PREVALENCE OF DEPRESSION AND SOCIO DEMOGRAPHIC CORRELATES AMONG ADULTS LIVING WITH HIV/AIDS ATTENDING AMPATH CLINIC AT KITALE COUNTY REFERRAL HOSPITAL

RUTH WAMBUI MWAURA

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DECLARATION

By Student

I hereby declare that this dissertation is my own original work submitted in fulfillment of the requirement to the University of Nairobi for the award of the Master of Science Degree in Clinical Psychology. I further declare that I have not submitted this dissertation to any other University or institution of higher learning for award of any other degree.

Signature …………………………   Date …………………………….

Name: Ruth Wambui Mwaura

H56/80081/2012

APPROVAL

This dissertation is submitted to the University of Nairobi for examination with our approval as the University Supervisors.

Signature…………………………..   Date…………………………….
Prof. Wangari M. Kuria,
MBchB (NRB), Mmed Psych (NRB), PhD (NRB)
Associate Professor,
Department of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi

Signature…………………………..   Date…………………………….
Prof. A. Obondo- B. A**.**
(Hons) Sociology (India), MSW (India), PDip. PSW (Manchester), PhD (Nairobi)
Associate Professor
Department of Psychiatry
School of Medicine
College of Health Sciences
University of Nairobi

DEDICATION

This study is dedicated to my loving late mum Margaret Mwaura, thank you for always believing in me Mama, to my loving family; Dad, Tash, Njeri, Shiko, Sue, Dave and MaryAnn and the entire Gathungu family for their overwhelming support, words of encouragement, patience and all the love during the duration of this course.

I also dedicate this study to the clients of AMPATH-Kitale.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS/ACRONYMS

AMPATH - Academic Model Providing Access to Healthcare

BDI - Beck Depression Inventory

CCC - Comprehensive Care Centre

KNH - Kenyatta National Hospital

HIV - Human Immunodeficiency Virus

AIDS - Acquired Immunodeficiency Syndrome

PLWA - Persons Living With HIV/AIDS

MDD - Major Depressive Disorder

WHO - World Health Organization

PTSD - Post Traumatic Stress Disorder

OPERATIONAL DEFINITIONS

Major Depressive Disorder

"According to the Diagnostic and Statistical Manual of Mental Disorders V (DSM V), Major Depressive Disorder (MDD) is defined as having an abnormal mood or a loss of all interest or pleasure which drastically interferes with social, occupation and other important areas of functioning. (American Psychiatric Association, 2013). Additionally, five of the following symptoms must be present during the depressed two weeks: unusual weight loss or a loss of appetite, uncommon weight gain or an increase in appetite; sleep disturbances, either insomnia or hypersomnia; activity disturbance; a general lack of energy; unusual guilt or self-reproach; trouble concentrating or indecisiveness; and thoughts of death or suicide. Depression cannot be due to physical illness, normal bereavement or bipolar disorder (American Psychiatric Association, 2013)."

HIV/AIDS

Human immunodeficiency virus infection and acquired immune deficiency syndrome is a spectrum of conditions caused by infection with the human immunodeficiency virus. Following initial infection, a person may not notice any symptoms or may experience a brief period of influenza like illness. Typically, this is followed by a prolonged period with no symptoms. As the infection progresses, it interferes more with the immune system, increasing the risk of common infections, and tumors that rarely affect people who have working immune systems. These late symptoms of infection are referred to AIDS (Longo., et al, 2015).

ABSTRACT

Background

Evidence indicate or suggests that depression is common among patients attending primary health care settings and this is more so in facilities involved in the management of PLWHA. Murray el al., (2010) estimated rates of depression among people living with HIV/AIDS to be 13%-47% globally. Identifying depression among PLWHA is important as depression has been implicated in poorer adherence to medication, advanced disease progression and increased mortality.

Objective

To determine the prevalence of depression and socio demographic correlates among adults living with HIV/AIDS attending AMPATH clinic in Kitale County Referral Hospital.

Method

Cross sectional descriptive study carried out among adults 18yrs and above at AMPATH clinic, Kitale County Referral Hospital. Systematic random sampling was used. Socio demographic questionnaire and BDI were used. Data was analyzed using SPSS version 23.

Findings

The study revealed that the prevalence of depression among the adults living with HIV and attending the AMPATH clinic in Kitale County Referral Hospital to be 24.74%. It also established that there were more females than males that were attending the AMPATH clinic at Kitale. The current study also established that overall; the respondents had low levels of education with over 50 percent having only attained their primary level education. The study also concluded that the relationship between socio-demographic factors and depression was weak despite establishing significant association between gender, marital status and education.

Recommendations

There should be a multi-disciplinary approach to HIV /AIDS treatment. Since socio-economic status is a driver in the spread of HIV, the HIV programs should involve sectors that may help in training and empowering the patients economically.

CHAPTER 1: INTRODUCTION

1.1 Background of the study

Depression in the PLWHA can in one way affect the management of HIV for it is a distressing and an impairing condition, which can affect a variety of self-care behaviors. It's hence paramount that depression assessment among HIV/AIDS infected people   to be carried out with a consideration of the stages of the disease because depression indicators can be dismissed as physical symptoms.

It has been suggested that individuals with HIV/AIDS (PLWHA) in the African continent, are highly vulnerable to probable depression and depression has been identified as a health concern globally. The estimated rates of depression range from 13 to 47%. (Murray et al., 2010). Identifying depression among PLWHA is very key as depression has been associated with lack of proper medication adherence, high rate of illness advancement and increased death rates.

Depression not only causes future disabilities but is also linked to poor quality of life, faster HIV disease progression and poor adherence. (Miller et al., 2006). Comorbidity with depression is common in HIV/AIDS infection and studies done found a frequency of major depression almost two times higher in HIV positive than HIV negative study participants. (Hert et al., 2011).

The commonest mental health disorder diagnosed in levels two and three primary care settings in individuals living with HIV/AIDS is depression. Despite advances in the treatment of HIV, there keeps on being an extensive and unexplained inconsistency in the advancement of this illness (Leserman, 2007).

Depression is the main source of disability and it is anticipated that by 2020 it will be the second leading cause of the worldwide burden of disease in disability balanced life years (WHO, 2007). It accounts for more than one in ten years of life lived with disability as well as significant premature mortality due to suicide and physical illness. (WHO, 2011).

There is impressive variety in the rates of depression in various nations however all things considered, between six and ten percent of ladies in developing nations are experiencing the condition and higher rates of depression have been identified in women from developing nations getting healthcare services from primary healthcare (Shittu et al., 2013).

Depression can be disruptive to a person's family, social and occupational functioning and this has been found to generate a range of psychological emotions that include anger, anxiety, fear of death and more emotions could sprout from feelings and judgment on who a person should tell about their illness and this may increase the risk of suicide or suicidal behaviors that call for concern. (Kinkenberg, 2004).

Some of the studies conducted in Sub Saharan Africa showed some of the risks of depression disorder associated with HIV/AIDS to be female gender, joblessness, impeded capacity, social help which was poor, life occasions which are poor and the CD4 counts (Adewayo et al., 2008).

Therefore, it is very important that holistic patients care includes all dimensions of health comprising both the mental and health dimension for depression has the capability of influencing a person's physical and mental wellbeing.

1.2 Statement of the research problem

Depression is the greatest source of disability in the world (UNAIDS 2007). Another major cause of disability and death is HIV/AIDS affecting approximately 33 million people globally. Depression and HIV/AIDS are important and worth of attention in their own right but are also worth considering together. The potential effects of the two conditions happening together are many and can be frustrating if not correctly recognized and treated (Olley et. al., 2004).

Although a lot is being done to address health and related issues of HIV/AIDS, the mental health of PLWHA has not received adequate attention. There is enough confirmation to show that psychological prosperity is a vital factor in the recovery process of numerous diseases and in adherence to treatment. It is against this foundation

that it is imperative to concentrate on HIV/AIDS related mental issue with the goal that intervention programs are created and hence the basis for this research.

1.3 Justification of the study

Due to the high existence rates of HIV/AIDS in our set up and the challenges of coping with the disease, it is expected that depression may be under diagnosed and may be impacting on quality of holistic care of patients with HIV/AIDS.

It is in this regard that the study focused on identifying patients with depression as comorbidity in HIV/AIDS. The study brought out the importance of mental health care in managing HIV/AIDS patients. There is need for early identification of patients with mental disorders in HIV/AIDS for appropriate intervention. The study will help clinicians identify those at risk for a more focused comprehensive approach in their management.

1.4 Research questions

   i.   What are the socio demographic characteristics of the study population?

  ii.   What is the prevalence of depression among persons living with HIV/AIDS?

 iii.   What is the association between depression, socio demographic characteristics and HIV/AIDS?

1.5 Objectives of the study

1.5.1 Broad objective

The research aimed at establishing the prevalence of depression and socio demographic correlates among adults living with HIV/AIDS attending AMPATH clinic at Kitale County Referral Hospital.

1.5.2 Specific objectives

   i.   To determine the socio demographic data of adults living with HIV/AIDS at AMPATH clinic in Kitale County Referral Hospital.

  ii.   To determine the prevalence of depression among adults living with HIV/AIDS at AMPATH clinic in Kitale County Referral Hospital.

iii.   To determine whether there was a significant correlation between depression and the socio demographic factors in adults living with HIV/AIDS at AMPATH clinic in Kitale County Referral Hospital.

1.6 Hypothesis

1.6.1 Null hypothesis

The prevalence of depression among persons living with HIV/AIDS attending AMPATH clinic is not significantly higher than that of the general population.

1.6.2 Alternative hypothesis

The prevalence of depression among persons living with HIV/AIDS attending AMPATH clinic is significantly higher than that of the general population.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

According to UNAIDS global report, there were 36.7 million (34.0 million-39.8 million) individuals living with HIV in 2015. As of December 2015, 17 million individuals living with HIV were getting to antiretroviral treatment, up from 15.8 million in June 2015 and 7.5 million out of 2010. Forty six percent of all grown-ups living with HIV were getting to treatment in 2015, up from twenty three percent out of 2010. Forty nine percent of all children living with HIV were getting to treatment in 2015, up from twenty one percent of every 2010. Seventy seven percent of pregnant women living with HIV had access to antiretroviral solutions to avert transmission of HIV to their children in 2015.

Children below 12 years account for ten percent of all cases of HIV/AIDS. The region most affected by HIV remains to be Sub Saharan Africa. According to UNAIDS about sixty eight percent of all people living with HIV are residents of the region, a region with only twelve percent of the global population. Prevalence of HIV in Kenya remains high. Among adults it's a disease mostly of those in the reproductive age bracket (15-45 years) with a male ratio of about 1:1:2. However, in the age bracket of 19-30 years females outnumber males.

A huge barrier to the provision of adequate treatment and quality of life to HIV/AIDS persons is depression. It is the most common psychosocial comorbidity of HIV infection that affects treatment in patients on ARVs, with a prevalence rate of 37% in persons living with HIV/AIDS (PLWHA) in the world (Bing et al., 2001).

2.1.1 International studies on the effect of depression

Major depressive disorder (MDD) has been recognized as a major disabling problem globally which leads to substantial impairment. MDD is more prevalent in women than men with a lifetime prevalence rate of 6.6% (Kupfer, Frank & Phillips, 2012).

Depression has been described as a common disorder that affects 15% of the population at some time in their lives (Bernstein, 2009). It is characterized by pervasive and persistent lowering of the mood, sleep disturbance, lowering of the appetite and weight loss.

Data reports a HIV diagnosis to be in connection with depression (Hand et al., 2009). Studies also show that depression is associated with HIV progression (Ickovics et al., 2001) either particularly or through conflicting use or poor adherence to antiretroviral treatment (Carrico et. al., 2011; Gonzalez et al., 2011).

Data show that significant depression is a typical psychiatric complication of HIV/AIDS. Prevalence of depression in HIV/AIDS ranges from zero to forty-seven-point eight percent in investigations of generally white homosexuals and injecting drug users. Methodological contrasts considering subject determination and result measures may represent a portion of this variance as may differential reporting rates in various nations (Olley B, et al., 2004).

Neuropsychiatric aspect of HIV is highly related with the overall quality of life and depression is the most common. Studies have reported robust relationship between depression and quality of life. In the study between the association of stigma, depression and quality of life among people with HIV/AIDS in the part of Southern India which was carried out in the seven districts of Tamil Nadu severe depression was at 12% and the ones having poor quality of life was about 34 % (Charles et al., 2012).

Prevalence of depression in Ontario Canada was estimated to be 28% among individual living with HIV/AIDS. Of the 957 participants who were identified with depression at baseline and who had at least two years of follow up, 42% had a recurrent episode. The cumulative incidence among 1,745 previously depression free participants (at or prior to baseline) was 14% (Choi et al., 2013).

Depression is statistically significant in rural women, widowed women and lower socio-economic status women according to a study done in South India. In the study that constituted 137 participants using the BDI, 51.1% of the participants were depressed. (Unnikrishnan, et al., 2012). Yet a study was done on prevalence of depression among men living with HIV infection among 584 participants in Vietnam. The rate of depression with 1-month period was 18.7%, which was substantially higher than that reported in the Vietnamese male population (Esposito, et al., 2009).

2.1.2 Regional studies on prevalence of depression

Major depressive disorder is common and has become a common source of distress and psychosocial disabilities. It is causing considerable suffering, disability and social exclusion in Africa and other developing countries. (Simoni et al., 2010).

Up to 70% of patients with HIV suffer from acute psychiatric complications related to HIV infection at some point in the course of their illness (Musisi et al., 2009). These disorders tend to manifest differently at different stages of the HIV disease. Some disorders appear both in the early and late stages of HIV/AIDS disease. High rates of Psychiatric Morbidity have been shown in HIV infected persons according to several studies.

A study that was undertaken in Uganda concerning the effects and the dangers of the various or major disorder in HIV/AIDS among 618 respondents going to two HIV centers demonstrated a predominance of real depressive issue at 8.1%. Components related with real depressive issue at univariate were family history of psychological sickness, negative adapting style, liquor reliance issue, female gender, food insecurity and stress; not related with real depressive disorder were social support, neurocognitive impairment, CD4 counts and BMI. Factors freely connected with significant depressive issue were; life time attempted suicide, psychosocial weakness, unfriendly life occasions, post-traumatic stress disorder and generalized anxiety disorder.

Commonness and hazard elements of real depressive issue in HIV/AIDS among 618 respondents going to two HIV centers demonstrated a predominance of real depressive issue at 8.1%. Components related with real depressive issue at univariate were female sexual orientation, family history of psychological sickness, negative adapting style, liquor reliance issue, sustenance instability and stress; not related with real depressive issue were; neurocognitive impedance, social support, BMI and CD4. Factors freely connected with significant depressive issue were psychosocial weakness, unfriendly life occasions, post-horrible pressure issue, summed up nervousness and life time endeavored suicide (Kinyanda et al., 2011).

In the west, studies have shown a multifactorial etiology of Major Depressive Disorder in HIV/AIDS including biological, social and psychological factors (Antelmal et al., 2009). It is not fully known the amount of these factors work in the African socio-cultural environment. However, the few examinations that have been done in Sub Saharan Africa point to the accompanying risk factors for Major Depressive Disorder in HIV/AIDS; female gender, older age, unemployment, negative life events, childhood trauma, impaired function, poor social support, low quality of life and low CD4 counts (Adewuya et al., 2008)

In reference done among those with HIV/AIDS in the African continent it showed that it had higher number of depressions which ranged between 13% to about 47% (Kaharuza et al., 2006). The reasons for such rates may be both structural and biological factors (Martinez et al., 2014). Distinguishing depression among PLWHA in HIV endemic settings is especially vital, as depression has been associated with poor adherence to medication, advanced disease progression and expanded death rates (Byakika et al., 2009). Depression is associated with the female gender, the aged, low income individuals, low education levels and lower CD4 count. This has been documented in a study done in Uganda on CD4 count and among persons with HIV/AIDS where rates of depression were at 47%. (Kaharuza, et al., 2006).

It is suggested that in the management of HIV/AIDS diagnosis and treatment of mental health disorders should be included. This is according to a study done in rural Tanzania on the prevalence of depression and anxiety disorders in 220 HIV positive patients which showed a prevalence rate of depression or mixed anxiety and depression at 15.5%. (Marwick et al., 2010).

Depression is closely associated with being a woman and having thoughts of committing suicide or rather an attempt but there is no any relationship between marital status ,the disclosure of status and the duration of HIV diagnosis this being with reference to a study that was carried out in Nigeria on the prevalence and predicators of depression among people with HIV/AIDS attending the outpatient clinic with 131 projects, 30(23.1%) met the criteria for major depressive disorder (Obadeji al., 2014)

In order to look at the psychosocial functioning of individuals living with HIV/AIDS, a study was done among HIV positive persons receiving care and treatment in Kenya, Namibia and Tanzania in eighteen HIV care and treatment clinics (six per country), among 3,538 participants where 28% reported mild to severe depression with 12% reporting severe depression. Participants from Kenya and Namibia reported greater depression than those from Tanzania. Approximately 28% of PLWHIV reported clinically significant symptoms (Seth et al., 2012).

In developing countries, up to 20 percent of those attending primary health car have mental health disorders of anxiety and depression but the symptoms of these conditions are often not recognized because most patients do not complain of depression but of physical symptoms. (Pence et al., 2006). The most evident symptoms in the people with HIV/AIDS are depression. This is very paramount because if unmanaged depression leads to worsened HIV outcomes (Carrico et al., 2010). In relation to this decrease of depressed or low moods may improve HIV related outcomes (Tsai et al., 2010). The policies and the programs for people living with HIV/AIDS in the Sub Saharan Africa mostly focuses on the access of antiretroviral therapy, but as far much as the effect of depression in People Living with HIV/AIDS may also be high as that in Sub Saharan African also in the US the little research has laid emphasis on the treatment and prevention of depression (Kaharuza et al., 2008).

2.1.3 Local studies on prevalence of depression

Although most of the comorbid conditions require the coordinated and holistic treatment of both physical and psychological health symptoms, there is a missed diagnosis in the primary care setting among people with HIV/AIDS (GOK, 2014).

In Kenya few studies have been done addressing depression and HIV/AIDS. A study on validity/reliability of PHQ-9 and PHQ-2 depression scales among adults living with HIV/AIDS in Western Kenya demonstrated rates for PHQ-9 and DSM IV major depressive disorder, other depressive disorders and any depressive disorder at 13%, 21% and 34% respectively. Depression was not associated with CD4 cell count but it was with female gender (Monahan et al., 2009).

Sometimes the prevalence of depression compared to other conditions can be higher and this is so in regards to a study on the effects of anxiety and depression among HIV/AIDS patients going to the Comprehensive Care Centre in Kenyatta National Hospital where depression was more prevalent than anxiety with an overall depression of 47.25%. The prevalence of mild, moderate and severe depression measured by Beck's Depression Inventory was 9.75%, 25.25% and 12.25% respectively (Ng'ang'a, 2011, unpublished).

Psychiatric morbidity among the HIV population is common and this was demonstrated by a study done on HIV affected children and adolescents whose age ranged from six to eighteen years attending a comprehensive care clinic for HIV/AIDS where 48.8% of the participants had at least one diagnosis of a psychiatric disorder or suicidality (Kamau, 2010).

2.2 Conceptual framework
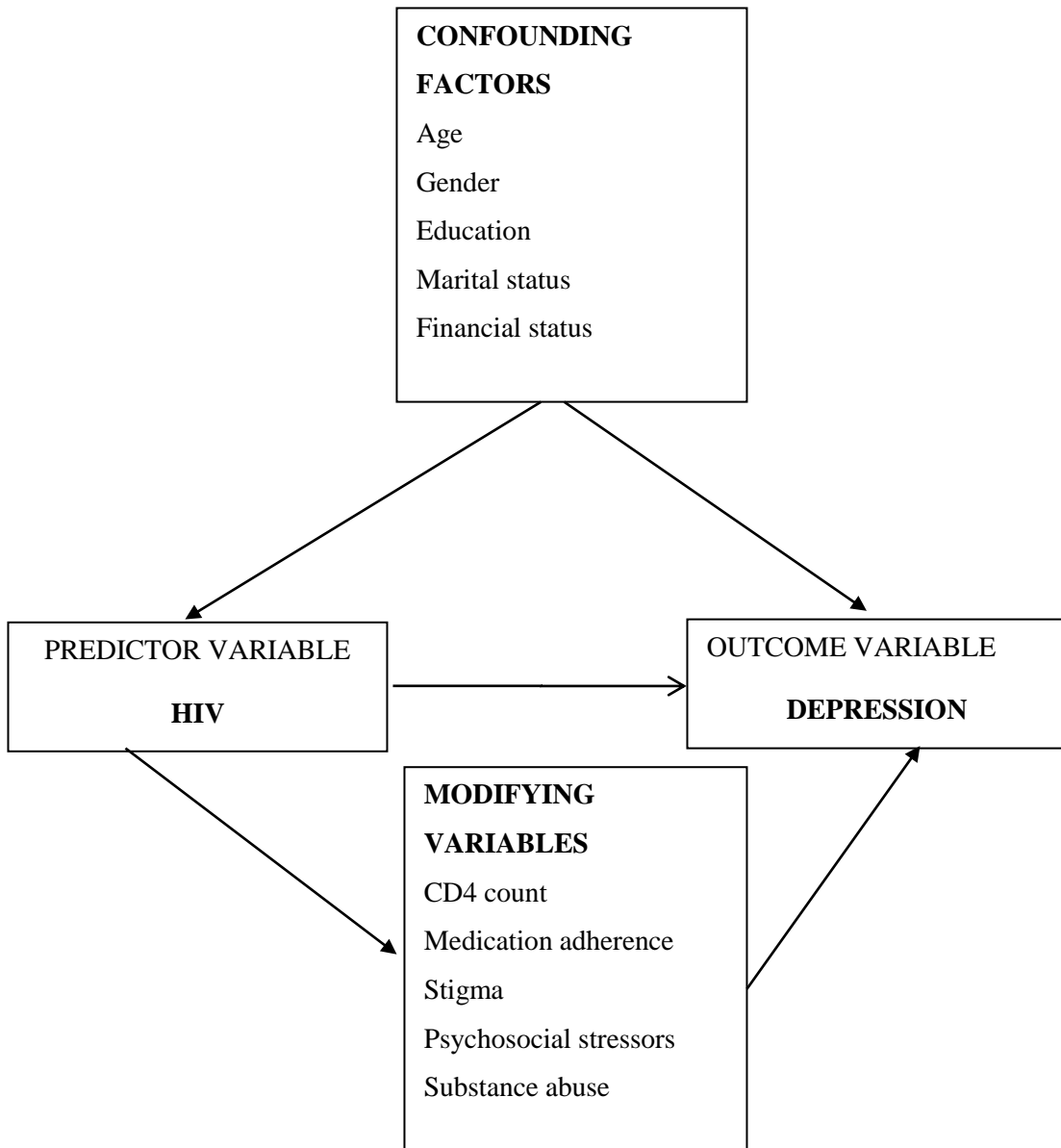
Figure 2.1: Conceptual framework

<u>**KEY**</u>

Modifying variables in the conceptual framework project the conditions under which the predictor variable is likely to generate the outcome variable. For example, being HIV+ while having psychosocial stressors or stigma can lead to depression.

Confounding factors affect the relationship between the predictor and outcome variable directly such that their presence may either prevent or cause the outcome. For example, a person's age or gender can either predispose or prevent one from depression.

Predictor variable it is sometimes referred to as an independent variable. In the conceptual framework the predictor variable is HIV.

Outcome variable this one is dependent variable that is scrutinized and subjected to measuring through by changing the independent variable. It determines the effect of the cause variables when adjusted for different values. In the conceptual framework the outcome variable is depression.

CHAPTER 3: METHODOLOGY

3.1 Study design

The study was a cross sectional one carried out so as to determine the prevalence of depression and socio demographic correlates among adults living with HIV/AIDS attending AMPATH clinic in Kitale County Referral Hospital.

3.2 Study area description

The study took place in AMPATH clinic at Kitale County Referral Hospital which is a level 4 hospital specializing in inpatient and outpatient medical services. Academic Model Providing Access to Healthcare (AMPATH) is a scholastic medical partnership between North America academic health centers focuses driven by the Indiana University School of Medicine and the Moi University School of Medicine, focused in Eldoret, Kenya. It is the first food and drug treatment model to be set up in Africa. The program tries to focus on reaching HIV care services through its three-way mission: care, research and training; it right now serves 3.5 million individuals, with more than 60 urban and country facilities in Western Kenya. AMPATH in Kitale County Referral Hospital is one of the clinics; it is located in Trans Nzoia West County in Rift Valley province. It has satellite clinics such as; Saboti, Tulwet, Kitale prison. The clinic has enrolled approximately 27,000 patients since its inception in December 2005. The patients that are currently in care are approximately 8,000. The clinic receives approximately 400 patients in a month. Clients are reviewed at an interval of between 3 to 6 months concerned on the viral load. The lower the viral load the higher the visits and the higher the viral load the lesser the visits to the clinic.

3.3 Study population

The study comprised adults who had HIV/AIDS going to the AMPATH clinic in Kitale County Referral Hospital whose age was 18 years and above who had agreed to participate in the study.

3.4 Inclusion criteria

The study consisted of clients attending AMPATH clinic who were aged 18 years and above and were willing to provide written consent.

3.5 Exclusion criteria

The study excluded all clients attending AMPATH clinic that were below 18 years and those that were not willing to provide written consent.

3.6 Sample size determination

Reference: Cochran WG. Sampling Techniques. 2nd Ed. New York: John Wiley and Sons, Inc., 1963.

$$n = \frac{Z^2\, p\, (1-p)}{d^2}$$

n= Sample size

d= the desired level of precision=0.05

p= estimated prevalence of depression=13% (Monahan et al., 2009) =0.13

Z= critical value of a standard normal distribution for a 95% confidence level=1.96

$$n = \frac{1.96^2\, 0.13\, (1-0.13)}{0.05^2}$$

n=174

The calculated sample size was however increased by 10%, because the expected attrition rate was 10%. The response rate was predicted to decrease because of participants who choose to pull out of research at the beginning or mid-way through the questionnaire filing. Moreover, some questionnaires were not fully filled; hence the anticipated none response rate. With this regard, the adjusted sample (N2) was calculated to be;

N2=174(110/100) = 194.

3.7 Sampling method

Systematic random sampling method was used. Every 5th patient in order of arrival who met the inclusion criteria was recruited for the study; this was carried out until the targeted sample size was achieved. If any of the selected participants declined to sign the informed consent form, then the next participant was selected for the study.

3.8 Data collection procedure

Data collection was conducted during regular clinic hours during a one-month period. About 50-100 patients go to the center daily; every one of them was given a number on arrival. The clinic operation hours are between 8am to 5pm Monday to Friday. The researcher was available on all days of the week. On each day of collecting the data the sampling scheme was used to select the first participant from the sampling frame. In case consent was denied, the next available participant was recruited. Participants who meet the criteria for the study were made to understand the purpose of the study in details as well as informed that the participation is on voluntary basis and decline to participate would not cause any prejudice to them. The researcher also explained in details risks and benefits of participation as well as assured participants of confidentiality. They were also given opportunity to ask questions where they did not understand. Those who wished to participate were given an informed consent form and those who declined to sign the form were excluded from the study. They were given time to go through the informed consent form and on agreement to participate they signed the form. Questionnaires were issued to the participants. Each assessment procedure took approximately 30 minutes per respondent; 15 minutes for consent explanation and signed consent, with 15 minutes to complete the questionnaires. Completed questionnaires were collected by the researcher. The researcher then thanked each and every participant for agreeing to take part in the study. All completed questionnaires were kept in a secure bag and transported to researcher's home where they were kept under key and lock awaiting data analysis.

3.9 Data collection instrument

3.9.1 Socio demographic questionnaire

Enrolled participants were given a clinician-administered social demographic questionnaire designed by the researcher to gather data in relation to the age, religion, sex occupation, and education status.

3.9.2 Beck's depression inventory

The beck's depression inventory was clinician-administered to gather data concerned with the effect of depression. The BDI is a depression scale developed by Aaron T Beck (1996). It is a 21-question multiple choice self-report inventory with each question on a scale of 0-3. The inventory is used to measure the severity of depression. Higher total scores indicate more excessive depression.

The BDI is basically known and has been tried for content, simultaneous and concurrent and construct validity. This test has been utilized for 35years to recognize and survey depression and has been accounted for to be exceptionally solid despite the population. It has a high coefficient alpha, (0.80). Its construct validity has been set up and it can separate depressed from non-depressed respondents. High validity evaluations have been given between the BDI and other depression instruments as the Minnesota Multiphasic Personality Inventory and the Hamilton Depression Scale; 0.77 correlation rating was computed when contrasted and stock and psychiatric appraisals (Beck et al., 1996). BDI demonstrated high construct validity with the medicinal side effects it quantified. Beck's examination announced a coefficient alpha of .92 for outpatients and .93 for college student tests. The BDI-II decidedly related with the Hamilton Depression Rating Scale, r=0.71, had a multi week test-retest reliability of r=0.93 and an internal consistency α=.91.

A positive depression screen will be shown as BDI score greater than 10; scores 0-10 are defined as normal; 10-16 indicate a mild mood disturbance; 17-20 indicates borderline clinical depression; 21-30 define moderate depression; 31-40; define severe depression; and over 40 or higher extreme depression. A persistent score of 17 or above indicates need for treatment.

The Kiswahili version of the BDI was also provided for those who had difficulties understanding English.

3.10 Data management, analysis and presentation

The researcher administered the questionnaires to the individual respondents. At the end of each session, the researcher inspected the filled questionnaires for completeness and validity of responses prior to storing them safely in preparation for analysis. Data was then coded prior to data entry.

Data was analyzed using the Statistical Package for Social Sciences (SPSS) version 23. All descriptive and differential analysis was done. This involved grouping the questionnaires into: socio demographic profile, Becks depression inventory scores. This was useful in explaining variables, distributions, observing trends and making data meaningful. Frequency distributions was performed on all variables and then subjected to other analysis like chi-square test statistics. The chi- square test was used to observe the statistical significance of association between pairs of variables. Results with a P value of $p < 0.05$ and a confidence interval of 95% were considered as statistically significant. The results were presented in graphs, percentages, bar/ pie charts and in narratives. Confidentiality was ensured for data collected.

3.11 Ethical consideration

The study involved human subjects and consisted of a vulnerable group hence ethical approval was obtained from Kenyatta National Hospital/ University of Nairobi Ethics and Research committee. Permission was also sort from the in charge of the AMPATH clinic to conduct research.

The respondents were briefed about the study and the necessary instructions, study objectives, risks and participant rights. Each participant was presented with informed consent forms which contained the title of the study, the institution, identity of the researcher and supervisors as well as the purpose and procedure of the study.

Participants were assured that participation was entirely on voluntary basis and also made aware that they can withdraw from the study if they felt uncomfortable to continue and no penalties or victimization would result.

The researcher also assured the participants of confidentiality and privacy by not using names or other direct identifiers and only used serialized coding. Confidentiality of information collected was guaranteed and the researcher undertook to abide by local and international laws and protocol governing research on privacy and confidentiality throughout the research period.

In case of psychological risks like anxiety or emotional distress triggered by answering questions, psychological support was offered and those adversely affected were referred to the Kitale County Referral Hospital for psychosocial support.

3.12 Limitations of the study

This study is limited to a rural clinical setting, and thus there was no question of generalizability of the results to an urban population.

3.13 Flow chart
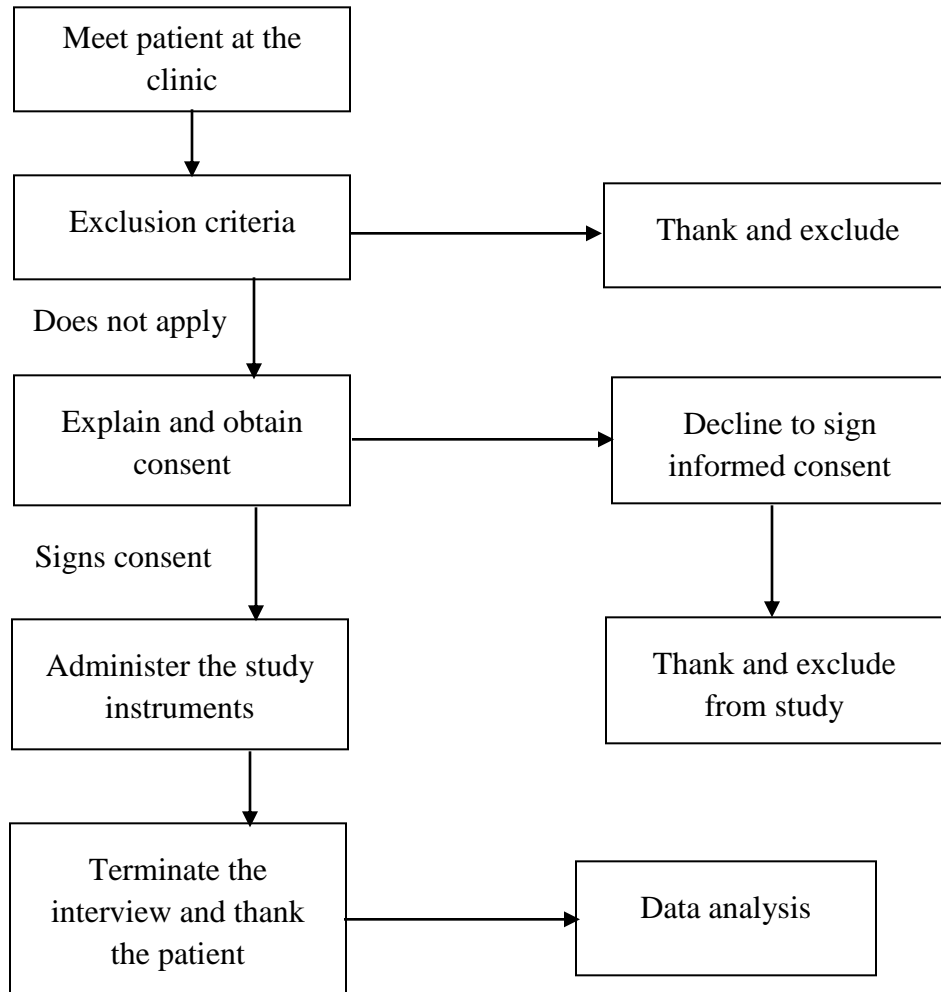
Figure 3.1: Flow chart

CHAPTER 4: RESULTS

4.0 Introduction

This chapter entails the analysis of data. The results are presented according to the study objectives which were; to determine the socio-demographic data of adults living with HIV/AIDS at AMPATH Clinic in Kitale County Referral Hospital, to determine the prevalence of depression among adults living with HIV/AIDS at the clinic and finally to determine whether there is a significant correlation between depression and the socio-demographic factors in adults living with HIV/AIDS and attending the AMPATH Clinic in Kitale County Referral Hospital.

4.1 Response rate

The target population for the study was 194 respondents. The researcher managed to engage all the respondents needed for the study and therefore, the response rate was 100 percent (100%).

4.2 Socio demographic factors

The number of female respondents was 144 which were 74.2% of the total sample population. The remaining 25.8% of the population were male. The mean age of the respondents was 42.12 years old. The median was 42 years while the mode was 40 yrs old. As shown in the table 4.1; 36.1% of the respondents were between the ages of 40 to 49yrs which was the most represented age group. Thirty-point four percent (30.4%) of the respondents were between the ages of 30 to 39 years. Fifty-one point five (51.5%) had only reached primary school. A considerable number of respondents had attained secondary school education (30.9%) while 20 respondents had no formal education. A majority of respondents were earning below Kshs. 5000 or had no source of income; 34% and 29.9% respectively. Actually 33% of the respondents were unemployed while 51% were self-employed. Only 16% were employed. The results are shown in the table 4.1 below.

Table 4.1: Respondents Socio-Demographic Profiles

	Frequency/ Percent (N/%)		Frequency/ Percent (N/%)
Gender		**Occupation**	
Male	50(25.8%)	Unemployed	64(33.0%)
Female	144(74.2%)	Employed	31(16.0%)
		Self Employed	99(51.0%)
Age			
20-29yrs	19(9.8%)	**Income**	
30-39yrs	59(30.4%)	No income	58(29.9%)
40-49 yrs	70(36.1%)	Below 5,000	66(34.0%)
50+ yrs	46(23.7%)	5,001-10,000	49(25.3%)
		10,001-15,000	12(6.2%)
Education Background		15,001 & above	9(4.6%)
No Formal Education	29(14.9%)		
Primary	81(41.8%)	**Religion**	
Secondary	58(29.9%)	Catholic	28(14.4%)
College/University level	26 (13.4%)	Protestant	164(84.5%)
		Muslim	1(0.5%)
Marital Status		Others	1(0.5%)
Single	88(45.4%)		
Married	106(54.6%)		

4.3 Respondents HIV status information

The study sought to find out some information about the respondents' HIV status; as indicated in Table 4.2; 27.3% of the respondents said they had known their status for between 1 and 3 years while 15.5% of the respondents indicated that they had known for 3 to 5 years. As for the latest viral load; 65.5% had undetectable viral load meaning their viral load was between 40 and 75 copies/ML. Twenty-five-point eight percent (25.8%) had considerable low viral load of between 76 and 5000 copies/ml. The study also sought to find out how long the respondents had taken ARVs and 36.1% of the respondents indicated that they had taken them for 1 to 3 yrs. Eighteen percent (18%) of the respondents had taken them for over 9 years. None of them had ever been diagnosed with a mental disorder. Ninety two percent (92%) of the respondents had disclosed their status to their families. A few of the participants (4.6%) had missed taking their medication at one time due to being away from home. Notably, most of the respondents did not belong to support groups.

Table 4.2: Respondents HIV information

	Frequency/ Percent (**N/%**)		Frequency/ Percent (**N/%**)
Length of Time of Knowing HIV Status		**History of opportunistic Infections**	
<1 yr	19(9.8%)	Yes	43(22.2%)
Above 1yr-3yrs	53(27.3%)	No	151(77.8%)
Above 3yrs-5yrs	30(15.5%)		
Above 5yrs-7yrs	21(10.8%)	**History of Changing the ARVs**	
Above 7yrs-9yrs	16(8.2%)	Yes	42(21.6%)
Above 9yr & Above	55(28.4%)	No	152(78.4%)
Length of Taking ARVs		**History of Mental Illness Diagnosis**	
Never Used	11(5.7%)	Yes	0(0.0%)
Above 1yr-3yrs	70(36.1%)	No	194(100.0%)
Above 3yrs-5yrs	32 (16.5%)		
Above 5yrs-7yrs	27(13.9%)	**Disclosing Status**	
Above 7yrs-9yrs	19(9.8%)	Yes	178(91.8%)
Above 9yr & Above	35(18.0%)	No	16(8.2%)
Member of a Support Group		**Have you ever Missed Taking your ARVs**	
Yes	8(4.1%)	Yes	9(4.6%)
No	186(95.9%)	No	185(95.4%)
Latest Viral Load			
Undetectable viral load (40-75 copies/Ml)	127(65.5%)		
Considerable low viral load (76- 5000 copies/Ml)	50(25.8%)		
Very High Viral Load (5001+ copies/ Ml)	17(8.8%)		

4.4 Respondents overall BDI scores

To determine the levels and severity of depressive symptoms among the respondents, Becks Depression Inventory (BDI) was used. As shown in table 4.3 below; 58.8% had 0-10 scores meaning that their experiences were considered normal. Sixteen-point five percent (16.5%) of them scored between 11 and 16 in the BDI and that meant that they only suffered from mild mood disturbances. Almost 21% of the respondents were suffering from borderline clinical depression while slightly above 4% had moderate depression. No respondents had severe depression.

Table 4.3: Respondents becks depression inventory scores results

	Frequency	Valid Percent
0-10 Scores- These Ups and Downs Are Considered Normal	114	58.8
11-16 Scores- Mild Mood Disturbance	32	16.5
17-20 Scores-Borderline Clinical Depression	40	20.6
21-30 Scores- Moderate Depression	8	4.1
31-40 Scores- Severe Depression	0	0.0
Total	194	100.0

4.4.1 Overall depression prevalence

One of the study objectives was to determine the prevalence of depression among the adults living with HIV and attending the AMPATH clinic in Kitale county Referral hospital, and as shown in the figure 4.1 below, 24.7 % of the respondents were found to be suffering from borderline to moderate depression.
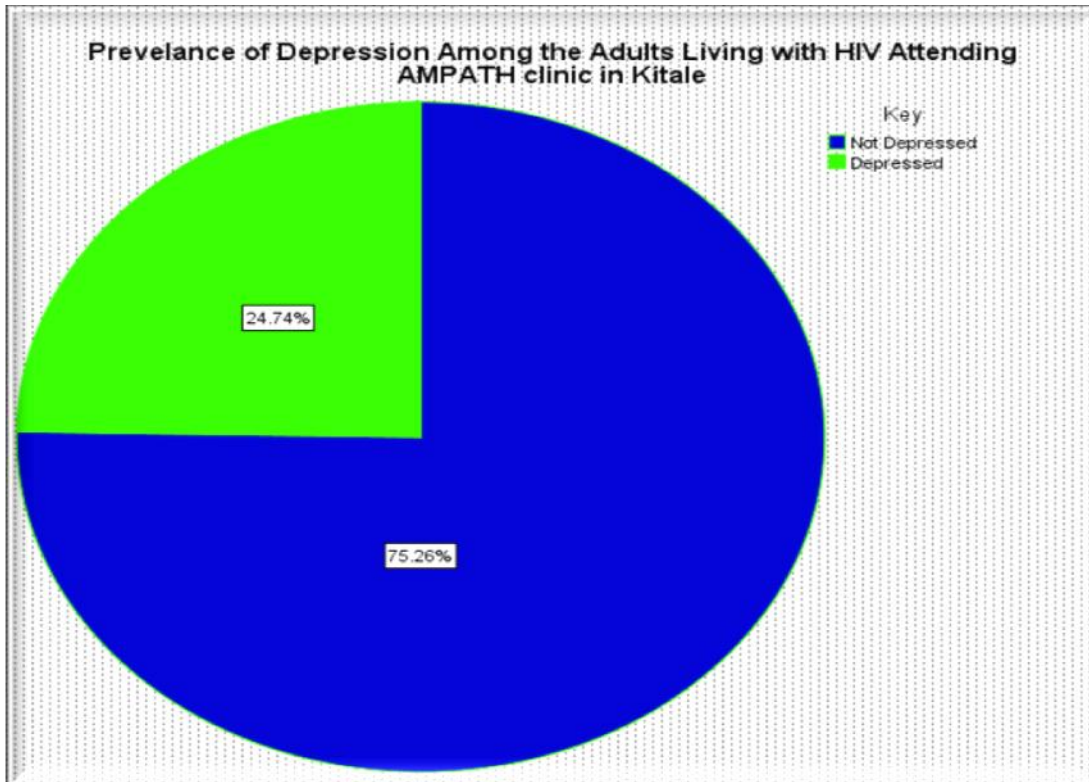
Figure 4.1: Prevalence of Depression

4.4.2 Association & relationship between respondents' socio-demographic factors and depression

The socio-demographic variables were categorical while the depression variable was also a dichotomous categorical variable, no correlation coefficient could appropriately indicate the direction of the association between the variable. Therefore, Cramer phi coefficient (Cramer's V) which shows the strength of relationship between such variables with regards to the size of effect that the independent variable could have on the dependent variable was used in this case.

As shown in the table 4.4, gender was significantly associated with depression at a P Value of 0.041. However, the correlation statistics (Cramer's Phi coefficient) indicated that the relationship (effect of gender on depression was very weak- Cramer's V= 0.147).

Education level of the respondents was also related with depression at a P value of 0.012. The study associated higher education levels with no depression among the respondents. The correlation statistics (Cramer's Phi coefficient) indicated that the relationship (effect

of education on depression was moderate- Cramer's V= 0. 237. Marital status was also related with depression at a P Value of 0.016. However, the correlation statistics (Cramer's Phi coefficient) indicated that the relationship (effect of marital on depression was very weak- Cramer's V= 0.173.

Table 4.4: Association between respondents' depression and socio-demographic factors

		Pearson Chi-square (P Value)/ Cramer Phi Coefficient (Cramer's V)		
		No Depression	Depression	
Gender	Male	43(22.2%)	7(3.6%)	*0.041*
	Female	103(53.1%)	44(22.7%)	*Cramer's V-0.147*
Age	20-29yrs	12(6.2%)	7(3.6%)	
	30-39yrs	46(23.7%)	13(6.7%)	*0.658*
	40-49yrs	55(28.4%)	15(7.7%)	*Cramer's V-0.130*
	50-59yrs	33(17.0%)	13(6.7%)	
Marital Status	Single	59(30.4%)	29(14.9%)	*0.016*
	Married	87(44.8%)	19(9.8%)	*Cramer's V-0.173*
Education	None	16(8.2%)	13(6.7%)	
	Primary	60(30.9%)	21(10.8%)	*0.012*
	Secondary	46(23.7%)	12(6.2%)	*Cramer's V-0.237*
	College/ University	24(12.4%)	2(1.0%)	
Occupation	Employed	20(10.3%)	11(5.7%)	*0.080*
	Self Employed	81(41.8%)	18(9.3%)	*Cramer's V-0.161*
	Unemployed	45(23.2%)	19(9.8%)	
Income	No Income	43(22.2%)	15(7.7%)	
	Below 5000	49(25.3%)	17(8.8%)	
	5001- 10000	36(18.6%)	13(6.7%)	*0.831*
	10,001-15,000	10(5.2%)	2(1.0%)	*Cramer's V-0.087*
	15,001+	8(4.1%)	1(0.5%)	
Religion	Catholic	22(11.3%)	6(3.1%)	
	Protestant	123(63.4%)	41(21.1%)	*0.315*
	Muslim	0(0.0%)	1(0.5%)	*Cramer's V-0.135*
	Others	1(0.5%)	0(0.0%)	

4.4.3 Correlation between respondents' HIV status related factors and depression

A point-bi serial correlation was run to determine the relationship between prevalence of depression and how long the respondent had known their HIV status, how long they had been on ARVs and their latest viral count and as shown in the table above; there was no significant correlation between these variables and prevalence of depression. However, as shown there was a significant linear correlation between the length of time respondents had been on ARVs and how long they had been aware of their HIV status.

Table 4.5: Relationship between Respondents HIV Status and Depression

		For how long have you known your HIV+ status?	What is your latest viral count?	For how long have you been on ARVs?	Prevalence of Depression
For how long have you known your HIV+ status?	Pearson Correlation	1	-.016	.847**	.008
	Sig. (2-tailed)		.819	.000	.915
	N	194	194	194	194
What is your latest viral count?	Pearson Correlation	-.016	1	.008	-.071
	Sig. (2-tailed)	.819		.916	.325
	N	194	194	194	194
For how long have you been on ARVs?	Pearson Correlation	.847**	.008	1	-.027
	Sig. (2-tailed)	.000	.916		.704
	N	194	194	194	194
Prevalance2	Pearson Correlation	.008	-.071	-.027	1
	Sig. (2-tailed)	.915	.325	.704	
	N	194	194	194	194

**. Correlation is significant at the 0.01 level (2-tailed).

CHAPTER 5: DISCUSSIONS, SUMMARY & CONCLUSION

5.1 Socio-demographic data of adults living with HIV/AIDS at AMPATH Clinic in Kitale County Referral Hospital

The study established that there were more females than males that were attending the AMPATH clinic at Kitale. Similar results have been reported in HIV studies across Sub-Saharan countries. According to the UNAIDS (2008), more women are infected by the HIV virus and it is actually estimated that they represent almost 60 % of the HIV burden in this region. The current study also established that overall; the respondents had low levels of education with over 50 percent having only attained their primary level education. A considerable number of respondents had not been exposed to any formal education. Similar results were previously reported in a study that was conducted in Afghanistan to investigate the level of HIV/ AIDS awareness or knowledge. The study reported that most of the respondents had low levels of education which contributed immensely to their lack of knowledge about HIV/AIDS (Mooley, 2008). This is a major concern considering the fact that according to UNICEF, education still remains the most effective way to deal with and stop the spread of HIV/AIDS (World Food Programme, 2013).

Finally, the current study established that the respondents were mostly from lower socio-economic backgrounds with a majority earning below five thousand Kenyan shillings or generally having no income. Other studies have reported similar results. In a study that was undertaken in Nigeria to determine the relationship between socio-economic status and HIV infection, it was evidence that most of the individuals who were infected with HIV were mostly from low socio-economic status (Ogunmola, Oladosu, & Olamoyegun, 2014).

5.2 The Prevalence of depression among adults living with HIV/AIDS at the clinic

The study revealed that the prevalence of depression among the adults living with HIV and attending the AMPATH clinic in Kitale County Referral Hospital was 24.74%. This group of respondents was found to be suffering from borderline to moderate depression. Similar results have been established from other studies for example in a cross-sectional study that was done in Cameroon to determine the prevalence of depression among HIV/AIDS patients on Highly Active Antiretroviral Therapy in the Southwest Regional Hospitals of Cameroon, it was found that almost 28% of the patients were suffering from depression. The respondents who were diagnosed with depression were mostly non-adherent to medication and unemployed (Ngum, Nde Fon, Ngu, & Verla, 2017). The significant difference with the current study is that, it shows no association between depression and non-adherence to medication.

Another study that was conducted to determine prevalence and correlates of depression among HIV positive patients was in Bihar, India. This study also reported more or less similar results. The study established that 30 % of the respondents were diagnosed with moderate to severe depression (Hussain, et al., 2017). In a Kenyan study on the prevalence of anxiety and depression among HIV/AIDS patients attending the Comprehensive Care Centre in Kenyatta National Hospital, the overall prevalence rate of depression of 47.25%. The prevalence of mild, moderate and severe depression measured by the BDI was 9.75%, 25.25% and 12.25% respectively (Ng'ang'a, 2011 unpublished). Comparatively, the study found that 35% of the participants had mild to moderate depression which was slightly higher than this current study finding.

Higher and lower morbidity rates have been reported in other studies. With regards to higher morbidities, a similar study that was conducted in Guru Teg Bahadur Hospital and University College of Medical Sciences, Delhi, reported that over 55% of the participants were suffering from depression (Bhatia & Munjai, 2014). The study involved 160 patients and it adopted the CES-D (Center for Epidemiologic Studies – Depression) scale. As for studies that have reported lower morbidities; is a study that was carried out in rural Tanzania, where the prevalence rate of depression was just slightly lower than what is reported in the current study at 15.5% with 4.5% of them reported to be suffering from

other anxiety disorders (Marwick & Kaaya, 2010). Another study that was carried out in Ethiopia, found that the significance of depression in people living with HIV in Debre Town was 11.7 % (Kibret & Salilih, 2015).

The prevalence of depression at the Kitale Ampath Clinic was considerably low compared to the referenced studies, these results could be attributed to the fact that the study was hospital based and owing to fact that depression symptoms include avolition; the patients would probably not appear at the clinic. The BDI was also self-reporting and the results could be misleading because generally patients tend to minimize their symptoms or dishonest. Finally, the lack of mental illness diagnosis prior to the study only highlighted the fact that psychological care and psychiatric treatment has not been incorporated into HIV management at Kitale Ampath Clinic. The probability that the staff had no expertise to diagnose or recognize symptoms of depression in patients was very high.

5.3 Relationship between Depression, Gender, Education Level & Marital Status

The study found that gender was significantly associated with depression, it was reported that women were mostly diagnosed with depression unlike the male respondents. Although it should be noted that the study also found that there was a weak relationship between gender and depression. Education level was also significantly associated with depression whereby it was found that lower educated individuals were generally suffering from depression. The relationship between the two variables was substantial or moderate at Cramer's V of 0.237. Finally, marital status was also significantly associated with depression where generally single respondents were found to be suffering from depression; the strength of relationship was however found to be weak.

Other studies have shown similar results. In a study that was carried out in rural South Africa to determine the effects and correlates of depression of people with HIV infected and affected older people, it was reported that, being female, receiving government grant and living in the urban area were adversely associated with any depressive episode (Nyirenda, et. al., 2013). In a similar study that was undertaken in Nigeria,it was determined that most of the respondents that suffered from depression were between the

ages of 30 to 39years. This current study found similar results but within a broader age range of 30-49years however, there was no established statistical significance. More women were diagnosed with depression and they accounted for nearly 70% of the total popultion with 22.7% reportedly depressed. Most of the respondents were also divorced, separated or widowed; generally single as shown in the current study.

Still in Nigeria, another study was carried out in Ilorin Nigeria to come up with the various effect of depression and the socio demographic traits of patients suffering from HIV as it was observed by a family physician in University of Horin Teaching Hospital and it was discovered that there was a statistical important connection between depression and participants aged 47 years and above. There was a significant association between being single and having lower levels of education and depression (Amoko, et al., 2016).

CHAPTER 6: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

The prevalence rates reported were considerably lower than results established from other studies done within Africa. The study also reports that the most affected gender was females in this particular study. The most affected age groups were between the age of 30 and 49yrs. The study also reported that the respondents had low level of education. The study also established that most of the respondents were from low socio-economic backgrounds. Finally, no mental disorder had been previously diagnosed among the respondents.

6.2 Conclusion

In light of the fact that HIV sero- positivity and comorbid depressive disorders are associated by poor outcome especially with regards to disease progression, one of the study conclusions is that there was a low but still significant prevalence of depression among HIV patients at the AMPATH clinic at Kitale Referral Hospital. As the comparative analysis shows in the discussion section, the prevalence rates reported were considerably lower than results established from other studies done within Africa. Nevertheless, these results show positive development particularly related to the management and coping styles of the patients who attend these clinics.

With regards to socio-demographic factors of the respondents, similar to other studies published on the same, the study concluded that the most affected gender were females who have been reported as the most affected gender with regards to HIV infections. The most affected age groups were between the age of 30 and 49yrs which was also noted in other studies on the same. The study also concluded that generally, the respondents had low level of education which has been associated with higher prevalence of HIV and depression by other studies. As earlier noted, education still remains the most effective way to deal with and stop the spread of HIV/AIDS (World Food Programme, 2013). The same conclusion was made regarding the socio-economic level of the respondents. Other studies have also concluded that indeed low socio-economic status is driver in the spread of HIV.

The study also concluded that the relationship between socio-demographic factors and depression was weak despite establishing significant association between gender, marital status and education.

Finally, prior to respondents being diagnosed with depression and despite the fact that the prevalence rates were considerably low; none of the respondents had been diagnosed with a mental disorder. Clearly there is a gap in the comprehensive or holistic treatment of HIV particularly that focuses on mental health. This is important because HIV/AIDS with a comorbidity of a mental illness is associated with poor adherence and quicker disease progression (Bhatia & Munjai, 2014).

6.3 Recommendations

There should be a multi-disciplinary approach to HIV /AIDS treatment. Basically, mental health should be considered when treating these patients.

Since socio-economic status is a notable driver in the spread of HIV, the HIV program should involve sectors that may help in training and empowering the patients economically

As mentioned earlier, the number of people with depression was really low. Another study should be done in a different hospital within the county, using a larger sample size to determine whether these results will be replicated.

Most of the respondents were also not affiliated to any support groups and yet they seem to be coping very well and not depressed. It was also commendable how a small number of the respondents reported missing their daily ARV dozes and surprisingly those that missed their medication were actually not depressed. Studies have actually shown that lack of adherence to ARV medications is actually associated with depression (Amoko, et al., 2016). Therefore, this study recommends that a study is done to determine the type of social support these patients have that enables them to be of good mental health.

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ydNgW4Gao&v=1&r=http%3a%2f%2fwww.unaids.org%2fen%2fresources%2fd ocuments%2f2015%2f20150714_factsheet&p=DevEx,5083.1.

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APPENDICES

Appendix I: English Informed Consent Explanation Form

Title

Prevalence of Depression and Socio Demographic Correlates among Adults Living with HIV/AIDS Attending AMPATH clinic in Kitale County Referral Hospital.

Institution

College of Health Sciences, Faculty of Medicine, Department of Psychiatry University of Nairobi.

Investigator

Ruth Wambui Mwaura

Supervisors

1. Prof. Wangari Kuria
2. Prof. Anne Obondo

Investigator's Statement

I, Ruth Wambui Mwaura, a clinical psychology student at University of Nairobi, Department of Psychiatry wish to do a study entitled **Prevalence of Depression and Socio Demographic Correlates among Adults Living with HIV/AIDS Attending AMPATH clinic in Kitale County Referral Hospital.** This research study is part of the requirement for completion of my postgraduate degree course at University of Nairobi.

Background Information

Iam conducting a study that will measure the levels of depression. Participation in this study will take 30- 45 minutes to complete.

Purpose

This study will be exploring the occurrence of depression; an emotional and psychological state characterized by sadness among HIV/AIDS patients attending AMPATH clinic in Kitale County Referral Hospital.

Number of people who will take part in the study

The investigator will recruit a minimum of 194 clients attending AMPATH clinic in Kitale County Referral Hospital to participate in the study.

Study Procedure

I will explain the content of the consent form to you and if you agree to participate in the study, I will ask you to sign the consent form showing that you have agreed to take part in the study. I will ask you questions which will be in form of questionnaires: Socio demographic which will have general questions such as your age, religion etc. and the Beck's Depression Inventory that will be used to assess depression. I will explain the contents of each questionnaire before you answer. I will also be available to answer any questions you might have after the interview.

Visits

This is the only visit that you will take part in during this study with an exception on follow up sessions. Follow up schedules will be done after the research is completed and presented to the Department of Psychiatry for approval. All the participants who will take part in the study will be contacted via phone calls or during their subsequent visits to the clinic and given appropriate feedback on what the study results were.

Benefits

Participating in this study may not benefit you directly, but it will help us learn more about prevalence of depression in patients attending the AMPATH clinic in Kitale County Referral Hospital.

It is hoped that the results of this study will help in the following ways:

   i.   Those found with depression will be referred for further treatment

ii. Policies that will ensure integration of mental health interventions into HIV/AIDS care and management as well as routine screening of depression in patients attending the clinic are put in place in the future.

Voluntarism

Participation in this study is voluntary and you will not be victimized or coerced into taking part in the study if you do not want to. There is no right or wrong answer. Some of the topics may be difficult to discuss.

Confidentiality

All information collected will be kept confidential, and your name will not be used in the study or in any resulting publications. However, a breach of confidentiality may occur only when your life and/ or the lives of others are in danger.

Ethical considerations

This protocol is designed with the client's confidentiality in mind. Participants found in need of treatment or other interventions will be referred for treatment.

Risks

Some questions may be uncomfortable and may make you remember painful experiences.

Contact

For more information about your rights as a research participant you may contact the Chairperson, Kenyatta National Hospital/University of Nairobi Research and Ethics Committee, Prof A.N Guantai at Tel No 2726300 ext. 44355/44102. You may also contact the researcher directly: Ruth Wambui Mwaura Tel: 0721 162 101.

Consent Form

Participant's code: …………………………. Date: ……………………………………

Participant's statement: I, the undersigned, do hereby volunteer to participate in this study whose nature and purpose has been explained to me by **Ruth Wambui Mwaura.** I understand that this is my choice. If I change my mind, I understand that I will continue to receive medical care.

Participant's Signature (or mark of consent)* ……………………………………………

Date …………………………………………………………………………………..

Witness signature ……………………………………………………………………

Date …………………………………………………………………………………...

Researcher's signature …………………………………………………………………...

Date …………………………………………………………………………………...

*subject may sign or provide verbal consent in the presence of a witness who in turn then signs.

Appendix II: Kiswahili Informed Consent Explanation Form

UJUMBE WA MSHILIKI NA FOMU YA KUKUBALI KUSHIRIKI KWA UTAFITI

Kichwa

Kiwango cha maambukizi ya Unyogovu na idadi ya watu inayohusiana miongoni mwa watu wazima wanaoishi na virusi vya ukimwi wanaohudhuria kliniki ya AMPATH katika Hospitali ya Rufaa ya kata Kitale.

Taasisi

Chuo cha sayansi ya afya, Kitivo cha dawa, idara ya psychiatry chuo Kikuu cha Nairobi.

Mtafiti

Ruth Wambui Mwaura

Wasimamizi

1. Prof Wangari Kuria
2. Prof Anne Obondo

Matamshi ya mtafiti

Mimi, Ruth Wambui Mwaura, mwanafunzi wa Kliniki Saikolojia katika Chuo Kikuu cha Nairobi, Idara ya Psychiatry ningependa kufanya utafiti lenye jina Maambukizi ya Unyogovu na Idadi ya Watu inayohusiana miongoni mwa watu wanaoishi na VVU/UKIMWI wanaohudhuria Kliniki ya AMPATH katika Hospitali ya Rufaa ya Kata ya Kitale. Utafiti huu ni sehemu ya mahitaji ya kukamilika kwa shahada ya uzamili katika chuo kikuu cha Nairobi.

Maelezo ya asili

Nafanya utafiti ambao utapima kiwango cha unyogovu. Kushiriki katika utafiti huu utachukua dakika 30-45.

Kusudi

Utafiti huu utafuatilia tukio la unyogovu; hali ya kisaikolojia inayojulikana na huzuni kati ya wagonjwa wa VVU/UKIMWI wanaohudhuria Kliniki ya AMPATH katika Hospitali ya Rufa ya kata Kitale.

Idadi ya watu ambao watashiriki katika utafiti

Mtafiti atachukua Washiriki mia moja tisini na nne wanaohudhuria Kliniki ya AMPATH katika Hospitali ya Rufa ya Kata Kitale.

Taratibu ya utafiti

Nitakueleza yaliyomo katika fomu ya ridhaa kisha ukikubali kushiriki, nitakuitisha sahihi yako ili kuonyesha ya kwamba umekubali kushiriki katika utafiti huu. Nitakuuliza maswali ambayo yatakuwa katika fomu ya maswali; fomu ya kuangalia idadi ya watu na maswali ya jumla kama vile umri, dini nakadhalika na mfuko wa unyogovu wa Beck ambao utatumika kuthamini unyogovu. Nitakuelezea yaliyo katika fomu kabla ya kujibu. Pia nitapatikana ili kujibu maswali yoyote ambayo unaweza kuwa nayo baada ya mahojiano.

Ziara

Hii ndio ziara pekee utakayo hitajika wakati wa utafiti huu unapofanyika isipokuwa wakati wa kupeana majibu ya matokeo ya utafiti. Wakati wa kupeana majibu ya matokeo ya utafiti huu utafanyika baada ya utafiti kumalizika; baada ya kuwasilisha na kuidhinishwa na Idara ya Psychiatry. Washiriki wote ambao waliohusika kwenye utafiti watawasiliwa kupitia simu au wakati wa ziara zao za baadaye kwenye kliniki na kupewa maoni sahihi juu ya matokeo ya utafiti.

Faida

Kushiriki katika utafiti huu hauwezi kukufaidi moja kwa moja, lakini kutatusaidia kujifunza zaidi juu ya kuenea kwa unyogovu kwa wagonjwa wanaohudhuria Kliniki ya AMPATH katika Hospitali ya Rufa ya Kata Kitale.

Inatarajiwa kuwa matokeo ya utafiti huu utasaidia kwa njia zifuatazo;

i. Wale watakaopatikana na unyogovu watatumwa kwa matibabu zaidi.

ii. Sera ambayo itahakikisha ushirikiano wa hatua za afya ya akili katika huduma ya udhibiti wa VVU/UKIMWI na usimamizi wa kawaida wa wagonjwa wanaohudhuria Kliniki kuwekwa katika siku zijao.

Kushiriki kwa hiari yako

Kushiriki katika utafiti huu ni kwa hiari na huwezi kushtakiwa au kulazimishwa kushiriki katika utafiti ikiwa hutaki. Hakuna jibu sahihi au lisilosahihi. Baadhi ya mada katika maswali yanaweza kuwa magumu kuzungumzia.

Jinsi ya usiri katika utafiti huu

Taarifa zote zilizokusanywa zitahifadhiwa kisiri na jina lako halitatumika katika utafiti au katika machapisho yoyote. Hata hivyo, uvunjaji wa siri unaweza kutokea tu wakati maisha yako na/ au maisha ya wengine yako hatarini.

Masuala ya maadili

Protokoto hii imeundwa na siri ya mteja katika akili. Washiriki watakaopata haja ya matibabu au hatua nyingine watatumwa kwa ajili ya matibabu.

Hatari

Maswali mengine yanaweza kuwa na wasiwasi na yanaweza kukufanya ukumbuke mambo ya huzuni.

Mawasiliano

Kwa habari zaidi kuhusu haki zako kama mshiriki wa utafiti unaweza kuwasiliana na mwenyekiti wa Kenyatta National Hospital/ Chuo Kikuu cha Nairobi kamati ya utafiti na maandili, Prof A.N Guantai kwenye nambari 2726300 ext 44355/44102. Unaweza pia kuwasiliana na mtafiti moja kwa moja: Ruth Wambui Mwaura Tel 0721162101.

Fomu ya Idhini

Nambari ya mshiriki …………………… Tarehe…………………………………

Taarifa ya Mshiriki: Mimi, aliyeandikwa chini, najitolea kushiriki katika utafiti huu ambao asili na madhumuni yameelezwa na Ruth Wambui Mwaura. Naelewa kuwa hii ni kwa hiari yangu. Ikiwa nitabadilisha mawazo yangu, ninaelewa kwamba nitaendelea kupata huduma za matibabu.

Saini ya mshiriki (au alama ya idhini)* ……………………………………………………

Tarehe …………………………………………………………………………………..

Saini ya shahidi …………………………………………………………………………...

Tarehe …………………………………………………………………………...............

Saini ya mtafiti ……………………………………………………………………………

Tarehe …………………………………………………………………………………

*Mhusika anaweza kusaini au kutoa ridhaa ya maneno mbele ya shahidi ambaye anasaini kwa niaba yake.

Appendix III: English Social Demographic Questionnaire

Date:…………………………….   **Serial No** ………………….

Age: ……………………..

1. **Gender**   Male   [ ]   Female   [ ]

2. **Marital status**:   Single   [ ]

                                      Married   [ ]

                                      Separated   [ ]

                                      Divorced   [ ]

                                      Widowed   [ ]

3. **Level of Education**: None   [ ]

                                      Primary   [ ]

                                      Secondary   [ ]

                                      College   [ ]

                                      University   [ ]

4. **Occupation**:   Unemployed   [ ]

                          Employed   [ ]

                          Self-employed   [ ]

5. **Religion:**   Catholic   [ ]

                          Protestant   [ ]

                          Muslim   [ ]

                          Others (specify)   [ ]

6. **Income (in Kshs):**   No income   [ ]

                                      Below 5,000   [ ]

                                      5,001- 10,000   [ ]

                                      10,001- 15,000   [ ]

                                      15,001 and above   [ ]

7. **HIV related questions;**

- For how long have you known your HIV+ status? ………………………………

  ……………………………………………………………………………………

- What is your latest viral load count?..

  ……………………………………………………………………………………

- What was your last CD4 count? ……………………………………………………

  ……………………………………………………………………………………

- What is your current treatment regimen?..

  ……………………………………………………………………………………

- For how long have you been on ARVs?...

  ……………………………………………………………………………………

- Any history of opportunistic infections? If yes, what are they?........................

  ……………………………………………………………………………………

- Have you had a history of changing drugs? If yes, what was your past regimen and what is your current regimen?...

  ……………………………………………………………………………………

- Which ARV regimen are you on? First line, Second Line or Third line?..

  ……………………………………………………………………………………

- Have you ever received a mental illness diagnosis? If yes, which one?..............

  ……………………………………………………………………………………

- Have you disclosed you're your status to anyone? If yes who?..........................

  ……………………………………………………………………………………

- Are you a member of any psychosocial support group? …………………..…….

  ……………………………………………………………………………………

- Have you missed your ARVs in the last three months?......................................

  ……………………………………………………………………………………

- If yes what made you miss?..

  ……………………………………………………………………………………

Appendix IV: Kiswahili Social Demographic Questionnaire

Tarehe: ………………..**Nambari ya utafiti**………………………….

Umri: ……………………..

1. **Jinsia**   Mwanaume [ ] Mwanamke [ ]

2. **Hali ya Ndoa**: Bado Kuoa
   a) Kwenye Ndoa [ ]
   b) Tumetengana [ ]
   c) Talaka   [ ]
   d) Mjane   [ ]

3. **Kiwango cha elimu**: Hakuna Rasmi
   a) Shule ya Msingi [ ]
   b) Shule ya Upili [ ]
   c) Chuo   [ ]
   d) Chuo Kikuu [ ]

   Kazi: Wasio na ajira [ ]
      Walioajiriwa [ ]
      Kazi binafsi [ ]

   Dini: Mkatoliki [ ]
      Mkiristo   [ ]
      Muisilamu [ ]
      Nyingineo [ ]

4. **Ajira (Kshs):** Chini ya 5,000   [ ]

                 5,001-10,000   [ ]

                 10,001- 15,000   [ ]

                 15,001 na Zaidi   [ ]

                 Hakuna Mapato   [ ]

5. **Maswali yanayohusu hali ya HIV**

- Umejua hali yako ya HIV+ kwa muda gani?...

  …………………………………………………………………………………

- Viwango vyako vya virusi ni ngapi? ………………………………………

  …………………………………………………………………………………

- Viwango vyako vya CD4 vya mwisho vilikuwa vingapi?............................

  …………………………………………………………………………………

- Uko katika matibabu gani sasa?..

  …………………………………………………………………………………

- Umekuwa kwa matibabu ya kupunguza makali ya virusi vya HIV kwa muda gani?..

  …………………………………………………………………………………

- Uko na historia yoyote ya magonjwa nyemelezi? Kama ndiyo, gani?..........

  …………………………………………………………………………………

- Je, Umekuwa na historia yoyote ya kubadilisha dawa? Kama ndiyo, ulikuwa kwa dawa zipi kitambo na sasa uko kwa zipi?.................................

  …………………………………………………………………………………

- Uko katika laini ipi katika dawa za kupunguza makali ya virusi vya HIV? Ya kwanza, ya pili au ya tatu…………………………………………………

  …………………………………………………………………………………

- Umewahi tambuliwa kuwa na Ugonjwa wa akili? Kama ndiyo, upi?...........

  …………………………………………………………………………………

- Je umeeleza mtu yeyote kuhusu hali yako? Kama ndiyo, nani?....................

  …………………………………………………………………………………

- Wewe ni mwanachama wa kikundi chochote cha msaada wa kisaikolojia?...

  …………………………………………………………………………………

- Je umekosa kutumia madawa ya kupunguza makali ya virusi vya HIV katika muda wa miezi mitatu iliyopita?..

  …………………………………………………………………………………

  Kama ndio, sababu ya kukosa ni nini?..

  …………………………………………………………………………………

Appendix V: Becks Depression Inventory- BDI – English Version

On this questionnaire there are groups of statements. Please read each of the statements carefully, then pick out the one statement in each group which best describes the way that you have been feeling the past week, including today

Circle the number besides the statements in each group before making your choice

1.
   0. I do not feel sad
   1. I feel sad
   2. I am sad all the time and I can't snap of it
   3. I am sad, unhappy that I can't stand it

2.
   0. I am not particularly discouraged about the future
   1. I feel discouraged about the future
   2. I feel I have nothing to look forward to
   3. I feel that the future is hopeless and that things cannot improve

3
   0. I do not feel like a failure
   1. I feel that I have failed more than the average (normal) person
   2. As I look back on my life, all I can see is a lot of failures
   3. I feel I am a complete failure as a person

4
   0. I feel the same about myself as ever
   1. I have lost confidence in myself
   2. Iam disappointed in myself
   3. I dislike myself

5
   0. I get much satisfaction out of things as I used to
   1. I don't enjoy things the way I used to
   2. I don't get real satisfaction out of anything anymore

3. I am dissatisfied or bored with everything

6

0. I don't feel particularly guilty

1. I feel guilty a good part of the time

2. I feel guilty most of the time

3. I feel guilty all the time

7

0. I don't feel I am being punished

1. I feel I may be punished

2. I expect to be punished

3. I feel I am being punished

8

0. I don't feel I am any worse than anybody else

1. I am critical of myself for my weaknesses or mistakes

2. I blame myself all the time for my faults

3. I blame myself for everything bad that happens

9

0. I don't have thoughts of killing myself

1. I have thoughts of killing myself, but I would not carry them out

2. Would like to kill myself

3. I would kill myself if I had the chance

10

0. I don't cry any more than unusual

1. I cry more now than I used to

2. I cry all the time

3. I used to be able to cry, but now I can't even though I want to

11

0. I am no more irritated now than I ever was

1. I get annoyed or irritated more easily than I used to

2. I feel irritated all the time now

3. I don't get irritated at all by the things that used to irritate me

12

    0. I have not lost interest in other people

    1. I am less interested in other people than I used to be

    2. I have lost most of my interest in other people

    3. I have lost all of my interest in other people

13

    0. I make decisions about as well as I ever could

    1. I put off making decisions more than I used to

    2. I have greater difficulty in making decisions more than I used to

    3. I can't make decisions at all any more

14

    0. I don't feel I look any worse than I used to

    1. I am worried that I am old or unattractive

    2. I feel that there are permanent changes in my appearances that make me look unattractive

    3. I believe that I look ugly

15

    0. I can work about as well as before

    1. It takes an extra effort to get started at doing something

    2. I have to push myself very hard to do anything

    3. I can't do any work at all

16

    0. I can sleep as well as usual

    1. I don't sleep as well as I used to

    2. I get tired from doing almost anything

    3. I am too tired to do anything

17

    0. I don't get more tired than usual

    1. I get tired more easily than I used to

    2. I get tired from doing almost anything

    3. I am too tired to do anything

18

0. My appetite is no worse than usual

1. My appetite is not as good as it used to be

2. My appetite is much worse now

3. I have no appetite at all anymore

19

0. I haven't lost much weight, if any, lately

1. I have lost more than five pounds

2. I have lost more than ten pounds

3. I have lost more than fifteen pounds

20

0. I am no more worried about my health than usual

1. I am very worried about my physical problems such as aches and pains; or upsets stomach; or constipation

2. I am very worried about my physical problems and it's hard to think of much else

3. I am worried about my physical problems that I cannot think about anything else

21

0. I have not noticed any recent change in my interest in sex

1. I am less interested in sex than before

2. I am less interested in sex now

3. I have no interest in sex completely

Appendix VI: Becks Depression Inventory- BDI – Kiswahili Version

Yafuatayo ni mafungu ya sentensi. Tafadhali soma kila fungu kwa makini. Chagua kutoka katika kila fungu sentensi ambayo yaelezea vyema ulivyokuwa ukihisi JUMA LILILOPITA NA UNAVYOHISI LEO! Ashiria sentensi moja au zaidi ya moja uliyochagua katika kila fungu kwa <u>kuweka alama</u> mviringo juu ya nambari ya sentensi hiyo. **Hakikisha umesoma sentensi zote katika kila fungu kabla ya kuchagua sentensi iliyo sambamba na unavyohisi**

1

   0. Sina huzuni

   1. Nina huzuni

   2. Nina huzuni wakati wote na siwezi kijiondoa katika hali hii ya huzuni

   3. Nina huzuni sana mpaka siwezi kustahimili/kuvumilia

2

   0. Sijavunjika moyo hasa na siku za usoni

   1. Nahisi nimevunjika moyo na siku za usoni

   2. Nahisi sina ninalo tarajia siku za usoni

   3. Nahisi nimekata tamaa ya siku za usoni, na naona mambo hayawezi kuwa bora zaidi

3

   0. Sijihisi kama nimeanguka maishani

   1. Nahisi nimeanguka maishani zaidi ya mtu wa kawaida

   2. Nkiangalia maisha yangu yaliopita naona nimeanguka sana

   3. Nahisi nimeanguka kabisa maishani

4

   0. Naridhika na mambo kama ilivyo kawaida yangu

   1. Sija furahi mambo kama nilivyokuwa nikifurahia

   2. Sitosheki tena kikamilifu na jambo lolote

   3. Sitosheki wala sichangamshwi na chochote tena

5

    0. Sihisi hasa kama nina hatia fulani

    1. Nahisi nina hatia wakati mwingine

    2. Nahisi nina hatia wakati mwingi

    3. Nahisi nina hatia wakati wote

6

    0. Sihisi kama nina adhibiwa

    1. Nahisi kama naweza kuadhibiwa

    2. Natarajia kuadhibiwa

    3. Nahisi nina adhibiwa

7

    0. Sihisi kama nimeikasirikia nafsi yangu

    1. Nimeikasirikia nafsi yangu

    2. Najidharau

    3. Najichukia

8

    0. Sihisi kama mimi ni mbaya zaidi ya mtu yeyote yule

    1. Najisuta (kujitoa makosa) sana katika makosa yangu ama udhaifu wangu

    2. Najilaumu wakati wote kwa makosa yangu

    3. Najilaumu kwa ovu lolote linalo tendeka

9

    0. Sina wazo lolote kujiua

    1. Nina wazo la kujiua

    2. Ningetaka kujiua

    3. Nitajiua nikipata nafasi

10

    0. Silii siku hizi zaidi ya vile ilivyo kawaida yangu

    1. Nalia siku hizi zaidi ya ilivyokuwa kawaida yangu

    2. Nalia wakati wote siku hizi

    3. Nilikuwa nikiweza kulia, lakini sasa hata nikitaka kulia siwezi

11

    0. Sikasirishwi kwa urahisi siku hizi zaidi ya ilivyo kawaida yangu

    1. Nakasirishwa kwa urahisi zaidi ya ilivyokuwa kawaida yangu

    2. Nahisi nimekasirishwa wakati wote siku hizi

    3. Sikasirishwi kamwe na mambo ambayo yalikuwa yakinikasirisha

12

    0. Sijapoteza hamu ya kujihusisha au kujumuika na watu

    1. Hamu yangu ya kujihusisha na watu imepungua zaidi ya ilivyokuwa

    2. Nimepoteza sana hamu yangu ya kujihusisha na watu

    3. Nimepoteza hamu yangu yote ya kujihusisha na watu

13

    0. Ninafanya uamuzi kuhusu jambo lolote kama kawaida

    1. Ninahairisha kufanya uamuzi zaidi ya vile nilivyokuwa nikifanya

    2. Nina uzito mkubwa wa kufanya uamuzi kuliko hapo awaki

    3. Siwezi tena kufanya uamuzi wa jambo lolote lile

14

    0. Sihisi kuwa naonekana vibaya zaidi ya nilivyokuwa

    1. Nina wasi wasi kuwa naonekana sivutii

    2. Ninahisi kuwa kuna mabadiliko yasio ondoka kwenye umbo langu yanayofanya nisivutie

    3. Nina amini kuwa nina sura mbaya

15

    0. Naweza kufanya kazi kama vile ilivyokuwa hapo awali

    1. Nilazima nifinya bidii, ndipo nianze kufanya jambo lolote

    2. Inabidi nijilazimishe sana ili niweze kufanya jambo lolote

    3. Sitaweza kabisa kufanya kazi yoyote

16

    0. Ninalala kama kawaida yangu

    1. Silali vyema kama nilivyo kuwa nikilala hapo awali

    2. Naamka mapema kwa saa limoja au masaa mawili, ambayo sio kawaida yangu, halafu ni vigumu kupata usingizi tena

3. Naamka mapema zaidi ya masaa mawili, ambayo sio kawaida yangu, halafu siwezi kupata usingizi tena

17

    0. Sichoki zaidi ya nilivyokuwa nikichoka hapo awali

    1. Nachoka kwa urahisi zaidi ya kawaida yangu

    2. Nachoshwa (Nachokeshwa), karibu na kila jambo ninalofanya

    3. Ninachoka sana hata siwezi kufanya lolote

18

    0. Hamu yangu ya chakula sio mbaya zaidi ya vile ilivyokuwa hapo awali

    1. Hamu yangu ya chakula sio mbaya zaidi kama vile ilivyokuwa hapo awali

    2. Hamu yangu ya chakula ni mbaya zaidi siku hizi

    3. Sina tena hamu ya chakula hata kidogo

19

    0. Sijapunguza uzito wa mwili wa kuonekana hivi karibuni

    1. Nimepunguza uzito wa mwili zaidi ya kilo mbili

    2. Nimepunguza uzito wa mwili zaidi ya kilo tano

    3. Nimepunguza uzito wa mwili zaidi ya kilo saba

20

    0. Sina wasiwasi usio wa kawaida kuhusu haki yangu ya afya

    1. Nina wasiwasi kuhusu shida za mwili kama vile maumivu hapa na pale; au shida ya tumbo,au kufunga choo

    2. Nina wasiwasi kuhusu matatizo ya mwili mpaka inakuwa ni vigumu kuwaza jambo lengine lolote

    3. Nina wasiwasi kuhusu matatizo ya mwili mpaka siwezi kuwaza jambo lengine lolote

21

    0. Sijaona mabadiliko yoyote hivi karibuni kuhusu hamu yangu ya kufanya mapenzi

    1. Hamu yangu ya kufanya mapenzi imepungua zaidi ya vile ilivyokuwa

    2. Hamu yangu ya kufanya mapenzi imepungua sana siku hizi

    3. Nimepoteza kabisa hamu yangu ya kufanya mapenzi