FACTORS INFLUENCING MENTAL DISORDERS AMONG PERSONS LIVING WITH HIV/AIDS ATTENDING HEALTH FACILITIES IN BUSHENYI,

BUSHENYI DISTRICT, WESTERN UGANDA.

By

AKPANUMOH, UBONGABASI EBONG

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A RESEARCH REPORT SUBMITTED TO THE FACULTY OF CLINICAL MEDICINE AND DENTISTRY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A BACHELOR OF MEDICINE & BACHELOR OF SURGERY OF KAMAPALA INTERNATIONAL UNIVERSITY, UGANDA.

APRIL, 2019

DECLARATION

I AKPANUMOH, UBONGABASI EBONG hereby declare that this research work is my original work and have not been submitted to any other institution for an academic award.

Signature …….. Date ……

APPROVAL

This work has been submitted to university examiners with my approval as a university supervisor.

……..……..

Mr. Mbina Solomon

Department of public health

School of Allied Health Sciences

Kampala International University-Western Campus

DEDICATION

I wish to dedicate this report to my dear parents; EBONG TOMMY AKAPN AND ARIT EBONG TOMMY AKPAN for their love, care and incomparable financial and moral support.

This report is also dedicated to Mr. Mbina solomon for his continuous supervision and encouragement.

I also wish to dedicate this work to my siblings Mfonobong, Aniekanabasi, Utibeabasi, Emmanuel and Glory for their love, continuous encouragement and support which has seen this research successfully done.

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DEFINITION OF KEY TERMS

Socio-demographic: These are personal characteristics used to evaluate and collect data on people in a given population (Bhandari, Taneja, Mazumder&Bahl, 2013).

Institutional factors: These are collective actions in control, liberation and expansion of individual action. Institutional factors focus on the norms and rules, both formal and informal, created due to their occasional abrupt changes (Hoskins, Nakku 2011).

Mental disorders: It is a state of psychosocial, physical and social ill-health which interferes with an individual appropriate thinking perception relationship, and the ability to adapt to the changing living conditions (Freeman, Patel, Collins, Bertolote, 2012).

Health: It is a state of complete physical, mental and social wellbeing not merely the absence of disease or infirmity. This implies that mental health is an essential and integral component of health as a whole (WHO, 2010).

Human Immuno-Deficiency Virus (HIV); is a lentivirus (a sub-group of retrovirus) that causes the Acquired Immune Deficiency Syndrome (AIDS), a condition in humans which progresses failure of the immune system and allows life-threatening opportunistic infections and cancers to thrive (Weissa RA, 1993)

LIST OF ACRONYMS AND ABBREVIATIONS

AIDS:	Acquired Immune Deficiency Syndrome
ART:	Antiretroviral therapy
DHIS:	District Health Information System
DST:	Drug Sensitivity Testing
HIV:	Human Immune Virus
HMIS:	Health Management Information System
HRH:	Human Resource for Health
HSSIP:	Health Sector Strategic Investment Plan
ICD-10:	International Classification of Diseases-10
MH:	Mental Health
MD:	Mental Disorders
MDD:	Major Depressive Disorder
MARPs:	Most at Risk Populations
NACP:	National Aids Control Programs
NHP:	National Health Policy
PLWHA:	People living with HIV/AIDS
PMTCT:	Prevention of Mother to Child Transmission
PNFPS:	Private Not for Profits
TB:	Tuberculosis
UNMHCP:	Ugandan National Minimum Health Care Package
LG:	Local Government
S/C:	Sub County
SUPR:	State of Uganda Population Report
WHO:	World Health Organization
SPSS:	Special Package for Social Scientists

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ABSTRACT

Background: Mental illness affects many health related outcomes for an HIV positive individual and the prevalence of anxiety, depression and substance abuse is higher among people living with HIV/AIDS than in the general population.

Objectives: The objectives of the study were to investigate the factors influencing mental disorders among persons living with HIV/AIDS attending health facilities in Bushenyi.

Methodology: The study employed a descriptive survey where both qualitative and quantitative approaches of data collection and analysis. The study population was 180, selected using purposive sampling. The data analysis was done using Statistical package for social scientists (SPSS. 20).

Results: The major findings indicated results that under the Socio-demographic factors; Females representing a high number of consistent values/ responses with 112.75, Age by 50 years with 126.00, Under Marital status, the Separated category with 120.25. Then Education, Post graduate level respondents representing a high number of consistent values with 117.50.Ander under Economic status above 1000,000 UGX earners representing with 114.25.Regarding variation/ relation between the study variables/ attributes, the study presented high correlation both amongst variables and within classes with Age Gender, marital status, Education with and Economic status. They also showed a positive relationship between Socio-demographic factors and prevalence of Mental Disorders among PLWHA ($r = 0.432$, P-value < 0.01) and ($R= 0.451$) and the variables explained 20.4% of the variance of Mental Disorders (R Square =.20.4).

Conclusion/Recommendation: The study recommends for a need to reduce on division of sexes among patients and equally care for all patients whether young, female or male, old and young in order to reduce on the population of persons living with mental disorders and HIV/AIDS.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the introduction, background of the study, problem statement, purpose of the study, general and specific objectives, research questions, scope of the study, significance of the study and the conceptual frame work.

1.1 introduction of the study sector

Uganda's mental health policy was developed in 2000; and was still in draft form (in 2006). The policy included the following components: developing community mental health services, downsizing large mental hospitals, developing a mental health component in primary health care, human resources, involvement of users and their families, advocacy and promotion, human rights protection of users, equity of access to mental health services across different groups and monitoring the system (WHO-AIMS Uganda, 2012).

The World Health Organization (WHO) estimates that 450 million people live with mental disorder or behavioral disorder worldwide. The World Health Report 2014 indicates that neuropsychiatric disorders account for 14% of disability-adjusted life years (WHO, 2010). Currently, 1.7 million people are living with HIV in Uganda; of these, 1.5 million are adults aged 15-49 years and 738,700 are children aged 0 – 14 years. The national prevalence rate of HIV among adults aged 15 – 49 years is 7.7% (UNAIDS, 2015). This raised the expenditure on mental health to approximately 4% of health care expenditure. Of all the mental health expenditures, 55% was directed towards the National Mental Hospital (SUPR, 2011).

About 1% of expenditure by the government health department was directed towards mental health in primary care. However, as part of the integrated health service delivery, other aspects of mental health were funded within the general health budget as well. Furthermore, under donor support to the government, the health sector's financing was at the time supplemented by funding from the African Development Bank (ADB), with nearly 45% of the support going to mental health. This raised the expenditure on mental health to approximately 4% of health care

expenditure. Of all the mental health expenditures, 55% was directed towards the National Mental Hospital (SUPR, 2011). Mental health problems are increasing, with depression at 12-68%, anxiety disorders at 20-62% and alcohol dependency at 14% in the general population (Mental Health Policy, 2007).

Butabika Hospital is the only national referral psychiatric hospital in Uganda, caring for hundreds of patients from all over the country, with numbers as high as 1200 on some occasions. 60% of the patients at the hospital suffer from acute conditions.

However Mental illness affects many health related outcomes for an HIV positive individual and the prevalence of anxiety, depression and substance abuse is higher among people living with HIV/AIDS than in the general population (Mellins&Malee, 2013). The HIV virus also directly affects the central nervous system, giving rise to mental illnesses such as manias (UNAIDS, 2015).

1.2 Background to the study

Mental disorders is a state of psychosocial, physical and social ill-health which interferes with an individual appropriate thinking perception relationship, and the ability to adapt to the changing living conditions (Freeman, Patel, Collins, Bertolote, 2012). It is not well known that mental illness affects many health related outcomes for an HIV positive individual, and the prevalence of anxiety, depression (Akena, Musisi, Joska& Stein, 2012). Mental disorder can lead to medication side-effects, contribute to unhealthy lifestyle, hinder education, lead to unemployment, and influences marital opportunities and outcomes (Gupta, Dandu, Packel, Rutherford, Leiter, Phaladze, et al. 2010).The few studies that have been undertaken in Sub-Saharan African point to the following risk factors for MDD in HIV/ AIDS ;female gender, older age, unemployment, negative life events, childhood trauma, impaired function, poor social support, poor quality of life and low CD4 COUNTS (Eugene Kinyanda et al, 2011).Mental disorder is measured using attributes like Aids phobia, Depression, Anxiety disorders and post-traumatic stress disorders (Mellins&Malee, 2013).

Socio-demographics are personal characteristics used to evaluate and collect data on people in a given population (Bhandari, Taneja, Mazumder&Bahl, 2013). It is a group defined by its sociological and demographic characteristics. It is known that HIV infected individuals often

have difficulties telling others about their status. For disclosure to happen, it depends on several factors which include age, socio-economic status, level of education, marital status, social relations, knowledge, cultural factors and acquaintance on the importance of HIV disclosure. However it is not known that detecting depression early and treating it goes a long way in improving the compliance to treatment as well as quality of life (Bahatia, 2014).Socio-demographic factors are important because if we believe that health is genetically, biologically, ecologically, culturally and socially determined, then gender must be recognized as being one of these determinants as it is interconnected with biology and the socio-cultural factors that affect health (Ahmed, Adams, Chowdhury &Bhuiya, 2012).Factors include age, socio-economic status, level of education, marital status, social relations, knowledge, cultural factors and acquaintance on the importance of HIV disclosure (Fienrich&Jellema, 2013). Socio-demographic is measured using attributes like gender, age, economic status, marital status and education levels (Ntseane, 2014).

Institutional factors are collective actions in control, liberation and expansion of individual action. Institutional factors focus on the norms and rules, both formal and informal, created due to their occasional abrupt changes (Hoskins, Nakku 2011). It is known that it relates to the specific institutional changes required to adjust the strategy objective to meet the objectives of economic, ecological and social sustainability of the health sector. However it is not known that the general view of persons living with HIV/AIDS and their perceived levels of support from their institutions regarding protection procedures were both important predictors for discrimination intent (Siyan, Pheak, Suong, Kouland, Brody and Tuot, 2015). These findings indicate a need for community-based interventions to reduce stigma and discrimination in the general public and to help PLHIV to cope with this situation.Institutional factors are measured using attributes like presence of drugs, waiting time, HIV counselling and testing, support from health workers and training of health workers (Hoskins, Nakku 2011).

1.3 Problem Statement

Common mental disorders (CMD) affect people across the world with a global lifetime prevalence of 29 % (Steel et al., 2014). World Health Organization estimated 90% of people who have HIV/AIDs and other chronic disorders suffer from psychological misfortunes in 2010 and 70% of those who die of AIDs may show evidence of central nervous system breakdown (WHO,

2010).CMDs are a leading cause of disability and are known to hasten HIV disease progression, particularly in LMIC where low levels of CMD detection at primary health care level are confounded by a large treatment gap for CMD (Maystim et al., 2012).

In sub-Saharan Africa it is estimated that there is one psychologist for every 2.5 million people, one mental health nurse for every one million people and one psychiatrist for every 2 million people (Steel et al., 2014). In contrast, in high income countries the ratio of psychiatrists to the population is estimated to be 1:10000.

In Uganda, mental disorders have been discovered as one of the challenges faced by people living with HIV. Statistics show that close to 20% (6.8 million) out of the 34 million people in Uganda has some degree of mental illness, ranging from anxiety and depression to severe madness. The increased occurrence of mental disorder among persons living with HIV/AIDs is high; HIV infection and psychiatric disorders have a complex relationship. The number of Ugandans referred to different health facilities across the country to seek treatment for mental disorders caused by alcohol, and other drugs has increased from about 4,000 cases in 2012 to about 20,000 cases in 2016. For instance Butabika National Referral Hospital alone receives 500 cases of people seeking treatment for mental problems caused by alcohol every month (IOGT International, Report, 2016).

Being HIV infected could result in psychiatric disorders as a psychological consequence of the infection or because of the effect of the HIV virus on the brain. Socio-demographic and institutional factors may contribute to increase of mental disorders among PLWHIV due to some experiences such as stigma, stress, institutional policy, availability of drugs, hence, justifying the need of this study. This study therefore intends to determine how these factors are associated with mental disorders among persons living with HIV/AIDS who attend health facilities in Bushenyi municipality.

1.4 Study Objectives

1.4.1 Broad objective

To assess the factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, district.

1.4.2 Specific objectives

(i) To determine the prevalence of the mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, district

(ii) To determine the Socio-demographic factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, district

(iii) To identify the institutional factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, district.

1.5. Research Questions

i. What is the prevalence of the mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, district?

ii. What are the Socio-demographic factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, District?

iii. What are the institutional factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, District?

1.6 Scope of the Study

1.6.1 Subject Scope

To study focused on the factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, District.

1.6.2 Geographical Scope

The study was conducted in Bushenyi Health center IV which is a public health facility located in Bushenyi and Kampala International University-Teaching Hospital, private hospital both located in Ishaka both in Bushenyi District of Uganda. These health facilities were purposively chosen because they have ART clinics which are always well attended.

1.6.3 Time Scope

The study was conducted between February, 2018 and March 2019.

1.7 Significance of the study

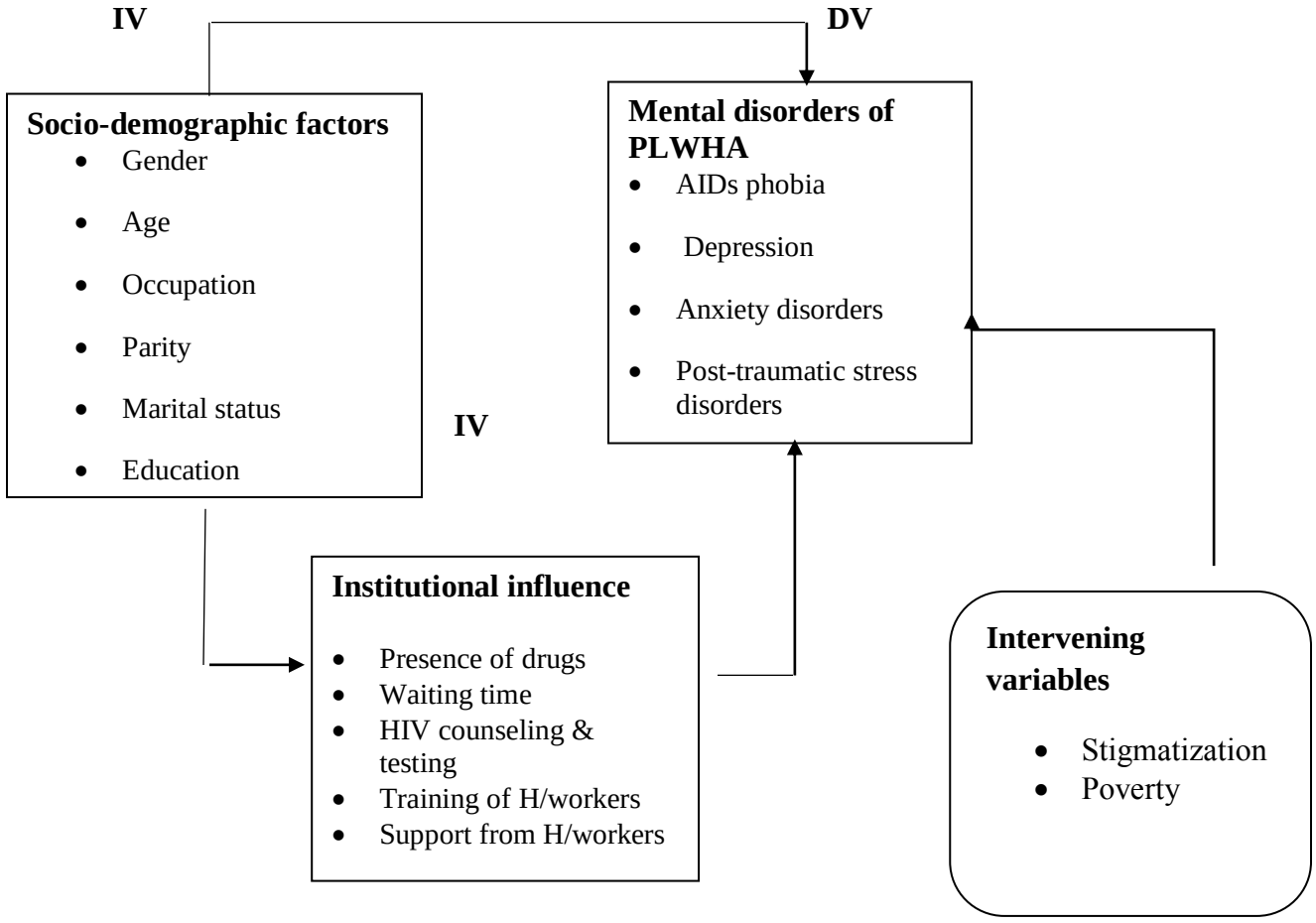
The study findings are expected benefit in no little measure different organs of health as follow;

i. Findings from this study are expected to add to the existing knowledge about people living with HIV.

ii. Findings from this study can provide insight on the risks of mental disorders among PLWH as well as to identify the coping strengths among PLWH that might help in adapting in to the condition for implementing partners.

iii. Policy makers can benefit from these study findings in planning for comprehensive HIV/AIDs and mental disorders management in the district.

1.8 Conceptual Framework



Explanation

The independent variables are Socio-demographics factors with attributes as gender, age, economic status, marital status and education levels and institutional factors using attributes like presence of drugs, waiting time, HIV counseling and testing, support from health workers and training of health workers. While mental disorder of PLWHA is the dependent which is

measured with using attributes like AIDS phobia, depression, anxiety disorders and post-traumatic stress disorders. The intervening variables on the other hand include stigmatization, poverty and so on. It is conceptualized that the IV influence the DV which may ultimately lead to any or most of the attributes in the DV.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter comprise of the reviews of literature. The review was done according to the specific objectives of the study.

2.1 Prevalence of mental disorders among PLWHA

In Cross-sectional study of HIV status in persons consecutively discharged from psychiatric admission wards in Butabika hospital, Uganda. Inclusion criteria: age 18–49 years; schizophrenia, bipolar disorder, depression, or other non-substance-use-related psychosis; Luganda or English proficiency. Exclusion criterion: Mental incapacity to give informed consent. Participants were HIV-tested, and interviewed using a structured questionnaire. Females had higher risk of HIV infection than males (OR 2.10; CI 1.20-3.67), after adjustment for age. Older patients had higher risk of HIV infection than younger patients after adjustment for sex.

In conclusion, Persons admitted for SMI in Uganda have higher HIV prevalence than persons in the general population, irrespective of previous admissions. The excess HIV prevalence is mainly confined to women. The findings call for the integration of HIV prevention, testing and care with mental health services in settings with generalized HIV epidemics. Moreover, further research is needed to clarify the mechanisms underlying the increased HIV prevalence in women with SMI in Uganda, and to identify effective community-based interventions for this vulnerable group.

Evidence from Low and middle income countries is limited and less clear. Most of the studies done in Africa with HIV positive participants have shown differing but high percentages of mental distress, for example, Orange Free State, South Africa 40%, rural Ethiopia 14% and Botswana 28% (Gupta R, et al, 2010). The constituents the Mental Disorders among the PLWDs are discussed here below;

AIDS Phobia

It is a fear that can often take control of a person's life, the fact of which the person may fully realize but feel unable to control. People with AIDS phobia can often be so convinced they are infected that the entire negative tests in the world won't ease their fear (Akena, Musisi, Joska& Stein, 2012). They will spend enormous amounts of time on the internet looking for evidence that their fears are founded, oftentimes in anecdotal or outdated news item or websites offering quack medical advice (Flisher, Lund, Funk, Banda, 2011). It consists of unfounded fears of having contracted AIDS, incorrect beliefs as to how HIV is transmitted, producing bizarre attempts to avoid the illness.

Depression

The World Health Organization (WHO) defines depression as a common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep and appetite, low energy and poor concentration (WHO, 2010). HIV related stigma has been associated with depressive symptoms. Depression is a major issue in HIV/AIDS care because it is highly prevalent in PLWHA and because it negatively affects engagement to care. Depression in HIV/AIDS should be managed by a mental health professional e.g, a psychiatrist, psychologist or social worker, in close communication with the physician providing ARV treatment, as described in depression and HIV/AIDS (The Body, 2010).

Anxiety disorders

Anxiety can present with a wide range of physiological manifestations, such as shortness of breath, chest pain, racing/pounding heart, dizziness, diaphoresis, numbness or tingling, nausea, or the sensation of choking (Zunyou, Sheng, Zhaoc and Zhihua 2011). When patients present with these somatic symptoms, for which no underlying medical etiology can be established, clinicians should consider an anxiety disorder as the cause. In addition to somatic complaints, patients with anxiety disorders often present with fear, worry, insomnia, impaired concentration and memory, diminished appetite, rumination, compulsive rituals, and avoidance of situations that make them anxious (Manama, Kimberly &Berzin, 2012). When anxiety symptoms are severe or persistent, patients may have an anxiety disorder. These disorders include panic

disorder, generalized anxiety disorder, obsessive-compulsive disorder, and post-traumatic stress disorder (PTSD) (Mellins&Malee, 2013).

Post-traumatic stress disorders

Lifetime prevalence of trauma exposure and PTSD is high among adults living with HIV/AIDS. Trauma causes inferior health functioning, inferior quality of life, increased bed disability and hospital stay and higher number of ER visits (Ibanda, 2010). Post-traumatic stress disorders can be detected through the following symptoms; recurrent and distressing recollections (images or thoughts), recurrent and distressing dreams about the event, acting or feeling as if the event were recurring (i.e. illusions, dissociative episodes, flashbacks, hallucinations), intense psychological distress upon exposure to internal or external cues and physiological reactivity or arousal upon exposure (Manama, Kimberly &Berzin, 2012).

2.2 Socio-demographic factors influencing mental disorders among PLWHA

Socio-demographics are personal characteristics used to evaluate and collect data on people in a given population (Bhandari, Taneja, Mazumder&Bahl, 2013).Socio-demographic factors are important because if we believe that health is genetically, biologically, ecologically, culturally and socially determined, then gender must be recognized as being one of these determinants as it is interconnected with biology and the socio-cultural factors that affect health (Ahmed, Adams, Chowdhury &Bhuiya, 2012). Once it is established that gender does play a role in health, the focus can be taken away from 'gender' per se and turned toward the social divisions of the sexes, so called 'gender relations' (World Health Organization, 1998). It has been found that women are more likely to delay health-seeking and treatment, particularly for health conditions that are more prone to carry social stigma, such as tuberculosis (Fienrich&Jellema, 2013).

HIV infected individuals often have difficulties telling others about their status. For disclosure to happen, it depends on several factors which include age, socio-economic status, level of education, marital status, social relations, knowledge, cultural factors and acquaintance on the importance of HIV disclosure. In a study that was conducted in Guru TegBahadur Hospital and University College of Medical Sciences, Delhi. One hundred and sixty patients were interviewed using a questionnaire containing factors that affect depression. CES-D (Center for Epidemiologic Studies – Depression) scale was used to measure depression. The prevalence of depression

increased with the severity of symptoms (Ntseane, 2014). The unemployed, uneducated, unmarried, belonging to joint families, having no or low family income, migrants, having indifferent or poor relationship with spouse, poor social support and had visited commercial sex workers had a greater prevalence of depression. The rate of depression in patients with HIV/AIDS is very high. Detecting depression early and treating it goes a long way in improving the compliance to treatment as well as quality of life (Bahatia, 2014). Demographic characteristics assessed include age, sex, ethnicity, marital status, education, job, monthly income, and sexual orientation. Demographics is measured using the following attributes;

Age

Age is a factor associated with health (Chung, Zenilman & Hanh, 2014). Age can be considered a factor of greater vulnerability, as with children under five years or the elderly, or greater robustness, or because the age group 18 to 25 years is more likely to been gaging in higher risk behaviours such as sexual activity, and alcohol, tobacco and other drug use. The effects of age can be due to differences in socio-economic status as defined by employment, education and income (Fienrich & Jellema, 2013), as well as greater economic dependency, poor housing, loneliness and lowered self-esteem (Ntseane, 2014). The elderly are often unable to access adequate health care which can contribute to their poor health status (Waweru et al., 2013). This can be a concern in developed countries and the less developed (Fienrich & Jellema, 2013).

Gender

Gender has often been used interchangeably with 'sex'. 'Gender' is a social construct that refers not only to the biological 'sex' differences between men and women, but to the different roles and expectations, behaviours and constraints that are placed upon an individual by culture and society, by virtue of their sex (Chung, Zenilman&Hanh, 2014). Many health indicators for adults exhibit considerable gender differences according to an individual's social position and role (Borrell, Benach&Rohlfs, 2014). As these issues are being addressed in industrialized countries, there is recognition of the specific health needs of women and the complex nature of the determinants of health for both women and men (Ntseane, 2014).

Marital status

It has been reported that women with long standing relations are more likely to disclose their status than those of shorter duration or who had multiple sexual partners (Dressler, Balieiro& dos Santos, 2011). Similarly, other studies asserted that clients who are not married and those who have fewer sexual partners, less than two in a year, are more likely to disclose their HIV positive status than those who have many sexual partners (Borrell, Benach & Rohlfs, 2014). Additionally, women with more than one sexual partner are more likely to have disclosed their HIV status than those with only one sexual partner (Ahmed, Tomson, Petzold & Kabir, 2015).

Level of Education

A key socio-cultural determinant of health is education (Ahmed, Adams, Chowdhury &Bhuiya, 2012). Again it is difficult to separate education from literacy and other indicators that are regularly used as convenient markers of socio-economic status. Available data in all countries points to the relationship between the risk of disease and lower levels of education (Dressler, Balieiro& dos Santos, 2011). Occurrence of illness is significantly lower in groups with higher education, especially among men, but there was no difference between occupational and economic groups in Vietnam (Ntseane, 2014). The World Bank views the two as interlinked and regard the "economic and social benefits of education for girls and women as a form of human capital investment" (cited in Waweru et al., (2013), p. 650) as well as poverty reduction, specifically in Africa (Ntseane, 2014).

Economic status

Many studies identify economic status as the most significant predictor of service use (Fienrich&Jellema, 2013) and how income affects the level to which health care facilities are sought and used (Buor, 2003, p. 296). While often the decision to seek health care is based upon the cost as compared to the perceived benefit (Chung, Zenilman&Hanh, 2014). According to Buor (2003) the ability to pay determines the use of health services. A lack of finance seriously affect health care seeking (Dressler, Balieiro& dos Santos, 2011), so although the willingness to pay for services may be there (Ntseane, 2014), the means to do so, may not. Not surprisingly low income has been found to be a barrier to health seeking and can create an overwhelming financial burden for some (Fienrich&Jellema, 2013).

2.5.1 Institutional Factors influencing mental disorders among PLWHA

The people living with HIV Stigma Index was used to measure stigma and discrimination, and a short version of general health questionnaire (GHQ-12) was used to measure mental disorders. Multivariate logistic regression analysis was conducted. The reported experiences of discrimination in communities in the past 12 months ranged from 0.8% for reports of being denied health services to 42.3% for being aware of being gossiped about. Internal stigma was also common ranging from 2.8% for avoiding going to a local clinic and/or hospital for deciding not to have (more) children (Siyan et al., 2015). The proportions of PLWHIV who reported fear of stigma and discrimination for fear of being physically assaulted for fear of being gossiped about. AIDS-related stigma and discrimination among PLWHIV in Cambodia are common and may have potential impacts on their mental health conditions (Siyan et al., 2015). These findings indicate a need for community-based interventions to reduce stigma and discrimination in the general public and to help PLHIV to cope with this situation. Institutional factors are measured using the following attributes.

Presence of drugs

The presence of antiretroviral therapy (ART) has greatly improved the morbidity, and decreased the mortality associated with HIV infection. The benefits of ART, however, are typically contingent upon excellent ART adherence and persistence in order to achieve suppression of HIV-1 RNA levels and an increase in CD4 T cell lymphocytes. Suboptimal adherence to antiretroviral therapy is strongly related to viral proliferation drug resistance, disease progression and death. Factors that can impair adherence to ART include drug addiction, alcohol use disorders, low socioeconomic status, social stigma, neurocognitive disorders, and mental disorders.

Waiting time

The waiting time the patient takes while waiting for the health services determines how often he/she receives the service. In absence/insufficiency of the drugs, the patients ends ups losing the patience, becomes depressed hence mental illness of PLWHA. Therefore there is need to respect the patient's time and provide at most attention in the health facilities. This encourages the patients to have a positive attitude on the epidemic.

Counseling and Testing

Counselling provides the patient with information on the technical aspects of testing and the possible personal, medical, social, psychological, legal and ethical implications of being diagnosed as either HIV positive or HIV negative. The purpose of pre-test counselling is further to find out why you want to be tested, the nature and extent of your previous and present high-risk behaviour, and the steps that need to be taken to prevent you from becoming infected or from transmitting HIV infection. The questions asked during counselling provide the counsellor with an opportunity to ascertain your perceptions of your own high-risk behaviour, and allows you to assess whether you intend to be tested and whether your fears are realistic or if you are unnecessary concerns.

Training

If mental health is to be effectively integrated into primary health care in low income countries like India then grass-roots workers need to acquire relevant knowledge and skills to be able to recognise, refer and support people experiencing mental disorders in their own communities. There is an influence of institutional factors on mental illness in health care settings because institutional factors affect discrimination toward persons with HIV/AIDS. A representative sample of 1101 Chinese service providers was recruited in 2012, including doctors, nurses, and laboratory technicians. Multivariate analyses revealed that respondents' general view of persons living with HIV/AIDS and their perceived levels of support from their institutions regarding protection procedures were both important predictors for discrimination intent (Siyan, Pheak, Suong, Kouland, Brody and Tuot, 2015).

Perceived institutional support varied according to age, gender, ethnicity, and training background. A better understanding of HIV-related discrimination in health care settings requires consideration of both individual and institutional factors (Zunyou et al., 2010).Recent studies have confirmed these findings and includes other mental health outcomes such as anxiety, stress, or post-traumatic stress disorders (PTSD) in different populations of PLWHIV in different countries around the world including mainland China, India, South Africa, the United States, and several other countries (Siyan et al., 2015).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the study design, the study population, sample size calculation, sampling procedure, data collection methods, data collection tools, measurement of tools, reliability and validity, quality control measures, ethical considerations, data analysis and limitations of the study.

3.1 Research Design

The study design was descriptive. Both qualitative and quantitative approaches used were for data collection.

3.2 Study Population

The study population comprised of in and out patients receiving HIV treatment from the ART clinics in the sampled health facilities.

Inclusion criteria

i. All patients with HIV/AIDS aged 15-75 years who use the three sampled health facilities and consented.

ii. Only persons with HIV/AIDS found at the time of data collection.

Exclusion criteria

i. Patients without HIV/AIDS who use the three sampled health facilities and consented.
ii. All patients with HIV/ AIDS aged 15-75 years present at the time of data collection that did not consent.

3.3 Sample Size

The sample size was calculated using the Krejcie and Morgan table(1970) for determining sample size as this gave a practical ratio according to the approximate number of patients who attend ART clinics in the respective sampled health facilities. (See attached Krejcie and Morgan table (1970)).

Table 1: Approximate number of registered PLWHA attending ART clinics in the sampled health facilities.

Health facility	**Approximate registered number of patients**	**Sample size** (Krejcie and Morgan table)
KIU-TH	400	196
Bushenyi Health center IV	800	265
Total	**1200**	**291**
Sample size for the study derived from the total of the two health facilities = 291		

3.4 Sampling Procedure

The health facilities were purposively sampled and the respondents who satisfied the inclusion criteria and attended the two health facilities (Bushenyi Health center IV and KIU-TH) were randomly selected after they were properly informed of the study and have given consent. The respondents who consented were taken to a separate area and the questionnaires were administered to them for their responses.

3.5 Data collection Methods

Data was collected using a structured self-administered questionnaire. The interviewers read the questions exactly as they appear on the questionnaires to the respondents to give his/her response. The questionnaires were designed according to the theme and objectives of the research. The questionnaire included both open and closed ended questions. A five point rating scale was developed (1= not at all, 2= to a small extent, 3= to a moderate extent, 4= to a large extent and 5= to a very large extent) because the scale has a fairly robust characteristic. It allowed respondents to respond boldly and frankly to questions and enables collection of vast amounts of data in a short time and was less expensive (Amin, 2005).

3.6 Quality Control

3.6.1 Training of data collection team

The data collection team comprised of two research assistants who were diploma students of clinical medicine. The assistants were recruited based their experience of research and their ability to speak local language and interpret the questionnaire accordingly. The assistants were

trained for two days on administration of questionnaires, interviewing techniques and translating of the questions to the local language.

3.6.2 Pre-testing of questionnaires

Pre-testing of questionnaires was conducted over a period of two days in KIU-TH, Ishaka. The questionnaire was administered to 20 PLWHA. This was done to impart practical experience to the team in administering questionnaires. The ambiguities were noted and necessary corrections made in the process of finalizing the questionnaires and procedures.

3.7 Validity and reliability of research instruments

3.7.1 Reliability

The researcher computed the reliability for multi-item opinion questions using SPSS computer software. The items were tested using Cronbach Alpha and it gave a reliability figure of 0.79 which is above the recommended reliability of 0.7 (Kaplan and Saccuz, 1993), it was accepted as a valid tool for data collection.

3.7.2 Validity

Validity of the questionnaire was obtained by presenting it to at least two professional people, including the researcher's supervisor because according to Amin (2005) content and construct validity is determined by expert judgment. The validity of the questionnaire was calculated by using the Content Validity Index formulae and when it gives a figure of 0.7, it was accepted as a valid tool for data collection. Kathuri and Palls (1993) argued that instruments with validity confident of at least 0.7 are accepted as valid in research.

3.8 Data process and analysis

Data from questionnaires was compiled, sorted, edited, classified and coded into a coding sheet and analyzed using a computerized data analysis package known as Statistical Package for Social Science 20.0. Descriptive statistics, such as mean, frequency, cross-tabulation, and percentage was used when necessary. The results were presented in tables as appropriate. Using Pearson correlation coefficient of determination, inferential statistics like correlations was used to

illustrate the existence of the relationship between variables (if any), while multiple regression was used to explain how the independent variables affect the dependent variable. Qualitative data was sorted, categorized and conceptualized in a systematic way to uncover patterns of mental disorders with person living with HIV/AIDS and Saphilo's, (2001) tool for analyzing it.

3.9 Ethical considerations

The letter of introduction for data collection was received from the Dean of the Faculty of Clinical Medicine & Dentistry of KIU to the District Health Officer (DHO) for permission to collect data. Approval was given and the researcher and the team were able to access the sampled health facilities and the respondents. Each respondent was informed about the purpose of the study then an informed consent was obtained from each participant and those who consented were enrolled for the study.

3.10 Limitations of the study

The researcher anticipates encountering the following limitations

(i) **Sensitivity of information**: Some respondents were reluctant to respond to some of the questions. The researcher however assured them of maximum confidentiality so they can provide all the required information.

(ii) **Information bias**: The study presumed challenges may arise from information bias when the respondents prefer not to supply correct information example when administering questionnaire to the respondents, this was overcome by emphasizing on the confidentiality of the information verbally and inclusion in the questionnaire.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the results of the study objectives. Of the 291 expected respondents for this study, only 180 responded. The results are presented in tables as shown below.

4.1 Prevalence of the mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district

Table 2: Factor Analysis of Mental Disorders among PLWHA

Variables	**Anxiety Disorders**	**AIDS Phobia**	**Depression**
I sometimes experience shortness of breath, chest pain, racing/pounding heart and dizziness	**.936**		
I also experience diaphoresis, numbness or tingling, nausea or the sensation of choking	**.914**		
I often experience impaired concentration, ruminations and compulsive rituals	**.881**		
I got unfounded fears of having contracted AIDS		**.902**	
I even to produce bizarre attempts to avoid the illness.		**.895**	
AIDs phobia can lead to mental illness to patients with HIV/AIDS		**.889**	
There is depression amongst HIV patients			**.804**
Loss of interest or pleasure in everything is a sign of depression			**.774**
I can get feelings of guilt or low self-worth			**.653**
Eigen Value 4.856	**2.202**	**1.534**	**1.120**
Variance %	**42.398**	**29.536**	**21.566**
Cumulative	**42.398**	**71.934**	**93.5**

The results in table 1 above show the factor analysis results of Prevalence of mental disorders among PLWH, four factors were extracted and the first component (AIDs phobia) explained Prevalence of mental disorders better with 42.4%, the second component (Anxiety disorders) also explained more of Prevalence of mental disorders among PLWH with 29.4%, followed by Depression which least explained Prevalence of Mental Disorders among PLWHA with 21.7%. And other attributes didn't pass the test.

Explanation:

The factor analysis results of Prevalence of mental disorders among PLWH under AIDs phobia attribute are explained that; I sometimes experience shortness of breath, chest pain, racing/pounding heart and dizziness 94%, I also experience diaphoresis, numbness or tingling, nausea or the sensation of choking 91%, and that I often experience impaired concentration, ruminations and compulsive rituals 88%.

Under Anxiety disorders attribute, the results are explained that; I got unfounded fears of having contracted AIDS 90%, I even to produce bizarre attempts to avoid the illness 89% and that the AIDs phobia can lead to mental illness to patients with HIV/AIDS 89%.

Lastly under Depression attribute, the results are explained that; there is depression amongst HIV patients 80%, Loss of interest or pleasure in everything is a sign of depression 77% and that I can get feelings of guilt or low self-worth 65%.

4.2 Socio-demographic factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district.

Table 3: Socio-Demographic Data of the PLWHA

Variable	Category	Frequency (n=180)	Percentage (%)
Gender	Male Female	68 112	37.8 62.2
Age (Years)	21-30 31-40 41-50 > 50	19 51 73 37	10.5 28.3 40.6 20.6
Marital status	Single Married	46 113	25.6 62.7

	Divorced Separate	9 12	5.0 6.7
No. of years the respondents had been with hospital	1 1-2 2-4 4-6 >6	10 15 32 53 70	5.6 8.3 17.8 29.4 38.9
Level of education	Primary Secondary Tertiary None	73 62 15 30	40.6 34.4 8.3 16.7
Occupation	Full housewife Self-employed(both male & female) Civil servant Others	71 80 14 15	39.4 44.4 7.8 8.4
Parity	 1-3 4-6 >6 None	 80 47 14 39	 44.4 26.1 7.8 21.7

Results in Table 2 above show that majority 112 (62.2%) of the respondents were females, 113 (62.7%) married and most 73 (40.6%) fell in the age bracket of 41-50 years. Also, most 73 (40.6%) had attained primary education, self-employed 80 (44.4%) and have 1-3 children (44.4%).

4. 2.1: The Regression analysis of Socio-demographic and institutional factors on the prevalence of Mental Disorders among persons living with HIV/AIDs

Regression analysis was used to examine the level to which Socio-demographic factors and Institutional influences determine the Mental Disorders among persons living with HIV/AIDs

Table 4: Regression model for Socio-demographic factors and Institutional influences and Mental Disorders among PLWHA

Model	Un-standardized coefficients		Standardized coefficients		
	B	**Std. Error**	**Beta**	**T**	**Sig**
Constant	84.033	67.430		1.246	.253
Socio-demographic factors	.440	.444	.370	.991	.355
Institutional influences	.093	.237	.146	.390	.708
R= 451; R Square =0.204, Adjusted R- square = 0.024, F= 0.895, Sig = 0.451					

Results in table 3 above show (R= 0.451) a combination of Socio-demographic factors and Institutional influences in assessing the level to which they can predict the level of Mental Disorders among persons living with HIV/AIDs. These variables explained 20.4% of the variance of Mental Disorders (R Square =.663). The most influential predictor of Mental Disorders was Socio-demographic factors (β = .370, Sig.355). Institutional influences is less likely to influence Mental Disorders since it portrays a low compared to Socio-demographic factors with a significance (β = .146, Sig. 708) in the model.

4.2.2 Factor Loadings of Socio-demographic factors

Table 5: Factor Analysis of Socio-demographic factors

Variables	Education	Economic Status	Gender
The risk of disease increases because of the lower levels of education	**.932**		
Education is a key socio-cultural determinant of health	**.865**		
Occurrence of illness is significantly lower in groups with higher education	**.796**		
Income affects the level to which health care facilities are sought and used		**.916**	
My decision to seek health care is based upon the cost charged on the drugs		**.883**	
I don't always consider the perceived benefits of the drugs but rather the cost		**.876**	
Women receive different treatment from men even when they are suffering from the same diseases			**.685**
The hospital is responsive towards the needs of women (Does it provide them with special family planning methods?)			**.776**
Women are vulnerable to mental disorders in families			**.609**
Eigen Value	**2.102**	**1.063**	**1.016**
Variance %	**45.750**	**23.136**	**22.114**
Cumulative	**45.750**	**68.886**	**91.00**

The results in table 4 above show the factor analysis results of Socio-demographic factors, four factors were extracted and the first component (Education) explained Socio-demographic factors better with 45.8%, the second component (Economic Status) also explained more of Socio-demographic factors with 23.1%, followed by Gender which was the least in explaining Socio-demographic factors with 22.1%. And other attributes didn't pass the test.

Explanation:

The factor analysis results of Socio-demographic factors under Education is explained that; the risk of disease increases because of the lower levels of education (93%), Education is a key socio-cultural determinant of health (87%) and that Occurrence of illness is significantly lower in groups with higher education (80%).

Under Economic Status attribute, the results were explained that; Income affects the level to which health care facilities are sought and used 92%, the decision to seek health care is based upon the cost charged on the drugs 88% and that I do not always consider the perceived benefits of the drugs but rather the cost 88%.

Under Gender, the result were explained that; Women receive different treatment from men even when they are suffering from the same diseases 69%, The hospital is responsive towards the needs of women (Does it provide them with special family planning methods?) 79% and that Women are vulnerable to mental disorders in families 61%.

4.3 Institutional factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district.

Table 6: Factor Analysis of Institutional influences

Variables	Presence of Drugs	HIV Counseling and Testing	Training of HWs	Waiting Time
The presence of antiretroviral therapy has greatly improved the morbidity in the hospital	**.888**			
I adherence and persist in order to achieve suppression of HIV-1 RNA levels and an increase my CD4 T cell	**.764**			
The hospital has got enough drugs for mental cases	**.642**			
Counselling provides me with information on the technical aspects of testing		**.876**		
It provides me with the possible personal, medical, social, psychological, legal and ethical implications		**.753**		
With pre-test counselling, I find out why you want to be tested		**.859**		
The health workers have relevant knowledge about the mental disorders			**.747**	
The health workers have relevant skills to be able to recognise mental disorder cases			**.716**	
The health workers have relevant skills to support people experiencing mental disorders			**.687**	
Good attention encourages me to have a positive attitude on the epidemic.				**.698**
The doctors respect my time and provide at most attention in the hospital				**.627**
The waiting time I take while waiting for the health services determines how I receive the service				**.564**
Eigen Value 5.84	**2.034**	**1.658**	**1.145**	**1.003**
Variance % .374	**31.171**	**26.785**	**17.173**	**14.371**
Cumulative	**31.171**	**57.956**	**75.129**	**89.5**

The results in table 5 show the factor analysis results of Institutional influences, four factors were extracted and the first component (Presence of Drugs) explained Institutional influences better with 31.2%, the second component (HIV Counseling and Testing) also explained more of Institutional influences with 26.8%, followed by Training of HWs with 17.2% and lastly Waiting Time which least explained Institutional influences with 14.4%.

Explanation:

The factor analysis results of Institutional influences under Presence of Drugs attribute are explained that; The presence of antiretroviral therapy has greatly improved the morbidity in the hospital 89%, there is gathering and documenting information and data management 91% and that there are communication Skills: writing, Speaking and Oral presentations 90%.

Under HIV Counseling and Testing attribute, they are explained that; Counseling provides me with information on the technical aspects of testing 88%, It provides me with the possible personal, medical, social, psychological, legal and ethical implications of being diagnosed as either HIV positive or HIV negative 75% and that with pre-test Counseling, I find out why you want to be tested 69%.

With Training of HWs attribute, the results were explained that; the health workers have relevant knowledge about the mental disorders 75%, the health workers have relevant skills to be able to recognize mental disorder cases 72% and that the health workers have relevant skills to support people experiencing mental disorders 69%.

Lastly under Waiting Time attribute, they are explained that; Good attention encourages me to have a positive attitude on the epidemic 69%, the doctors respect my time and provide at most attention in the hospital 63% and that the waiting time I take while waiting for the health services determines how I receive the service 56%

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter presents the discussions of the findings according to the specific objectives which were set to be achieved in this study.

5.1 Prevalence of the mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district

The Prevalence of mental disorders among PLWH under AIDs phobia attribute are explained that; I sometimes experience shortness of breath, chest pain, racing/pounding heart and dizziness 94%, I also experience diaphoresis, numbness or tingling, nausea or the sensation of choking 91%, and that I often experience impaired concentration, ruminations and compulsive rituals 88%.

Under Anxiety disorders attribute, the results are explained that; I got unfounded fears of having contracted AIDS 90%, I even to produce bizarre attempts to avoid the illness 89% and that the AIDs phobia can lead to mental illness to patients with HIV/AIDS 89%.

Lastly under Depression attribute, the results are explained that; there is depression amongst HIV patients 80%, Loss of interest or pleasure in everything is a sign of depression 77% and that I can get feelings of guilt or low self-worth 65%.

5.2 Socio-demographic factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district.

The results of this study show that there is a significant positive relationship between Socio-demographic factors and prevalence of Mental Disorders among PLWHA($r = 0.432$, P-value < 0.01).This implied that Socio-demographic factors like age, socio-economic status, level of education, marital status, social relations, knowledge, cultural factors and acquaintance on the importance of HIV disclosure had influence on the prevalence of Mental Disorders among PLWHA in Bushenyi district. The results agrees with Ahmed, Adams, Chowdhury &Bhuiya, (2012) who said that the health is genetically, biologically, ecologically, culturally and socially determined, then gender must be recognized as being one of these determinants as it is

interconnected with biology and the socio-cultural factors that affect health. World Health Organization, (1998) added that once it is established that gender does play a role in health, the focus can be taken away from 'gender' per se and turned toward the social divisions of the sexes, so called 'gender relations. The result also agrees with Fienrich, & Jellema, (2013) who says that gender is a critical determinant of mental health and mental illness. The morbidity associated with mental illness has received substantially more attention than the gender specific determinants and mechanisms that promote and protect mental health and foster resilience to stress and adversity. Chung, Zenilman & Hanh, (2014) add that gender determines the differential power and control men and women have over the socioeconomic determinants of their mental health and lives, their social position, status and treatment in society and their susceptibility and exposure to specific mental health risks.

For Collins & Patel, 2012), gender differences occur particularly in the rates of common mental disorders - depression, anxiety and somatic complaints. These disorders, in which women predominate, affect approximately 1 in 3 people in the community and constitute a serious public health problem. Women had more anxiety-mood disorders than men and men more externalizing-substance disorders than women in all cohorts and countries. Berhane & Wall, (2012) say that although gender differences were generally consistent across cohorts, significant narrowing was found in recent cohorts for major depressive disorder (MDD) and substance disorders.

Most of the respondents in this study fell under the age of 41-50 category in assessing the influence of Age on Mental disorders amongst PLWHA. This means that mental illnesses amongst people with HIV were more evident within this category amongst the respondents examined. The results are supported by Fienrich, &Jellema, (2013) who said that with regard to getting older, as age increased, so did open-mindedness and a pro-integration attitude relative to persons with mental illness; on the other hand as age increased, community mental health ideology decreased. Dressler & Santos, (2011) add that as attitudes of open-mindedness and pro-integration improved, so did attitudes representing community mental health ideology. Furthermore, Cournos& Sullivan, (2012) says that as fear and avoidance increased, attitudes of open-mindedness and pro-integration increased but also the intention to interact with persons subject to mental illness was improved**.**

5.3 Institutional factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district.

The results of this study indicated a significant positive relationship between Institutional influences and Mental Disorders among persons living with HIV/AIDs ($r = 0.427$, P-value < 0.01).This implied that Institutional influences through factors like presence of drugs, waiting time, HIV Counselling and testing, support from health workers and training of health workers influenced the prevalence of Mental Disorders among PLWH in KIUTH in Ishaka and the whole Country as a whole. The results are in line with Siyan, Pheak, Suong, Kouland, Brody and Tuot, (2015) who said that multivariate analyses revealed that respondents' general view of persons living with HIV/AIDS and

The factor analysis results of Institutional influences under Presence of Drugs attribute are explained that; The presence of antiretroviral therapy has greatly improved the morbidity in the hospital 89%, there is gathering and documenting information and data management 91% and that there are communication Skills: writing, Speaking and Oral presentations 90%.

Under HIV Counseling and Testing attribute, they are explained that; Counseling provides me with information on the technical aspects of testing 88%, It provides me with the possible personal, medical, social, psychological, legal and ethical implications of being diagnosed as either HIV positive or HIV negative 75% and that with pre-test Counseling, I find out why you want to be tested 69%.

With Training of HWs attribute, the results were explained that; the health workers have relevant knowledge about the mental disorders 75%, the health workers have relevant skills to be able to recognise mental disorder cases 72% and that the health workers have relevant skills to support people experiencing mental disorders 69%.

Lastly under Waiting Time attribute, they are explained that; Good attention encourages me to have a positive attitude on the epidemic 69%, the doctors respect my time and provide at most attention in the hospital 63% and that the waiting time I take while waiting for the health services determines how I receive the service 56%. their perceived levels of support from their institutions regarding protection procedures were both important predictors for discrimination intent. Perceived institutional support varied according to age, gender, ethnicity, and training

background. Zunyou et al., (2010) added that better understanding of HIV-related discrimination in health care settings requires consideration of both individual and institutional factors.

This implied that among the attributes of Institutional influences; Presence of Drugs explained Institutional influences better with 31.2%, the second component (HIV Counseling and Testing) also explained more of Institutional influences with 26.8%, followed by Training of HWs with 17.2% and lastly Waiting Time which least explained Institutional influences with 14.4%.So whenever implementing the strategies of Institutional influences for reduction of Prevalence of mental disorders among PLWH in Uganda, there is need to consider the Presence of drugs and HIV Counseling and Testing in the hospital since they proved to be the most determinant attributes of Institutional influences in Uganda. The results are supported by the model of (Hoskins, (2011) who measured Institutional influence is measured using attributes like presence of drugs, waiting time, HIV counseling and testing, support from health workers and training of health workers.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter highlights the major conclusion and recommendations of the study. The findings are outlined in direct response to the specific objectives. Recommendations have been provided to incorporate policies to prevent and reduce the prevalence of mental illness among people living with HIV/AIDS.

6.1 Conclusions

6.1.1 Prevalence of the mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district

The Prevalence of mental disorders among PLWH is attributed by AIDs phobia (94%), Anxiety disorders attributes (90%) and depression attributes (80%).

6.1.2 Institutional factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district.

The Socio-demographic factors which influence mental disorders among persons living with HIV/AIDs were education economic status and gender. The risk of disease increases because of the lower levels of education (93%), Education is a key socio-cultural determinant of health (87%) and that Occurrence of illness is significantly lower in groups with higher education (80%). Income affects the level to which health care facilities are sought and used 92%, the decision to seek health care is based upon the cost charged on the drugs 88% and that I do not always consider the perceived benefits of the drugs but rather the cost 88%. Women receive different treatment from men even when they are suffering from the same diseases 69%, The hospital is responsive towards the needs of women. 79% and that Women are vulnerable to mental disorders in families 61%.

6.1.3 Institutional factors influencing mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district.

There is a significant positive relationship between Institutional influences and Mental Disorders among persons living with HIV/AIDs ($r = 0.427$, P-value < 0.01).This implied that Institutional influences through factors like presence of drugs, waiting time, HIV Counselling and testing,

support from health workers and training of health workers influenced the prevalence of Mental Disorders among PLWH in Bushenyi district.

6.2 Recommendations

Basing on the study findings and the conclusions, the researcher derived the following recommendations:

6.2.1 Prevalence of the mental disorders among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district

i. The need for a combined whole some approach for relationship between socio-demographic factors and the prevalence of Mental Disorders among persons living with HIV/AIDs because health is genetically, biologically, ecologically, culturally and socially determined, then gender must be recognized as being one of these determinants as it is interconnected with biology and the socio-cultural factors that affect health.

6.2.2 The Socio-demographic factors among persons living with HIV/AIDs attending health facilities in Bushenyi, Bushenyi district.

i. The studies recommends training of health workers and support them as well on how to treat patients by empowering them with relevant skills on how to reduce mental disorders and supporting patients with mental illness. This can be done through holding fora and workshops to sensitize them on new methods of caring for mental disordered patients, however this should be in line with all the social demographic factors.

ii. The study recommends an improved and morbidity presence of drugs in the mental institutions in order to adhere and meet the demand and usage of drugs in hospitals thus reducing cases of mental disorders among people living with HIV/AIDS. All this attention leads to spreading of positive attitude on the scourge and when it's combined with counseling provides a possible personal psychological diagnosis thus reducing the transmission.

ii. There is need to reduce on division of sexes among patients and equally care for all patients whether young, female or male, old and young in order to reduce on the population of persons living with mental disorders and HIV/AIDS. Reduced segregation

improves the patients' reliability and survival because of the rendered health services provided.

6.2.3 The Institutional influences and the prevalence of Mental Disorders among persons living with HIV/AIDs

i. The study recommends need for community-based interventions to reduce stigma and discrimination in the general public and to help PLHIV to cope with this situation. The knowledge about HIV/AIDS transmission, antiretroviral therapy, and disease status all can be curbed using a comprehensive approach where by all sectors of the community are involved thus reducing prevalence of mental disorders among people living with HIV/AIDS.

6.3 Areas for further research

The study recommends further study on examining the other risk factors and effects associated with prevalence of Mental Disorders among persons living with HIV/AIDs in both rural and urban communities of Uganda.

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APPENDICES

APPENDIX 1: CONSENT FORM

My name is…….I am a student of Kampala International University currently in my last semester in the Faculty of Clinical Medicine & Dentistry. As part of the requirements for the fulfillment of the programme I am conducting a research study titled: **factors influencing mental disorders among persons living with HIV/AIDS attending health facilities in Bushenyi, Bushenyi district.**

I hereby seek your consent to be part of this study. Your responses will be kept strictly confidential for all matters and it will only be used for the purpose of the study mentioned above. Your name will not be mentioned to protect your confidentiality.

You have a right to answer or not for questions which might be inconvenient for you. If you have any questions about the study, you may raise.

Thank you in advance for your cooperation.

Consent acknowledgement by the respondents.

I agree/ I don't agree to participate in this research voluntarily ----------

Interviewer name ----------signature……..

Appendix II : QUESTIONNAIRE

Please tick your selected option

Section A: Bio data

1. Gender

Male	Female
1	2

2. Age Group

21 – 30 Yrs	31 – 40 Yrs	41 – 50 Yrs	Over 50 Yrs

3. Marital status

Single	Married	Divorced	Separated	Others
1	2	3	4	5

4. Number of Biological children

0	1-3	4-5	5+

5. Number of dependants

0	1-3	4-5	5+

6. Level of education

None 1	Primary 2	Secondary 3	Certificate 4	Tertiary 5	Masters 6

7. Income level (UGX Per month)

Less than 100,000	100,000-500,000	500,000-1,000,000	Above 1,000,000
1	2	3	4

8. Number of years spent receiving care from the hospital

Less than 1 year	1-2 years	2-4 years	4 -6 years	Over 6 years

Section B: Socio-demographic factors

Instructions: Listed here below are statements regarding Socio-demographic factors. Please indicate the extent to which you agree with each statement by inserting a number that reflects your rating using a scale where **1= Not at all, 2=to a small extent, 3= to a moderate extent, 4= to a large extent, 5=to a very large extent**

	Please indicate the degree to which you agree with the following statements. Tick the scale	***No extent***	***Small extent***	***Moderate extent***	***Great extent***	***Very great extent***
		1	**2**	**3**	**4**	**5**
	Gender					
1	Women receive different treatment from men even when they are suffering from the same diseases					
2	The hospital is responsive towards the needs of women (Does it provide them with special family planning methods?)					
3	Women are vulnerable to mental disorders in families					
4	Gender influences the rate of mental disorders of people with					

	HIV/AIDS					
5	There are high number of female mental cases in the hospital					
	Age					
6	The age group 18 to 25 years is more likely to engage in higher risk behaviours that can lead to contracting HIV					
7	The adults are able to make mature decisions					
8	The elderly are often unable to access adequate health care which contributes to their poor health status					
9	Age is influenced by the differences in socio-economic status of people					
10	The greater economic dependency, poor housing, loneliness and lowered self-esteem influences the appearaces of people					
	Economic status					
11	Income affects the level to which health care facilities are sought and used					
12	My decision to seek health care is based upon the cost charged on the drugs					
13	I don't always consider the perceived benefits of the drugs but rather the cost					
14	My ability to pay for the medication determines the use of health services					
15	Lack of finances seriously affects health care seeking					
	Marital status					
16	Women with long standing relations are more likely to disclose their status than those of shorter duration					
17	Women with single partners are more likely to disclose their status than those with multiple sexual partners					
18	Clients who are not married are more likely to disclose their HIV positive status					
19	I disclosed my marital status because I love my children					

20	I disclosed my marital status because I love my husband					
	Education					
21	The risk of disease increases because of the lower levels of education					
22	Education is a key socio-cultural determinant of health					
23	Occurrence of illness is significantly lower in groups with higher education					
24	The illiterate people are so much affected by HIV/AIDS					
25	I don't know how to read the instructions on the drugs					

SECTION C: Institutional factors

	Please indicate the degree to which you agree with the following statements. Tick the scale	***No extent***	***Small extent***	***Moderate extent***	***Great extent***	***very great extent***
		1	**2**	**3**	**4**	**5**
	Presence of drugs					
1	The presence of antiretroviral therapy has greatly improved the morbidity in the hospital					
2	I adherence and persist in order to achieve suppression of HIV-1 RNA levels and an increase my CD4 T cell lymphocytes					
3	The hospital has got enough drugs for mental cases					
4	I am able to receive the drugs whenever I go to the hospital					
5	The presence of drugs in the health facility has reduced cases of mental disorders					
	Waiting time					
6	The waiting time I take while waiting for the health services					

	determines how I receive the service					
7	In absence of the drugs, I end up losing the patience					
8	Good attention encourages me to have a positive attitude on the epidemic.					
9	The doctors respect my time and provide at most attention in the hospital					
10	Patients don't complain on the time spent in the waiting rooms for Medicare					
	HIV counseling & testing					
11	Counselling provides me with information on the technical aspects of testing					
12	It provides me with the possible personal, medical, social, psychological, legal and ethical implications of being diagnosed as either HIV positive or HIV negative					
13	With pre-test counselling, I find out why you want to be tested,					
14	I get to know how to prevent myself from becoming infected or from transmitting HIV infection					
15	Pre-test counselling allows me to assess whether I intend to be tested					
	Training of H/workers					
16	The health workers have relevant knowledge about the mental disorders					
17	The health workers have relevant skills to be able to recognise mental disorder cases					

18	The health workers have relevant skills to support people experiencing mental disorders					
19	The hospital trains the health workers on mental disorders					
20	Training of H/workers helps reduce the mental disorders					
	Support from H/workers					
21	The health workers give enough support to the mental disorders patients					
22	The health workers help me go through my like positively					
23	The health workers have resources to support people experiencing mental disorders					
24	The hospital trains the health workers on how to support mental disorder patients					
25	Support from health workers helps reduce the mental disorders					

Section D: Mental disorders of PLWHA

	Please indicate the degree to which you agree with the following statements. Tick the scale	*No extent*	*Small extent*	*Moderate extent*	*Great extent*	*Very great extent*
		1	**2**	**3**	**4**	**5**
	AIDs phobia					
1	I get a fear that can often take control of my own life					
2	I had incorrect beliefs as to how HIV is transmitted					
3	I got unfounded fears of having contracted AIDS					
4	I even to produce bizarre attempts to avoid the illness.					
5	AIDs phobia can lead to mental illness to patients with HIV/AIDS					
	Depression					
6	There is depression amongst HIV patients					
7	Loss of interest or pleasure in everything is a sign of depression					
8	I can get feelings of guilt or low self-worth					
9	Sometimes I am disturbed sleep and loss appetite					
10	I get low energy and poor concentration					
	Anxiety disorders					
11	I sometimes experience shortness of breath, chest pain, racing/pounding heart and dizziness					
12	I also experience diaphoresis, numbness or tingling, nausea or the sensation of choking					
13	I often get fear, worry and insomnia					
14	I often experience impaired concentration, ruminations and compulsive rituals					
15	I try to avoid situations that make me anxious					

	Post-traumatic stress disorders					
16	I experience recurrent and distressing recollections (images or thoughts)					
17	I experience recurrent and distressing dreams about like illusions, dissociative episodes, flashbacks and hallucinations					
18	I get intense psychological distress upon exposure to internal or external cues					
19	I get intense psychological distress upon exposure to physiological reactivity or arousal upon exposure					
20	Trauma causes inferior health functioning, inferior quality of life					

Thank you very much for your time

APPENDIX III: WORK PLAN

Activity	**Time frame 2018**				**2019**				
	July to September		October to November	Dec.	January	February	March	April	May
Selection of topic/proposal writing									
Submission of proposal & correction									
Data collection/analysis									
Reporting writing									
Submission of research report									

APPENDIX V: BUDGET ESTIMATES OF THE STUDY

No.	ITEM	Quantity	Cost/Unit	Total cost
1.	Stationery	1 (ream)	15,000	15,000
2.	Printing & Binding	-	80,000	80,000
3.	Communication	-	50,0000	50,000
4.	Transport	-	100,000	100,000
5.	Lunch	10 days	10,000	100,000
6.	Research Assistants	2	100,000	200,000
7.	Miscellaneous	-	200,000	200,000
TOTAL				**745,000**

APPENDIX VI: INTRODUCTORY LETTER

KAMPALA INTERNATIONAL UNIVERSITY – WESTERN CAMPUS
EXPLORING THE HEIGHTS

P O BOX 71, ISHAKA UGANDA
Tel: +256 200923534
www.kiu.ac.ug

OFFICE OF THE DEAN
FACULTY OF CLINICAL MEDICINE & DENTISTRY

19/03/2019

Have no objection to the proposed study.
26/3/2019.

DISTRICT HEALTH OFFICER
BUSHENYI LOCAL GOVERNMENT

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: AKPANUMOH UBONGABASI EBONG (BMS/0030/141/DF)

The above named person is a fifth year student at Kampala International University pursuing a Bachelor of Medicine, Bachelor of Surgery (MBChB) Programme.

He wishes to conduct his student research in your community.

Topic: Factors influencing mental disorders among persons living with HIV/AIDS attending health facilities in Bushenyi district, Bushenyi district, western Uganda

Supervisor: Mr. Solomon Mbina

Any assistance given will be appreciated.

K.I.U TEACHING HOSPITAL
21 MAR 2019
W.Campus
DEDI/ASSOCIATE DEAN FCM&D

Yours Sincerely,

S-O Akib

Dr. Akib Surat
Deputy Executive Director/Assoc Dean FCM&D