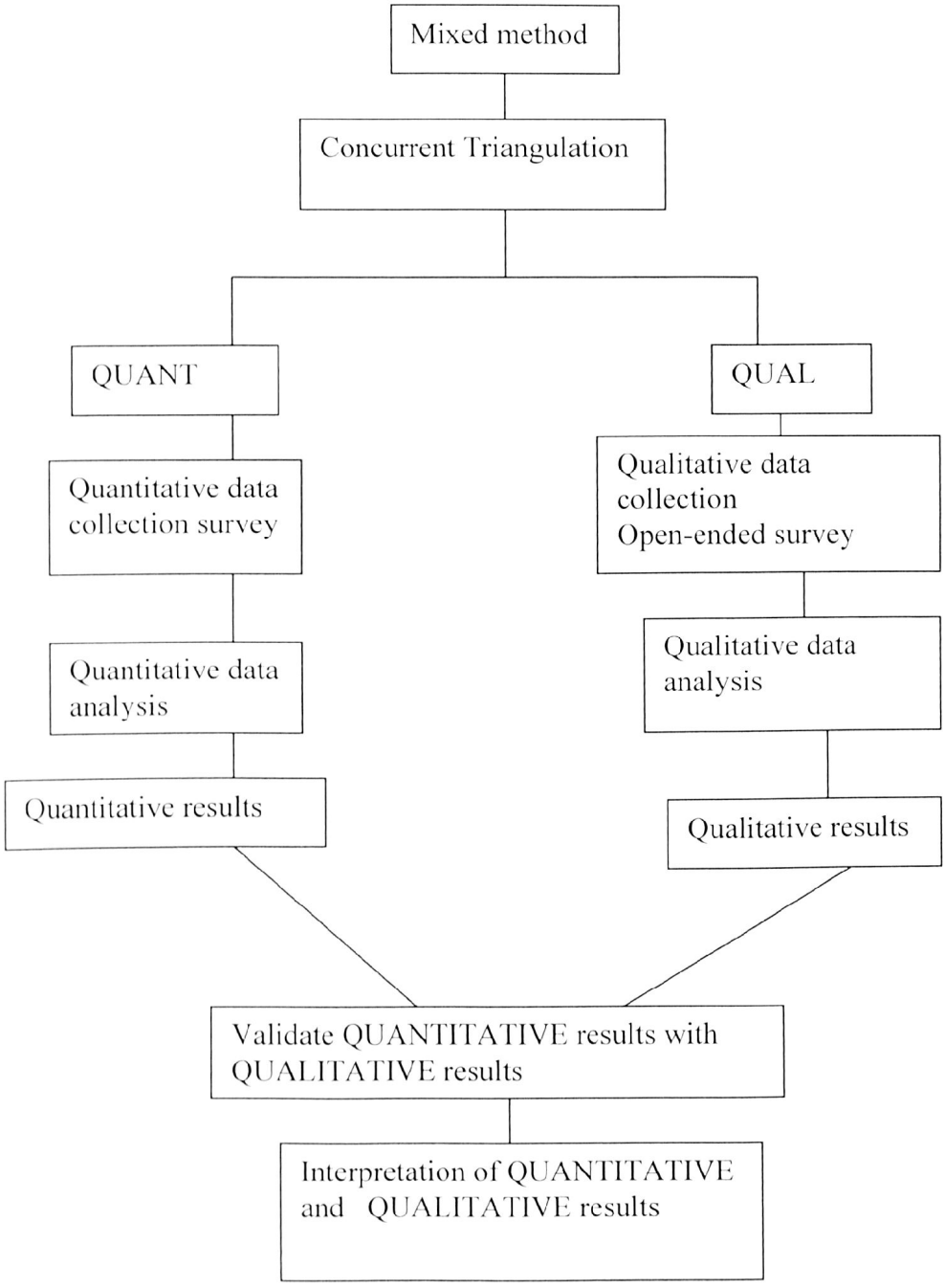
The methodology has become more common, cited and used by an ever increasing number of researchers in recent years, far from its limited, controversial and obscure beginnings in the late fifties (Rocco et al., 2003). The recent increase in its popularity is in its "pluralism or eclecticism, which frequently results in superior research" as compared to mono-method research designs (Johnson & Onwuegbuzie, 2004). Advocates, especially mixed method pragmatists, urge "researchers to...explore the use of alternative methodologies...if the ultimate aim is to gain knowledge about the world then one needs to do this in the most valid way possible" (Mangan, Lalwani & Gardner, 2004). The strength of the design is in the use of two or more modes of inquiry or techniques, to gain a higher level of validity or corroboration or to limit or find fault, possibly limited or missed completely in a single, mono-method study.

This study used concurrent triangulation mixed method design with the intent to gather both quantitative and qualitative data at the same time and to integrate the two forms of data to best understand the research problem (See Figure 3) (Teshakkori & Teddlie, 1998). This model typically gives equal priority to quantitative and qualitative data and analysis, involves concurrent or simultaneous collection of data, and integrates both quantitative and qualitative data in the results, analysis, and conclusion phases.

A typical structure for a triangulation study is to have separate sections on quantitative data collection and qualitative data collection, as well as separate sections on quantitative data analysis and qualitative data analysis. The investigators then provide a results, discussion, or conclusion section in which they discuss the results of both analyses.

Figure 3

The structure for concurrent mixed method study design.



(Adapted from Creswell & Plano-Clark, 2007)

Typically investigators present the two forms of results as supporting or conflicting evidence for results, or they might transform one type of data into another form (quantitatively count the codes from qualitative results) to converge results (Creswell, 2003).

This method of data collection recognizes that there are weaknesses inherent in each type of data. By combining both quantitative and qualitative data, researchers can neutralize the weaknesses involved in each single method of data collection (Creswell, 2003). Another advantage of the mixed methods approach is that results from one method can help develop or inform the other method. Mixed methods allow research to be conducted using both open and closed ended questions. Also, multiple forms of data are collected and statistical and text analyses can be performed. By combining these methods, the researcher can provide a comprehensive analysis of the research problem (Creswell, 2003).

Quantitative approach

The design used in the present study was descriptive cross- sectional. This helped the researcher to determine the magnitude of the perceived barriers of MHSU and assess the relationship with demographic characteristics of participants.

Qualitative approach

Descriptive phenomenology design was used to obtain information from individuals living with individuals with mental illness regarding their perception and experience on mental illness and mental health service utilization.

Phenomenology is the study of lived experience (Moustakas, 1994; Marshall & Rossman, 1995; Creswell, 1998; Crotty, 1998; Patton, 2002). "Phenomenology can be referred to either as the subject matter of inquiry or as the methodology of the study (Marshall & Rossman, 1995). Lived experience can consist of many different things. For example, Patton (2002) states that this experience can be emotions, culture, relationships, jobs, programs, marriage, taboos and food. This sounds simple enough. However, the process

of phenomenological research is quite in-depth and requires extensive investigation to provide the rigor and merit for a trustworthy analysis.

The study used triangulation in gathering data including survey questionnaires, in-depth interviews and focused group discussions. This approach helped the investigator to get individual and collective understanding of the perception and experience of the problem. Triangulation within method involves cross checking for internal consistence or reliability, while between methods triangulation tests the degree of external validity. In this study in-depth interview, direct -observation, focused group discussions and field notes were used as methods for gathering information.

Study population/Informants

The study population was adults aged 18 years and above, residents of Dodoma Municipality for at least one year. The exclusion criteria apart from age and length of residence included: 1) persons unable to answer questions because of physical and mental impediments 2) personal reasons such as being away for a long period of time.

Quantitative

Sample size and sample size calculation.

The quantitative sample size was calculated by using the following formula

$$N = \frac{Z^2 P (100-P)}{\varepsilon^2} = \frac{z^2 P (100\% - P)}{\varepsilon^2}$$

$$N = \frac{3.84 \times 10 \times (100 - 10)}{5 \times 5} = 138 + 10\% = 152$$

The sample size will be 152 participants

Where by, N = the sample size.

In Tanzania there is no established prevalence for mental disorders from the general population as confirmed by Professor, G. Kilonzo, 12/06/2009 (personal communication). This study adopted the prevalence from WHO Report, 2001. The point

prevalence of mental illness in the adult population at any given time is about 10% (WHO, 2001).

P = is the prevalence of the adults with mental health problem = 10%

Z = confidence interval. The selected for this study is 95%% confidence

ε = is the marginal level which is 5%

Sampling techniques

Quantitative

The sampling method used was multiple stage sampling technique. Four stage random sampling was used. In the first stage, all 30 wards of Dodoma municipality were included and four wards, two from urban and another two from the rural, were selected randomly by using a random number table. Then in the second stage, from the list of the villages in each of these four wards, random selection was done by using the random number table so as to obtain two villages for rural and two streets/mitaa for urban. In the third stage, in each of these two villages and two streets the households were selected by simple random sampling by using a random number table. The fourth stage in each household the filter questionnaires with a list of household members were used so as to obtain adults of 18 years and above. Only one adult from the list of adults in a filter questionnaire in the household was selected randomly by lottery method so as to be included in the study if they met inclusion criteria.

Qualitative

Purposive sampling method was used in obtaining a qualitative sample. Purposive sampling has been described as the method of sampling which is based on appropriate selecting of a sample on the basis of knowledge of a population, its elements and the purpose of the study (Dahlgren, Emmelin & Winkvist, 2004).

Purposeful sampling was used in this study whereby one adult from a household with individuals with mental illness was selected and interviewed. This involved a two-stage process: sorting and saturation. Saturation is data adequacy (Morse, 1995). In this study,

sampling was continued until saturation point, or the failure to obtain new information from informants was reached. Approximately 14 participants were expected to be sufficient. During interview, the saturation point reached after interviewing ten participants.

Data collection techniques

Quantitative

The method for data collection was face-to-face interviews using semi-structured survey questionnaire (see appendix A & B). The recruited adults who met inclusion criteria were interviewed after obtaining individual informed consent (see appendix E & F for consent form).

Qualitative approach

Triangulation of methods was used. These methods included:

In-depth interviews

Interviews used to gather data on background information, including knowledge, attitude, perception and practice on the use of mental health services from people living with individuals with mental illness within the same household. Information was also solicited concerning demographic and socio-economic and cultural information, general assessment of utilization of mental health services, reasons for abandonment of treatment, motivation aspect of treatment, opinion on the quality of care provided and how to improve mental health services.

Observation

Direct open-observation on the field and participants was done to control for discrepancy between the participant's responses of the actual observed situations. The non-verbal cues were taken into consideration for interpretation of its meaning.

Focus group discussions (FGD)

Three FGD with 6-12 adults aged 18 years and above were conducted by the researcher. The first FGD was conducted to community leaders, the second FGD with mental health workers and the third with people living with individuals with mental illness in the same household. These FGDs were conducted to explore community knowledge, beliefs, attitude and behavior on the use of mental health services, social support to individuals with mental illness and to obtain suggestions/opinions on improving mental health services.

Data collection tools

Quantitative

For collection of data a semi-structured questionnaire was used (see appendix C & D).

A structured interview schedule was administered to all eligible participants. The questionnaire contained responses requiring the following participant's information:

i) Socio-demographic variables and participants tracing information

Demographic variables included age, sex, place of residence, level of education, marital status, religion, and current occupation.

ii) Socio-economic status

Socioeconomic status information was collected using household assets, housing characteristics and income satisfaction. Household characteristics included; presence of electricity in the home, Household durable consumer goods included having a radio, telephone, mobile phone, television, refrigerator, bicycle, motorcycle and a private car.

iii) Attitude, awareness and belief towards mental illness

The attitude was assessed through multiple response questions which required participant's feelings on risk of any individual to get mental illness and perceived choice of treatment by respondent. The Likert scale rated from 1 to 4 was used. One being strongly disagrees, moderately disagree (2), moderately agree (3) and strongly agree (4).

The awareness and source of information was required. The source of information included multiple responses multiple choices in which included the broadcasting media, documented media, and community event, information from the community member and

health workers. Belief on the perceived cause of mental illness was also included multiple responses which included spiritual care, herbalist, traditional healers, health facilities, punishing individuals with mental illness and others in accordance to participants experience.

iv) Decision making and barriers.

The question required participant to circle only one person in the given responses who has greatest influence in decision making. These included father, mother, client himself or herself, guardian, other relatives village leaders others or don't know.

The participant were required to respond from the multiple responses if they know any individual who failed to seek mental health services due the mentioned reasons; including long distance from facility, stigma from others, unaffordable cost, poor services at the facility, lack of skilled staff, lack of transport, discrimination and don't know where to seek mental health services. The frequency of each response was analyzed and was compared with MHSU experiences.

Qualitative

Qualitative data were collected through open-ended or semi structured interview questionnaire, field observations of practice and audiotapes. The information in the quantitative part was validated by the qualitative information which required participant's explanation on their responses.

Quality control

Each participant was required to fill the questionnaire anonymously. Three research assistants (RA) who are fluent in Swahili attended pre field-work training. Each was required to successfully complete a three days training course that included mock interviews. RAs were closely supervised by the principal investigator (PI) who systematically revisited randomly chosen households to check the reliability of the information. The researcher did not visit the selected households before initiation of the field work so as to ascertain *a priori* if any of the residents did not meet the criteria of the study (Lewis et al, 1992). Data collection was carried out in January- March, 2009.

Pre- testing of data collection tools

The study instrument was tested for validity, reliability and feasibility by using a pilot study of 10 randomly selected households in a village in Dodoma municipality which was excluded during actual data collection. Results of the pilot study were used only to modify content and wording of the questionnaire and were excluded during main data analysis.

Data analysis and interpretation

Double data entry using EPI- Info 2002 statistical software package (CDC Atlanta, Georgia, USA) were used. Data were analyzed in relation to the objectives of the study.

The objectives of the study were:

1. To get a picture of the population under study following variables were determined:
    a. Name and location of the place of residence;
    b. Sex of the participants;
    c. Age of the participants;
    d. level of education
    e. employment status
    f. satisfaction of income
    g. occupation
2. To explore perceptions towards mental illness among adults in Dodoma municipality.
    a. Belief about causes of mental illness
    b. Belief about individual's susceptibility to get mental illness
    c. Perception towards caring an individual with mental illness
    d. Perception of professional mental health care
3. To determine the association between access and barriers to utilization of mental health services
    a. Place of residence

b. Perceived barriers to mental health service utilization

4. To examine the decision-making process of the community on mental health service utilization.
    a. Individuals Treatment option for caring individuals with mental illness
    b. A person who has great influence for decision making for opting type of care of an individual with mental illness in the household.

Descriptive statistics was depicted using absolute numbers, simple percentages, range, and measures of central tendency (mean, median) as appropriate. Odds ratios were used to compare the probabilities between two groups in a single cohort. All tests of hypothesis were two-tailed with a type 1 error rate fixed at 5%. Cross tabulation of the independent and dependent variables was done to indicate their association. Bar charts, graphs and histograms were used to present the findings. The confidence interval of .95 was used to assess statistical significance as a p level of .05 (Spencer & Chen, 2004).

Quantitative data analysis

Outcome measure (mental health service utilization).

As an outcome measure (dependent variable), mental health service utilization was a dichotomous variable. Chi square statistics were used to assess associations with non continuous variables of interest assessed in the study.

Predictors (independent) measures

Demographic characteristics

During data analysis of demographic variables, age in years was grouped into six categories; youth (15-24), young adult (25-34), adult (35-44), middle adult (45-54), old adult (55-64) and elders (> 65). Sex was dichotomized (as male and female) and level of education was measured as four categories (never attended school (Nil) completed primary education (Primary), completed form four and/ six (Secondary), Completed some colleges (Tertiary). Both occupation and job satisfaction were dichotomized as unemployed or employed and satisfied or unsatisfied respectively.

Belief towards mental illness

Belief of individual's susceptibility of getting mental illness was dichotomized as yes or no. Belief on the best treatment option of mental illness was also included in multiple responses which included spiritual care, herbalist, traditional healers, health facilities, punishing individuals with mental illness and others in accordance to participant's experience. In these multiple response questions participants were required to choose what fits in accordance to their belief. Each response was dichotomized as yes or no its frequency were determined.

Attitude

Attitude towards health mental health service utilization was assessed. Individuals were required to give his feeling on cure given by professional mental health professionals if she/he believes he can be cured by them. The Likert scale rated from 1 to 4 was used. One being strongly disagrees, moderately disagree (2), moderately agree (3) and strongly agree (4).

Awareness

The awareness and source of information was required. The source of information included multiple responses multiple choices in which included the broadcasting media, documented media, and community event, information from the community member and health workers. The frequency were determined and reported.

iv) Decision making and barriers.

The question required participant to circle only one option of a person in the given responses who has greatest influence in decision making. These included father, mother, client himself or herself, guardian, other relatives village leaders others or don't know.

The participant were required to respond from the multiple responses if they know any individual who failed to seek mental health services due the mentioned reasons; including long distance from facility, stigma from others, unaffordable cost, poor services at the facility, lack of skilled staff, lack of transport, discrimination and don't know where to seek mental health services. The frequency of each response was analyzed and was compared with MHSU experiences.

Univariate analysis

Logistical regression model were used to determine the significance of binary variables. Lifetime incidence of psychiatric disorders, demographic characteristics, socioeconomic status, stress indicators, and barriers to service use was used in the logistic regression models. Odds ratios and 95% confidence intervals, and *p* values are reported. Socio-demographic variables with $p < 0.25$ were identified for inclusion in multivariate analysis as a screening criterion for selection of candidate factor for multivariate analysis (Mickey & Greenland, 1989). Use of p value of 0.25 shown that the use of the traditional *p* value of 0.05 on univariate analysis often fails to identify the factors that are known to be important during multivariate analysis (Mickey & Greenland, 1989).

Multivariate analysis

Hierarchical logistic regression analysis was conducted to determine the strengths of associations of socio- demographic measures and barriers to mental health service utilization. Mental health services utilization was regressed on perceived barriers using a backwards selection approach. Adjusting for potential socio-demographic risk factors with *p*- values of < 0.25 in univariate analysis was achieved by forced entry of the variables in an initial block of the regression model and in this way the effects of the socio-demographic variables on adherence was removed to allow determination solely effects due to perceived barriers. The outcome of mental health service use was dichotomized into respondent response as users or non users. Possible interaction effects were also explored. EPI- Info 2002 statistical software package (CDC Atlanta, Georgia, USA) were used in data analysis.

To test the hypothesis, that attitude is associated with mental health service use, binomial logistics regressions were used to examine the association between perceived barriers, causes of mental illness and MHSU.

Qualitative approach

Content Data analysis

Content analysis method was used to analyze the collected data. Holsti (1969) offers a broad definition of content analysis, a technique for making inferences by objectively and

systematically identifying specified characteristics of messages. Neuendorf (2002) offers a six-part definition of content analysis, "Content analysis is an in-depth analysis using quantitative or qualitative techniques, of messages using a scientific method (including attention to objectivity-inter-subjectivity, a priori design, reliability, validity, generalizability, replicability, and hypothesis testing) and is not limited as to the types of variables that may be measured or the context in which the messages are created or presented".

Prior to the analysis the tape-recorded interview was transcribed verbatim in Swahili. The non-verbal cues also were taken into account during transcription. The interviews were read several times to provide an overview of the material. The subsequent analyses followed an iterative cycle that includes division of the texts into meaning units, which was condensed from the original text while still preserving the core meaning. The condensed version was coded and labeled. Both the latent and manifest content of analyses were reported. Findings were taken back to some informants to compare if they related accurately to their reported experience. The changes obtained from informants were included into the final report.

The following example illustrates the use of concepts and analysis procedures for interview text based on interviews and observations. The processes of analysis are described and shown in Fig. Even if these descriptions point to a linear process, it is important to bear in mind that the process of analysis involved a back and forth movement between the whole and parts of the text.

Figure 4
An Example Illustrating Unit of Analysis, Meaning Unit, Codes, Categories and a Theme from Content Analysis of Narratives about Perceived Barriers to Mental Health Service Utilization in Dodoma Municipality, 2009.

Unit of analysis	Meaning unit	Condensed meaning unit	Codes	Category	Theme
R: Do you ever suffered from mental illness. **P:** yes, I was mental ill for past ten years. Currently I'm caring my daughter who is mentally ill	I have ever suffered from mental illness and I am caring for my daughter with mental illness	I ever suffered and cared for mental illness.	Suffered and cared mental illness.	Experience with mental illness	Perceived causes of mental illness.
R: What are the causes of mental illness **P:** causes are many some are known to us some not but in our area bewitchment, life stress, financial difficulties.	Causes for mental illness are bewitchment, life stress, financial difficulties, drug abuse life stresses and some are unknown	The causes for mental illness can be biological or psychological, sociological causes but still some are unknown	Causes of mental illness Uncertainty	Causes of mental illness in according to individuals perceptions	

Key: R – Researher , P- Participant

Ethical considerations

Ethical approval to conduct the study was obtained from Muhimbili University of Allied Health Sciences (MUHAS) Ethical and Publication Committee before starting the field research field (see Appendix G). Permission and approval was also obtained from the Dodoma Municipal Executive Director (see Appendix H). Informed consent was obtained from each participant. In order to allow them to make an informed choice, informed consent included description of the aim and advantages of the study, the foreseeable and anticipated risks, care for psychological trauma that could result from the study and its duration were stipulated. The participants were free to withdraw from the study without any penalty. The participants was reassured about confidentiality that only the researcher and research team will have access to the respondent questionnaire and the data after analysis will bear no participants name. Furthermore, to maintain privacy and confidentiality the answered questionnaire was kept and locked safely at a place where only the PI could have access.

CHAPTER FOUR: RESULTS

The mixed method design was used to summarize positive aspects of two approaches and produce a highly accurate data as each type complements a result from one type of a research with another one. In this study, the qualitative data was collected to validate quantitative data. This happened with the three broad categories which emerged in quantitative part; these were perceived causes of mental illness, preferred option for treatment and perceived barriers to mental health services utilization.

The validation happened with the following variables; perceived causes of mental illness included drug abuse, curse, witchcraft, evil spirits, interpersonal conflicts, poverty, inheritance and inheritance. In preferred option for mental illness treatment it included mental health facilities or professional care, traditional healers and no treatment. For the perceived barriers to mental health service utilization the following were identified; expenses, long distance, stigma lack of transport, unawareness, discrimination. In additional, more data emerged in the qualitative that was not addressed in the quantitative these included unknown causes to mental illness, lack of reliable transport and infrastructure for rural areas and lack of social support from relatives or community surrounding an individual with mental illness. This did not happen with the following variables; age, sex, lack of transport, stigma and awareness of mental illness. In additional, more data emerged in the qualitative that was not addressed in the quantitative. These included limited availability of mental health services, lack of enough skilled professionals in mental health, illiterate in the causes of mental illnesses and delay in decision making for seeking mental health help.

Perceived causes

The perceived causes were drug abuse, curse, witchcraft, evil spirits, interpersonal conflicts poverty, inheritance life stresses and unemployment. The most prominent causes for mental illness were drug abuse 92% (n=138), curse 75% (n=113), witchcraft 66% (n = 99) and evil spirits 64% (n = 96). Others causes were not relatively frequently mentioned.

Preferred option for treatment

In the treatment options were mental health facilities or professional care, traditional healers and some yet mentioned no treatment. Many participants preferred mental health professional care 93% (n = 142), and traditional healers 63% (n = 95).

Perceived barriers to MHSU

Several barriers were mention to MHSU these included, expenses, long distance, stigma, lack of transport, unawareness, discrimination, poor services, do not belief in professional care and lack of professionals. After adjusting for confounding factors unemployment, witchcraft and expenses were found to be highly significant barriers to mental health services utilization (p-value< 0.05).

QUANTITATIVE RESULTS

Social Demographic Data

The scheduled participants for quantitative interview were 152 and all of them were successfully administered the questionnaires. The 152 included 76 (50%) from the rural community and 76 (50%) from the urban community. Analysis (Table 1) showed 123 (81%) were 55 years old or less, 78 (51%) were males and 74 (49%) were females. The mean age (+SD) for rural population was 44 (±17) years for men and 35 (±13) years for women and for the urban population was 43 (±15) for men and 40 (±14) for women.

The majority of the respondents, 52.0% (79), were aged between 26 and 45 years. Fifty nine percent (90) of respondents had primary education, 27.0 % (41) had secondary education, and 4 (3.0%) had tertiary (post-secondary school) education. Eleven percent 11.0% (17) of the sample had no formal education. Twenty eight percent (42) of the respondents were either self employed in formal registered business or employee of certain government or non government organization, 72% (109) didn't have any kind of formal employment. Fifty three percent (80) individuals regardless of their employment statuses were satisfied with their income and 46% (69) were not satisfied. Among 152 interviewed persons, 75% (111) had a relative, a friend or a neighbor with mental illness the rest did not. Sixty eight percent (103) believed that any person has a probability of getting mental illness while the rest did not mention that believe.

Table 1
Social demographic data of respondents in Dodoma Municipality 2009 (n=152).

Variable	Percentage (number)	95%CI
Level of education		
Nil		
Primary	11 (17)	7-17
Secondary	59 (90)	51-67
Tertiary	27 (41)	20-35
	3 (4)	1-7
Sex		
Male	51 (78)	43-60
Female	49 (74)	40-57
Occupation		
Employed	28 (42)	21-36
Unemployed	72 (109)	64-79
Job satisfaction		
Satisfied	53 (80)	45-62
Unsatisfied	46 (69)	38-54
Belief of individual's risk of mentally illness		
Yes	68 (103)	60-75
No	27 (41)	20-35
Don't know	5 (8)	2-10
Have you a relative or a friend with mental illness?		
Yes	74 (111)	67-81
No	17 (26)	12-25
Don't know	8 (12)	4- 13

Table 2

Age Group Distribution by Number of Participants in Dodoma Municipality (n = 152), 2009

	15-24	**25-34**	**35-44**	**45-54**	**55-64**	**>65**
Male	8	21	17	14	11	7
Female	13	25	16	9	3	3
Total	**21**	**46**	**33**	**23**	**14**	**10**

Table 2 demonstrates that the majority of respondents were aged between 25-34 years. In age groups 15-24 and 25-35 females were more than males. In all other age-groups males were more than females.

Table 3

Belief that mental health cure through professional care is possible in relation to sex in Dodoma Municipality in 2009 (n=152).

	BELIEF IN PROFESIONAL MENTAL CARE		
SEX	**Yes**	**No**	**Total**
Male % (n)	59 (46)	41 (32)	100 (78)
Female % (n)	51 (38)	49 (36)	100 (74)
Total % (n)	55.3 (84)	44.7 (68)	100 (152)

Males were more likely to believe that mental illness can be cured through service offered by professionals (see Table 2). Odds ratio was 1.36, 95% CI: 0.72, 02.59. *Chi-square* was found to be 0.89, *p*-value was 0.34. This indicates that the difference was not statistically significant.

Table 4

Mental Health Service Utilization in Relation to Sex in Dodoma Municipality, 2009 (n=152).

	MENTAL HEALTH SERVICE UTILIZATION		
SEX	**Yes**	**No**	**Total**
Male %(n)	91 (71)	9 (7)	100 (78)
Female %(n)	96 (71)	4(3)	100 (74)
Total %(n)	93.4 (142)	6.6 (10)	100 (152)

The odds ratio was 0.43, 95% CI: 0.11, 1.72. Fisher exact test was used as expected cell value was less than 5 and 2 tiled *p*-value was found to be 0.33. This indicates that there was no significance difference between males and females in mental health services utilization for mental health care.

Table 5

Mental health service utilization in relation to place of residence in Dodoma municipality, 2009 (n=152).

	MENTAL HEALTH SERVICE UTILIZATION		
PLACE	**Yes**	**No**	**Total**
Urban %(n)	90 (69)	10(7)	1000 (76)
Rural	96 (73)	4 (3)	100(76)
Total	93.6 (142)	6.4(10)	100(152)

Analysis of Single Table was conduced and it was found that the odds ratio was 0.41, 95% CI 0.10, 1.63. *Chi-square* was found to be 1.70 and *p*-value was 0.19. This indicates that the difference is not statistically significant.

Table 5

The association between belief of mental health cure and place of residence (urban and rural) in Dodoma municipality, 2009 (n= 152).

	BELIEF OF CURE		
PLACE	**Yes**	**No**	**TOTAL**
Urban (n)	52	24	76
%	68	32	100
Rural (n)	32	44	76
%	42	58	100
TOTAL (n)	84	68	152
%	55	45	100

The odds ratio (OR) was found to be 2.98, 95% CI: 1.53, 5.79. *Chi-square* was found to be 10.57 and p-vale was 0.001. This indicates that there was statistical significance difference between urban and rural. The urban respondents were three times more likely to believe that there is possibility to be cured by mental health professional.

Table 7

Belief of drug abuse as cause for mental illness and its relationship to mental health service utilization in Dodoma municipality, 2009 (n=151).

	MENTAL HEALTH SERVICE UTILIZATION		
DRUG ABUSE CAUSATION	**Yes**	**No**	**Total**
Yes	94 (130)	6 (8)	100 (138)
No	84 (11)	16(2)	100 (13)
Total	93.4 (141)	6.6 (10)	100 (151)

Out of 152 individuals, one did not respond to drug abuse response.

The odds ratio was found to be 2.95 95% CI: 0.56, 15.65. *Fisher exact test* was used because the expected cell values were less than 5. The *Fisher exact test* 2 tailed *p*-values was 0.32. This indicates that the difference between respondents who perceived drug abuse as a cause of mental illness and those who did not, was statistically insignificant.

Table 8

Witchcraft as cause for mental illness and belief of cure by mental health profession in Dodoma municipality, 2009 (n=152).

		BELIEF OF CURE BY MENTAL HEALTH PROFESSION		
BELIEVE IN WITCHCRAFT		**Yes**	**No**	**Total**
Yes	**%(n)**	55 (54)	45 (45)	100 (99)
No	**%(n)**	56 (30)	44 (23)	100 (53)
Total	**%(n)**	55.3 (84)	44.7 (68)	100 (152)

The belief that mental illness can be cured by mental health professionals was not significantly different between those who believe witchcraft can cause mental illness and by those who do not. The odds ratio was 0.92, 95% CI: 0.44, 1.9 and chi-*square* was 0.06 *and* p-value was found to be 0.81 which is not a statistically significant.

Table 9

Believe in curse as a causation of mental illness by mental health services utilization in Dodoma Municipality, 2009 (n=152).

	MENTAL HEALTH SERVICE UTILIZATION		
BELIEVE IN CURSE AS CAUSATION	**Yes**	**No**	**Total**
Yes	95 (107)	5 (6)	100 (113)
No	90 (35)	10 (4)	100 (39)
Total	93.4 (142)	6.6 (10)	100(152)

The relationship between believe of curse as causation of mental illness and whether it effects utilization of mental health services was determined (see Table 8). The odds ratio was found to be 2.04, 95% CI 0.54, 7.64. This is statistically not significant.

Table 10

Association between expenses as a barrier to mental health service use and option to mental health services utilization in Dodoma Municipality, 2009 (n=152).

	MENTAL HEALTH SERVICE UTILIZATION		
EXPENSES	**Yes**	**No**	**Total**
Yes	93 (114)	7 (8)	100 (122)
No	93 (28)	7(2)	100 (30)
Total	93.4(142)	6.6(10)	100 (152)

The association between expenses and mental health service utilization was determined and was found that the odds ratio was 1.02, 95% CI: 0.20, 5.06. This confirms that there is no statistical difference between those who perceive expenses as barrier and those who did not.

Table 11

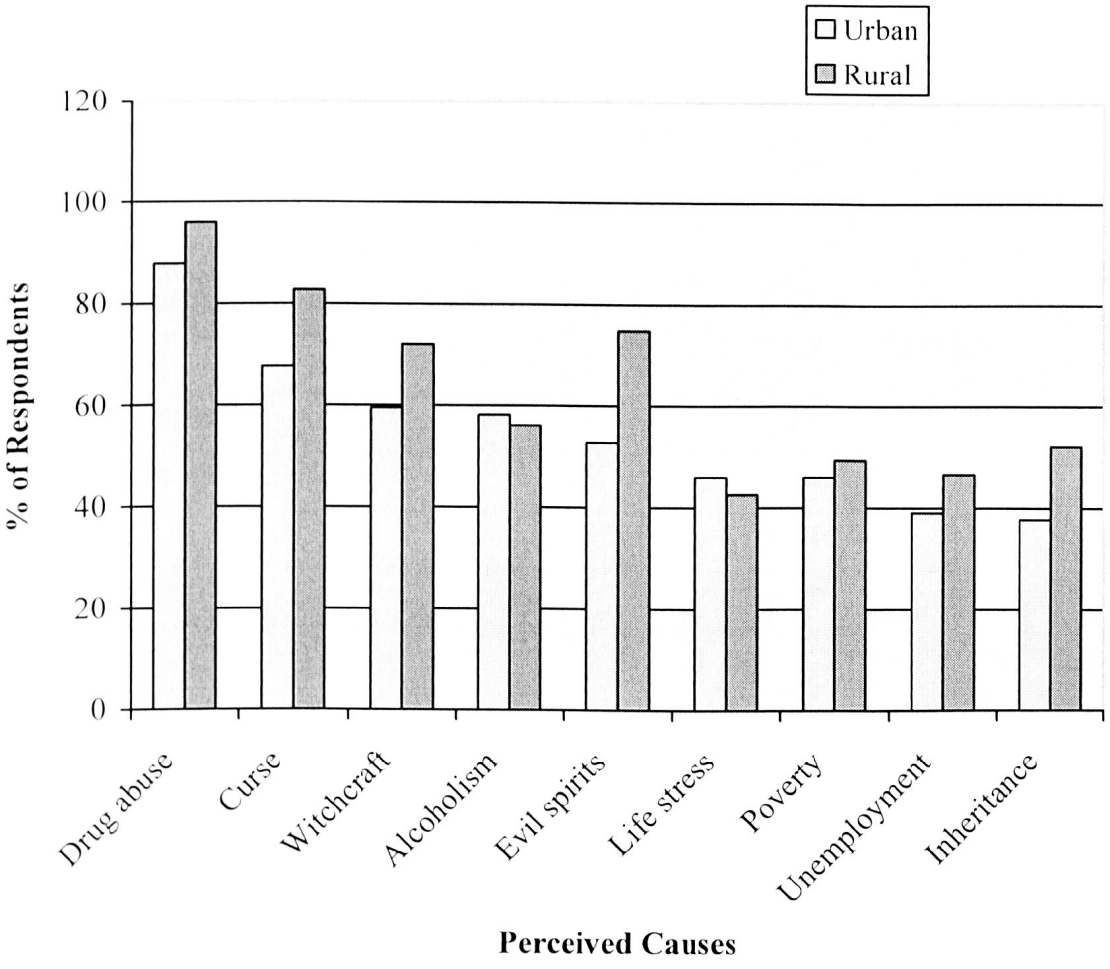
Perceived causes of mental illness in Dodoma municipality, 2009 (n=152).

VARIABLE	NO. OF COUNTS	PERCENTAGE	95% CI	Ranking
Drug abuse	138	91.95	86-95	1
Curse	113	75.17	67-81	2
Witch craft	99	65.77	57-73	3
Evil spirits	96	63.76	55-71	4
Marital conflicts	74	48.68	41-57	5
Poverty	71	47.65	39-55	6
Inheritance	68	44.97	37-53	7
Life stresses	67	44.30	36-53	8
Unemployment	64	42.95	34-50	9

Multiple responses were recorded. Percentages represent proportions reported by the whole sample.

The most common causes of mental illness as mentioned by respondents see Table (10) drug abuse including cannabis and other psychoactive street drugs which were identified as major causes of mental illness 91.95 % (138), curse or God's will 75.17% (113), witchcraft 65.77 % (99) and demons or evil spirit possession 63.76% (96). Other responses were less than 50% of the respondents. The rest percentage of each respondent's category did not mention the perceived causes.

Figure 5
Perceived causes in relation to the place of residence in Dodoma Municipality (n=152), 2009.



It was found that all categories of perceived causes of mental illness, except alcoholism and life stress, were more commonly mentioned by rural respondents than the urban counterparts. However, perceived causation tended to be the similar in both rural and urban except for evil spirits or demons which were more common in the rural areas.

Table 12

Preferred option for mental illness treatment in Dodoma Municipality, 2009 (n=152).

Treatment type	Frequency	Percentage
Mental health facility	142	93.4
Spiritual/Prayers (Koran & Bible)	95	62.9
Ritual-herbalist (traditional doctors)	64	42.4
Herbalist	46	30.3
Tomb prayers	24	15.5
No treatment	8	5.2
Beaten	4	2.6
Locked in	4	2.6

In Table 11, the majority of respondents 93.4% (142) opted for attendance at modern care/mental health facilities when asked about preferred source of treatment for the mentally ill. This was followed by spiritual healing (exorcism - Bible and Koran) 62.9% (95), the use of traditional herbal medicines 30.3% (46), and 42.4% (64) ritual- herbalist (traditional doctors as commonly known in Tanzania as *waganga wa kienyeji* or *fundi* meaning technician). Others responses presented with low frequencies.

Figure 6
Barriers to mental health service utilization in Dodoma Municipality (n=152), 2009

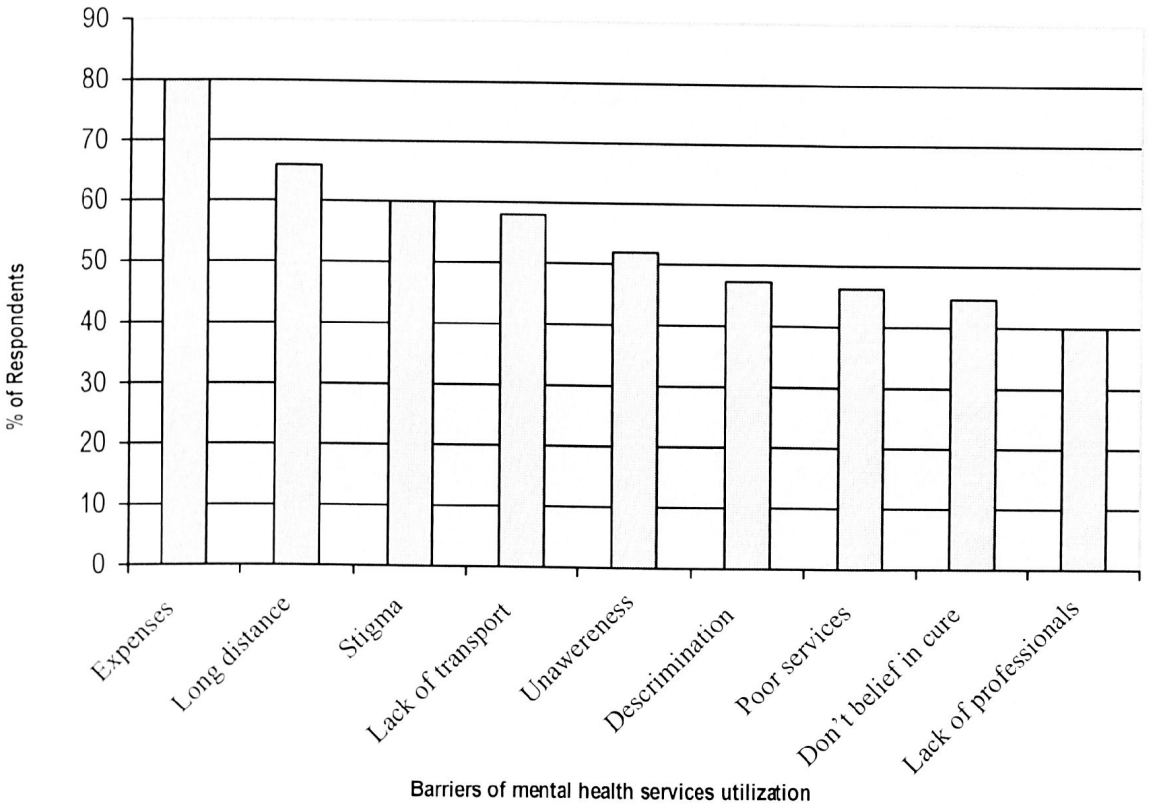


Figure 6 above, indicates the perceived barriers for mental health service utilization as were determined. The most prevalent barrier was the expenses as reported by 80% of the respondents resulted from cost to commute, service consultation and buying medications. Long distance 66.0%, stigma 60%, lack of transport 58.0% and lack of awareness about to where to obtain mental health services 52.0. Others though are important barriers but mentioned with few participants.

Figure 7
Perceived barriers in relation to the place of residence in Dodoma Municipality (n = 152), rural n= 76 and urban n = 76, 2009

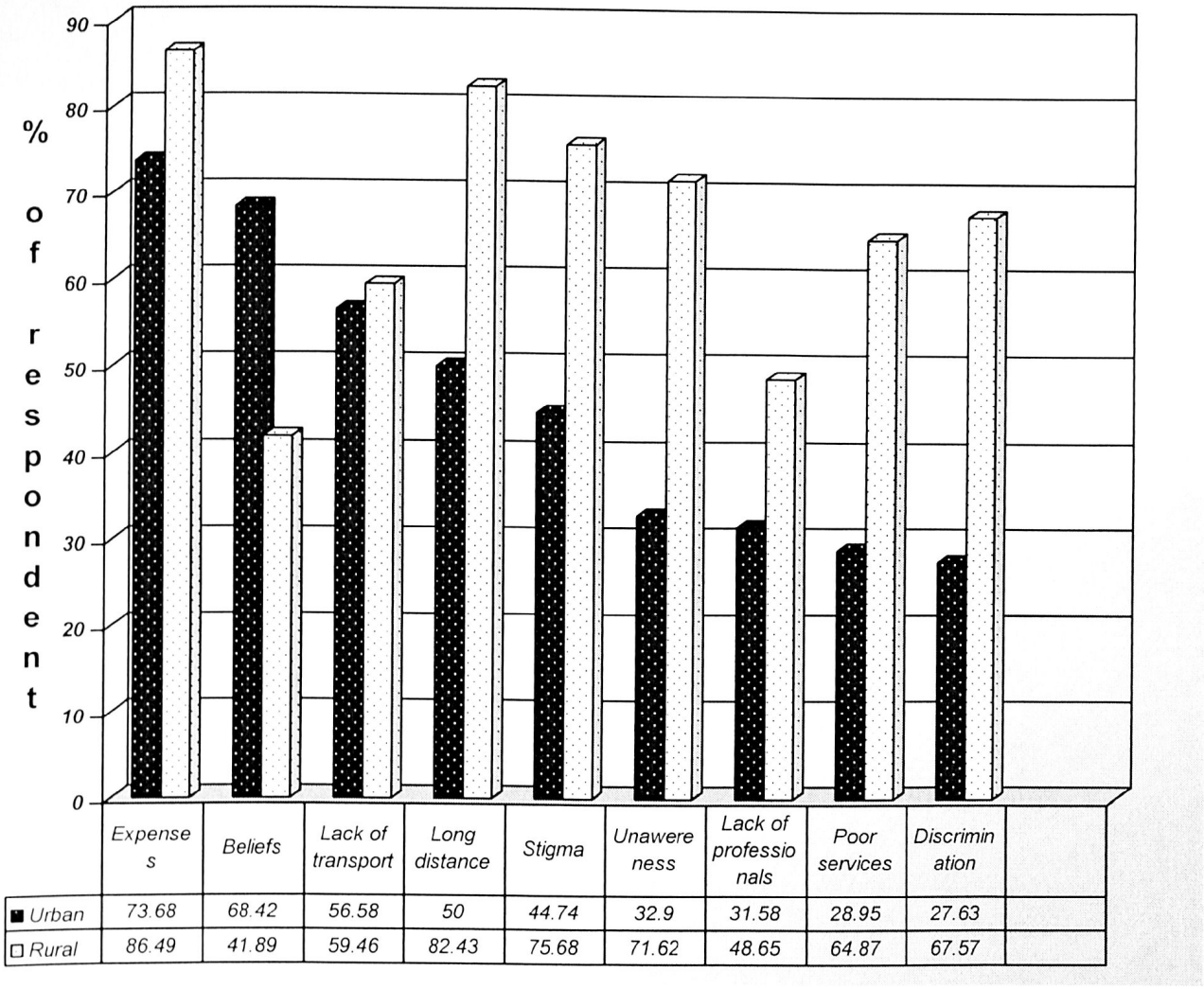


Figure 7 indicates the barriers to mental health service access in relation to the place of residence of the participants. In almost all categories it was noted that the barriers were mentioned at higher response by rural respondents than the urban respondents. However the majority of urban respondents (68.42%) did not believe that they can be cured by mental health professionals as compared to 41.89% of rural participants.

Table 13

Logistic regression models to demonstrate the association between perceived barriers and mental health service utilization, 2009 (n=152).

Variables	Unadjusted Odds ratio	95% CI	p-value
Unemployment Yes/no	63.00	8.77 - 45.41	0.0000
Expenses Yes/no	14.25	6.96 - 29.18	0.0000
Lack of transport Yes/no	16.40	6.65 - 26.35	0.0000
Awareness of Mental illnesses Yes/no	11.83	6.432 - 1.78	0.0000
Stigma Yes/no	17.20	6.9 - 42.35	0.0000
Witchcraft Yes/no	13.14	6.10 - 28.34	0.0000
Belief of cure Ye/no	6.24	3.86-10.09	0.0000
Age 15-59/ 60 and above	1.02	0.98 - 1.07	0.34
Job satisfaction Yes/no	0.86	0.24 - 3.13	0.83

Table 12 is univariate analysis of binary variable in the logistic regression model was done. The significant variables were included in the multivariate logistic regression model.

Table 14

Multivariate logistic regression models to demonstrate the association between perceived barriers and mental health service utilization, in Dodoma 2009.

Variables	Adjusted Odds ratios	95% CI	p-value
Unemployment Yes/no	5.15	2.3-11.47	0.0001
Witchcraft Yes/no	3.33	1.49-7.46	0.0035
Expenses Yes/no	2.25	0.75-6.72	0.14
Lack of transport Yes/no	1.30	0.57-2.96	0.53
Stigma Yes/no	1.33	0.5-3.2	0.53
Unawareness of professional mental health care Yes/no	0.93	0.3-2.9	0.91
Belief on cure Yes/no	1.01	0.47-2.18	0.97

In Table 14, the multivariate logistic regression model after adjusting for socio-demographic data which was not statistically significant and was not included in the multivariate logistic regression model. It was found that unemployment belief in witchcraft were highly statistical significant (p-value< 0.05) to mental health service utilization (unemployment p-value = 0.0001 and witchcraft p-value = 0.0035). The respondents who were unemployed were five times less likely to use mental health services Adjusted Odds Ratio (AOR 5.15, 95% CI: 2.3, 11.47) and respondents who

perceived witchcraft as cause of mental illness were three times less likely to use mental health service (AOR 3.33, 95%CI: 1.49, 7.46).

Other variables such as expenses, lack of transport, stigma, belief of cure and lack of awareness of mental illness were not statistically significant. This means there was no difference between those respondents who mentioned these factors and those who did not.

QUALITATIVE RESULTS

A semi structured interview guide was used to obtain the information (see appendices C&D). The interview guide contained question which were more focused on the participants socio-demographic data, perceived causes of mental illness, beliefs about the cure by mental professionals, perceived barriers to mental health service utilization and decision making process. The data was transcribed verbatim in Swahili language which is the native language for participant as well as to researcher. Then translation of the transcript from Swahili into English was done by a researcher. Content analysis was done while transcribed data was in Swahili; the questions used in subsequent interviews became more focused on clarifying emerging and recurring themes about participants' perceived causes of mental illness, and beliefs regarding available treatment, perceived barriers and decision making towards seeking help when an individuals or a family member becomes mentally ill.

Content analysis is a procedure of qualitative data analysis that is, coding, finding categories, clustering and identifying themes (Neuendorf, 2002). Transcripts were read and re-read line-by-line and significant words and phrases were identified and emerging themes were formulated.

Trustworthiness of the findings of this study can be observed in various criteria developed for qualitative research, namely credibility, transferability, dependability and conformability (Dahlgren et al., 2004).

Validation of the data analysis process was continually carried out by reviewing the data and through the further exploration of concepts with participants.

The credibility of the findings was supported by response of similar experiences by the majority of participants. The identified themes in this study were further supported by similarities with existing literature, and by the researcher's memos and reflective notes. Transferability was facilitated by providing description of informants, data analysis process and setting of the study. Dependability and conformability can be observed through the process of interviewing, transcribing and data analysis. The themes that emerged rather than using numbers to describe how many contributed to the concept were presented.

Socio-demographic background of the interviewee

In-depth interviews were conducted with ten respondents. Four were females and six were males and there age ranged between 21 to 72 years with a median age of 46.5 years. Five were above 50 years of age. There were six males and four females. Eight of them were married; one was a widow and another lost her husband to an unknown place three years ago because of mental illness. The participants belonged to different tribal groups namely: Gogo (6) and Rangi (2) Sukuma (1) and Hehe (1). The native tribes of the area are the Gogo. Six of the respondents were Christian and four were Moslem. The highest level of education attained was primary (7), secondary (2) and tertiary (1). Three were employed by various organizations and the rest were not formally employed. All had lived in Dodoma for more than 10 years.

Themes

After content analysis five themes emerged, that were, mental illness causes, belief regarding professional mental health care, treatment option, barriers to mental health service utilization and decision making. These five themes will now be discussed.

Perceived causes of mental illness

Drug abuse

In perceived causes it was found that the frequently mentioned cause of mental illness was drug abuse. If a client is known to be an alcoholic or a cannabis abuser or user of any other substance of abuse this was linked directly to manifestation of mental illness and this also reflected on help seeking behavior of an individual, that is seeking professional mental health services.

One of the participants who have cared for his brother with mental illness shared this information:

"We went in the hospital because my brother was a cannabis user, heroine abuser and too alcoholic. Probably if the cause was not known we could have decided to go to alternative ...traditional healer...to witchdoctor".

Witchcraft

Witchcraft (Swahili: uchawi) has been defined as a 'mystical and innate power which is used by its possessor to harm people'. Sorcery (ulozi) is defined as 'evil magic against others employing herbs, medicine and charms (Ndosi et al., 1986). These two terms have been used interchangeably.

Witchcraft has been the most common phenomenon of expressing most mental illness in most Tanzania societies. People have fears about sorcery and witches. People have linked mental illness with witchcraft as the most significant cause. People have been speculating any mental illness manifestation with four important questions 'how it happened, how did it happen? Do we have any conflict? and are jealous persons in our community? In Dodoma municipality the traditional healers or anti-witches are becoming much more popular. Most of the misfortune and illnesses are believed to result from witchcraft. It is common to find in street posters indicating witchdoctor's services. This was shared by one of the 54 years old female respondent, who said,

> *"We were living at the near village before shifting to here ten years ago. My brother started to be mentally ill, then my mother too got mentally ill, and just after two years my sister who was at secondary school was sent back home due*

to mental illness. We attended a witchdoctor who told us that someone is witching you. Then we thought that that place is not good for us as there are jealousy people "wanao tufanyia uchawi" (who do sorcery or bewitches us) then we moved to here"

Curse

Curse is a supernatural punishment to an individual due to misconduct through the use of supernatural power done by significant persons such as parents, significant leaders in the community, elders, siblings and grandparents. In other words, it is a bad wish on an individual who misbehaved in violation of community or society expectations.

The participants mentioned that whatever condition cause is unknown to them was related to witchcraft. If there is any previous conflict or where by a victim committed a serious crime in the community such as stealing, beating his father or mother, doing sexual act with close relative or with the parents and significant others was related to curse. This was shared by one male respondent as he said,

"Do you see the man who is found in streets at our village carrying big luggage? He is picking dirties here and there ... he was educated well up to some colleges. He was cursed by his parents because he used to spend all the money on alcohol and he never looked for his parents and once his father went to visit him he asked to him leave just after two days. His father came back and he promised that if that is my son he will pay for what he did to me... and now is crazy".

Stressful life events

Stressful life also was related to mental illness manifestation. This was linked to lack or unsatisfaction of individual requirements including human basic needs such as food, clothing and shelter.

Unknown cause

Those individuals who perceived an unknown cause of mental illness delayed help seeking for treatment and their decision was to attend traditional healers such ritualistic identify the sorcerers, prayers to cast demons and evil spirits, tomb prayers to pay sacrifice in case of any misconduct which is related to the manifestation of mental illness.

Perceived barriers

Participants identified several barriers related to their mental health service utilization. These are discussed here under.

Expenses

From the participants view it was observed that the major barrier to mental health service utilization (MHSU) was related to the cost of transport for traveling from home to hospital. This was most significant in rural areas. Even those living in urban areas noted transport as an important barrier. There were also costs related to payment of hospital charges. In addition, as most drugs are as unavailable in most government health facilities these must often be purchased in private pharmacies at high expense.

> *"I attended the first time at Mirembe hospital and I paid 7300/=Tsh (5.6 US $). She was not admitted.... The second time I was to pay 12600/= Tsh (9.7US $). I couldn't manage so she is just left at home because I don't have money to send her back to the hospital".*

Poor service and lack of enough health professionals

It was reported that once a client decided to attend a health facility the queues to see the doctor, to buy medication and for laboratory investigations takes a lot of time. One mother described her visit,

> *"I took almost a whole day from morning to evening to wait when I went to the hospital with my son. They came late to open the office and the queue was so long starting from the doctor's queue and then to pharmacy. It reached a time in the afternoon when the pharmacy was closed as there was only one to dispense and he went for lunch while myself I was very hungry."*

Stigma and discrimination

The term *stigma* was originated in Ancient Greece, means, "to mark someone" (Brown & Bradley, 2002). Today, *stigma* is defined as a "mark of disgrace or reproach" (Berube et al., 1993). According to the respondents most individuals with mental illnessface stigma. They experience stigma from self, family, and community stigma.

The stigma attached to mental illness is so great that it leads some people to avoid or to hide symptoms. People may deny having a relative with mental illness. One of the participants shared:

> *"You know having a record of mental illness, people think whatever you talk in opposite stance to their wish they will simply ignore your contribution even if it was very valuable by just saying ..... "he/she has a file" ... this puts individuals with mental illnessout of social and development plans in the community".*

Another participant who at some time in his life has suffered mental illness and then recovered shared the bitter part of his mental illness on how he was stigmatized. Instead of his real name people called him *chizi* (English: crazy) and even his family was stigmatized:

> *"...Being mentally ill is worse than being HIV/AIDS positive because with HIV/AIDS your dignity as human being is maintained but the time when I was mentally ill people chased me, I was beaten even by my children, my wife run away... wherever I passed people called me* ***"chizi"*** *and my children also stopped going to school as they were stigmatized by their peers due to my illness. I thank God I'm ok now"*

Discrimination was associated with poverty and the nature of illness. As one of the respondents who was suffering from mental illness for ten years but has now recovered shared the following information:

> *"If you are mentally ill and attend hospital without money it becomes difficult to get proper service. They never think of the nature of mental illness as a barrier to income generation activities ...Where can you get money? ...You may stay unattended completely".*

Service availability

The respondent mentioned that there is scarcity of mental health services in the community. They believed that the only hospital to get mental health care perhaps in the whole country is in Dodoma at Mirembe Psychiatric hospital. Furthermore, participants noted that there is overcrowding of patients at Mirembe which makes it difficult for professionals to deliver their care to serve them satisfactorily.

Belief in mental health professional

In Africa, belief in traditional mental health care has a long history from ancestors. Most of respondents believed that the cause of mental illness is due to supernatural and the question was "Are those mental health professionals trained in dealing with supernatural causes? How can they treat while they do not know the cause? As one of the respondents who was 70 years old said,

> *During our fathers era there were great traditional doctors "traditional healers" who they will tell you exactly who witched you and they will provide herbs and people were recovering. Now days, those who obtain treatment in the mental health facilities very few of them recovers. But people still insist to go in the mental health facilities may be that is due "mambo ya kisasa" the new world.*

Treatment option

Most participants believed professional health care is the best option for care. The majority of participants believe in this type of care only when the cause of mental illness is known to them such as an individual being drug abuser or if presenting with depression after significant loss of property or loved once. Some mention this option as a trial and if it fails they will consult to traditional healers or spiritual healers. This was evidenced by one of the female participants who cared for her husband and she said,

> *"We went to Mirembe hospital and he was admitted for three months without any improvement. Later we asked for discharge and we went to a witchdoctor who helped us a lot; and we found there was significant improvement.... There are some mental disorders that can be treated in hospitals but some can't and "waganga wa kienyeji" (traditional healers) they help."*

It was difficult to tell whether an individual started treatment at a mental health facility or at traditional healers. Most individuals seek traditional healers particularly ritualistic secretly and they fear to be stigmatized as it is against religious faith or cultural norms to attend to ritualistic. People though tend to believe on supernatural causes such as curse, witchcraft, demons or evil spirits. These kinds of beliefs remain on individual's secret as mostly are not communicated to others. One senior respected village leader said,

> *"People come to seek advice when things are worse. They hide to telling what pertains to where they were getting treated before as they think they have done a miserable thing to the community by attending traditional healers".*

Decision making process to use mental services

The barriers to initial self help-seeking behavior related to cultural influences in the areas of cognitive processing of information regarding mental health and illness, affective responses to emotional problems, and cultural values governing communication norms on mental illness. The vast majority respondents stated that it takes time from the manifestation of symptoms to the time of making a decision to seek treatment. These were due to lack of knowledge or understanding manifestation of symptoms. As one of the female respondents who cared about a male partner with mental illness said,

"I observed change in him while I was five months pregnant and we went to seek help at Mirembe hospital two months after the birth...Initially I thought his change in behavior was due to "nyumba ndodgo (hawala)" meaning "small house"(concubine) because most men after getting a concubine became very aggressive with their wives .... After investigation I found it was not. Then I decided to seek mental health services for help.... Up to the moment it is 2 years since he is lost and nobody knows where he is. We made all the effort to find him but in vain".

The impact of delay in help seeking was mentioned as a greatest cause of increased cost as cause of complications in mental illness. One of the participants to the health professionals FGD responded that:

"Those mentally ill they come in hospital after visiting several traditional healers so here they come while the disease has been chronic and it makes its more difficult to treat and to help them regain their pre-morbid level of functioning"

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION

DISCUSSION

Causes of mental illness

This study has shown that respondents believed that leading causes were drug abuse (91%), curse (74%), witchcraft (65%), evil spirits (64%) and other causes such as marital conflict, inheritance, life stresses and unemployment were not as prevalent. Adewuya and Makanjoula (2008) conducted a related study in Nigeria to determine causes of mental illness which yielded similar findings in perceived causes of mental illness.

Several studies from the western culture showed that biological factors (diseases of the brain and hereditary influences) and environmental factors (trauma and stress) were more frequently considered to cause mental illness (Angermeyer & Matschinger, 2005; Gaebel et al., 2002; Stuart & Arbodela-Florez, 2001), while in most African culture, beliefs in supernatural causation are widely held (Adewuya & Makanjoula, 2008; Akighir, 1982; Gureje et al., 2005; Fekadu et al., 2001). In multivariate regression model it was found that belief in witchcraft and unemployment were the statistically significant factors towards mental health service utilization. These findings are similar by other studies to those reported Tanzania that mental illness has historically been considered as caused by an incurable curse, witchcraft, and demon possession (Njenga, 2002; Kilonzo & Simmons, 1998). People feared and rejected people with mental illness as contact with them was associated with disease transferability (Njenga, 2002).

Treatment option

In this study it was found that the majority opted to use mental health facilities once they become mentally ill (93.4%). This can be discussed with confounding effects of the researcher being a mental health nurse seek professional Mirembe hospital this could have caused high option of using mental health facility. Other important source of care was spiritual healers (62.9%), traditional doctors (*waganga wa kienyeji)* (42.4 %), herbalist (30.3 %). Tomb prayers (15.5 %), leaving individuals with mental illness

without treatment (5.2%), beating (2.6%) and locking in houses (2.6%) were less mentioned. These results showed that the majority prefer to attend to mental health care though mixing up services by also seeking other traditional types of care common. The probable reason pertaining towards seeking several cares could be linked to some mistrust of both services; those practicing this way are doing it as a result of trial and error to test which service will be effective to an individual for a prevailing mental health problem and barriers to care. Another reason could be that patients suffering from mental illness and their carers are likely to share beliefs regarding causes of mental illness with the traditional healers (spiritual and traditional healers) as they are generally held by the society in which they live. Adelekan and colleagues (2001) in Nigeria suggested that traditional healers can recognize symptoms of mental illness, and they also express strong beliefs in supernatural factors as a cause of mental illness.

Available studies in Africa region have suggested a preference for traditional and spiritual healers for the treatment of mental illness (Stock, 1995; Akighir, 1982). In Nigeria for example it is estimated that approximately 70% of mental health services provision is delivered through religious organizations and traditional healers (Ayolinde et al., 2004). This is similar to the findings of this study in which of 63% prefer to use traditional healers (spiritual healers). A study from East Africa showed that often individuals with mental illnessresorted to witchcraft and traditional healers to remove the curses or supernatural forces behind the illness (Njenga, 2002).

A study from Dar es Salaam (a large urban city in Tanzania) has shown that the prevalence of common mental disorders among those attending a traditional healer centers was 48%, which is twice what was found at primary health clinics (24%) (Ngoma, 2003). Those findings are similar with this study though with relatively low prevalence in preference for traditional healers (spiritual healers (62.9%) and traditional healers (commonly known as traditional healers) (42.4%) and different as the majority in this study preferred mental health care in mental health facilities (93.4%).

The other options though were not as prevalent but should not be ignored, as they can affect individuals with mental illness include leaving an individual without any treatment (5.2 %), beating an individual to remove curse (2.6%) and locking an individual in the house (2.6%) while treatment is available. This can also be linked to violation of human rights. Human right to health states that every woman, man, youth and child has the human right to the highest attainable standard of physical and mental health, without discrimination of any kind. Enjoyment of the human right to health is vital to all aspects of a person's life and well-being, and is crucial to the realization of many other fundamental human rights and freedoms. Denying available treatment and beating individual just because of mental illness is discrimination of human to health right.

Barriers

This study has indicated that significant treatment barriers exist for individuals suffering from mental illnesses and these will be discussed here under.

Expenses

Lack of money to purchase medications, pay for consultation and commute from their place of domicile was noted as the most significant problem in seeking treatment for mental health problems. Deteriorating roads coupled with inadequate and unaffordable transport make it difficult for the poor to seek and reach mental health facilities Most participants reported the preference to use mental health services but actually when sick they use traditional healers. This may be related to less cost than modern or Western health care practitioners. The traditional healers (spiritual and traditional healers) accept what the client can afford to pay for the services such as crops, milk, cow, goat, sheep and others depending on the patient problem. With traditional healers one pays according to one's status. Moreover, with traditional medicine you do not pay the traditional healers if your health does not improve; you only pay when cured (Cook, 2007). This study has indicated that rural population are more likely to experience barriers to mental health service utilization than their urban counterparts; the reason can be due to rural poverty rates are considerably higher and more persistent than urban poverty. These findings are similar to those of studies conducted in Canada, United States of America

and Netherlands which indicated that higher-income respondents are more likely to receive mental health services than lower-income individuals (Steele et al., 2006; Sharfstein, 2006; Sareen et al., 2007).

Stigma and discrimination

This study has demonstrated that stigmatization is harmful because is often attached to the entire family as well as to the mentally ill individual. The result is often linked to resentment, fear, and maltreatment of the mentally ill. Some cultures in Tanzania insist not to marry to a family with a mental illness individual. This finding is similar to a study conducted by Kirmayer et al., (2008) in the US demonstrated that stigma discourages individuals from seeking health services for their afflictions, for fear of discrimination. The stigma associated with the term *"chizi"* (crazy) is an important barrier; individuals who were past patients rejected this characterization of the problem. In this study individuals who perceived stigma as a treatment barrier were least likely seek treatment compared to participants who did not share such perceptions.

Belief on professional cure

The study has shown that 44.67% of individuals believed that they can not be cured by professionals and among those individuals 68.42% were from urban the rest were from rural area. In the in-depth interviews it was found that people were unsure of the options pertaining to which treatment, whether traditional, or western/ modern treatment, is the best. Any option was taken just as trial and error once one fails the next is sought for care. This findings are similar with another study in Tanzania that reported belief in supernatural causality invariably leads to seeking assistance from traditional healing systems while belief in a physical cause of illness results in seeking help from allopathic sources of care (Aloyce, 2007). Also, this is consistent with what was found in Nigeria which showed that belief in the supernatural causation of mental illness might make close association with the mentally ill unattractive, and perceived then the mentally ill to be risky persons it may also imply that ''western'' medical care would be futile and may

inform preference for traditional and spiritual healers for treatment (Adewuya & Makanjuola, 2008).

Poor services, unawareness and lack of professionals

The study has noted that rural residents were unaware about where to get mental health services and the perception poor service delivery placed them at greater risk when compared to their urban counterpart; (rural 71.62% and urban 32.90 %, rural 64.87% and urban 28.8%, respectively). The majority of rural respondents were more likely to perceive poor service though unaware where to get mental health care. Urban participants were more than the rural respondents to believe in the possibility of cure by mental health professionals (rural 41.89% and urban 88.87%).

Decision making

Decision making involves recognizing symptoms and seeking care as part of an iterative sequence in which persons become aware of changes in how they feel, assess the effects and magnitude of these changes, attribute meaning to them, decide whether they have a problem, assess the nature of the problem, calculate whether the problem would benefit from intervention, decide to pursue intervention, assess whether formal health care is required, and select the appropriate source of care. At various points in the sequence, persons may reassess various issues such as the cause of the symptoms, magnitude of symptoms, the appropriate meaning of these symptoms, and the most useful sources of assistance as they acquire more information and experience about the course of their symptoms. In this study, it was shown that most respondents delayed making a decision pertaining to appropriate assistance for mental health care. This findings is consistent with a study from South Africa which found that popular perceptions of what is appropriate care usually influence the advice, as do cultural and religious factors as well as previous experiences with healing (positive or negative) (Swartz, 1998).

This is in accordance with the health belief model in which an individual perceives susceptibility to an illness or perceives threat of a disease then weighs the benefit and risk

or barriers to behavioral change. This process guides a person whether to use mental health services or not.

CONCLUSION

The study has determined barriers to mental health service utilization that include expense, distance, stigma, discrimination, poor services, lack of transport both public and private including finances to commute, lack of awareness about where to obtain mental health services and lack of professionals. Some did not believe in the efficacy of mental health professional care. The rural population experiences more barriers to mental health services than the urban population. This can be due extreme poverty in rural areas. The way one perceives the causes of mental illness has been shown to be a significant link to the decision to seek mental health care. This also creates difficulties for the individual's decision whether to attend "modern" western care or to use the traditional forms of care. This study also has highlighted the need for mutual sharing of knowledge between mental health professionals and traditional healers. Respondents felt that their perceived causes and barriers to mental health services utilization were not addressed when attending different therapy after mental health facilities.

It is likely that cultural beliefs, shame, stigma, fear of being misunderstood, traditional family structures, support systems and a lack of trust of external providers may all influence mental health care (Youssef & Deane, 2006). These findings can be useful to health policy makers in the design of community mental health programs and community mental health services integration in the existing primary health facilities in Tanzania.

RECOMMENDATIONS

Recommendation to mental health practitioners.

As the study has shown, most individuals are unaware of the symptoms of mental illness and available treatment. The mental health practitioners are required to understand and reduce or eliminate barriers to mental health services, to inform the public about available treatments, and to motivate primary care health workers to recognize and treat these conditions.

This study demonstrated that the public is still only vaguely aware of most types of psychiatric morbidity and the availability of effective treatments. Mental health promotion should be done to provide a better understanding of mental disorders among the public and would allay fear and mistrust about mentally ill persons in the community as well as lessen stigmatization towards such persons.

Professionals have yet to acknowledge their lack of training and shortage of knowledge in the area of their patients' spiritual beliefs, traditional healers care, cultural experience and perceived causes of mental illnesses of the served community. There should be efforts towards mutual sharing of knowledge between modern or western health care practitioners and traditional healers. These to be more inviting, would encourage minorities to get treatment, and would improve their outcome mental health service utilization.

Recommendations to policy makers

There is an urgency need for policy makers to develop comprehensive strategies that are country specific for closing the gap between effective and available mental health services. This study has shown that there is a need for the policy makers to translate the ten recommendations of the World Health Report (2001) into concrete action. The World Health Report recommends the following strategies:

1. Provide treatment in primary care.

   Mental health investments in primary care are important but are unlikely to be sustained unless they are preceded or accompanied by the development of community mental health services, to allow for training, supervision, and continuous support for primary care workers. This will reduce the distance and cost for commuting to find mental health services as it has found in this study.

2. Make psychotropic medicines available.

   In this study it has been shown that there is a problem of availability of medication in the few available mental health facilities and this makes the consumers buy from private pharmacies at a very high cost. This study found that one of the barriers is poor services including shortage of psychotropic medications. The availability of psychotropic medication in primary care can motivate the consumers to opt mental health services for care.

3. Give care in the community.

   These findings may be useful to health policy makers in the design of community mental health programs and community mental health services integration in the existing primary health facilities in Tanzania.

4. Educate the public.

   As it has been shown in the study, people believe they can not be cured by mental health professionals. There is a need for educating the public on the causes and the available treatment and the efficacy of that treatment.

5. Involve communities, families and consumers.

   In any establishment or in plans for integration of mental health services there is a need to involve the stakeholders so they have a sense of ownership and increased awareness of the available services.

6. Establish national policies, programs, and legislation.

   The nation's policy programs and legislation should be made known professionals and the consumers of the services, for example, on the issue of cost sharing which the consumer consider a barrier for a mentally ill individual towards utilizing mental health services.

7. Develop human resources.

The low numbers and few types of workers who are trained and supervised in mental health care, and the frequent scarcity of public-health perspectives in mental health leadership, can be alleviated through training of enough staff. In fact Tanzania has produced a total of 25 psychiatrists, of whom 11 are working in the Tanzanian public service, 2 work in private practice, 9 are abroad and 2 have retired. In addition, 1000 mental health nurses have been trained, but only 460 are currently deployed in the mental health services (Mbatia et al., 2009). The study has shown that patients delay to obtain mental health services in facilities due to congestion at mental health services. There is a need to train more staff so as to serve the Tanzania population of about 38,000,000 million (Tanzania Population census, 2002).

8. Link with other sectors.

Advocates for people with mental disorders will be needed and collaborate with other sectors that provide support to mentally ill individuals. The expenses and stigma can be alleviated.

9. Monitor community mental health.

Mobilization and recognition of non-formal resources in the community must be stepped up. Community members without formal professional training and people who have mental disorders and their family members need to participate in advocacy and service delivery. Such as forming volunteer groups who will work in identifying and referring accordingly those individuals with mental illness and this will help also in reducing stigma. With the support of the formal health system, indigenous practitioners might become important agents in organizing efforts to improve the mental health of the community (Ngoma, 2003).

10. Support more research.

To generate knowledge which is evidence-based there is a need for local and international governmental and non-governmental organizations to support mental health research, particularly that dealing with community mental health services.

Recommendation for further research

Further studies and research in this area are needed to address the values and beliefs of the patients and also to explore beliefs of the mental health professionals. This would help to forge a mutual and respecting therapeutic alliance between therapists and their patients.

There is also a need for more qualitative research to aid us in understanding why people underuse mental healthcare services and why people, though they have intentions to choose mental health facilities, but when mentally ill they under utilize mental healthcare services.

Research is required to determine knowledge of the lay public regarding causes of mental illness, cultural attitudes and belief context and the effects on their choice of treatment. This will help in evaluating the patient's help seeking behavior.

Implication and Limitations

Implications

- The study highlighted the need for taking into consideration the cultural and spiritual barriers and choice of mental health care when approaching their client's mental illness.
- The vast majority of respondents felt that their mental illness was not addressed when seek help at mental health facilities. When caring for individuals with mental illness there is a need to clarify on the possible causes of mental illnesses relating to the current problem and the available treatment.
- Community mental health services such as domiciliary care, outreach clinics, home visiting and integrating mental health services into primary care should be implemented to care for the patient and to identify those in need of mental health professional care.

Limitation of the Study

- This study relied upon the accuracy of the respondent to report whether or not him/her or their household member or any individual in their community had a mental illness diagnosis, not upon a clinical mental illness diagnosis by a qualified mental health practitioner.
- The sample did not include data on military personnel, individuals residing in institutions, individuals below 18 years of age or the homeless. Generalizations can not be made to those populations.
- A researcher having been introduced as a mental health practitioner could have confounded the result on the option for attending mental health facilities.

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