THE PSYCHOSOCIAL ASPECTS AMONG ADULT CANCER PATIENTS ATTENDING ONCOLOGY CLINIC AT MOI TEACHING AND REFERRAL HOSPITAL, ELDORET, KENYA

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DECLARATION

I Milkah Obwenyi Angachi declare that this research dissertation entitled the psychosocial aspects among adult cancer patients attending oncology clinic at Moi Teaching and Referral Hospital, Eldoret, Kenya is my original work, carried out in partial fulfilment of the requirements for the award of degree of Masters of Science in Clinical Psychology of the University of Nairobi. I have not presented the same for the award of any degree or diploma in any other university.

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CERTIFICATE OF APPROVAL

This is to certify that this research dissertation entitled the psychosocial aspects among adult cancer patients attending oncology clinic at Moi Teaching and Referral Hospital, Eldoret, Kenya has been submitted for the award of the degree of Master of Science in Clinical Psychology of the University of Nairobi. This work has been carried out independently by Milkah Obwenyi Angachi with our approval:

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LIST OF ABREVIATION AND ACRONYMS

AIDS Acquired Immune Deficiency syndrome

AMPATH Academic Model Providing Access to Healthcare

BDI Becks depression index

CBT Cognitive Behavioural Therapy

DSM-IV Diagnostic and Statistical Manual of Mental Disorders IV

FACIT- sp Functional Assessment of Chronic Illness Therapy—Spiritual Well- Being

GAD, Generalised anxiety disorder

GLOBOCAN Global Burden of Cancer Study

HADS Hospital Anxiety and Depression Scale

HIV Human immunodeficiency virus

HPV Human Papilloma Virus

ICD-10 The International Classification of Diseases 10

KEMRI Kenya Medical Research Institute

KNH Kenyatta National Hospital

MDD, Major depressive disorders

M.I.N.I Mini International Neuropsychiatric Interview

MTRH Moi Teaching and Referral Hospital

OCD Obsessive-compulsive disorder

ORCI Ocean Road Cancer Institute

PD Personality disorder

PRIME-MD The Primary Care Evaluation of Mental Disorders

PTSD Post traumatic stress disorder

QOL Quality of life

SCID Structured Clinical Interview for the DSM-IV

SPSS Statistical packages for social sciences

USNCCN United States National Comprehensive Cancer Network

ABSTRACT

Background: Cancer diagnosis is associated with increased chance of developing psychological, social and psychiatric disorders, which impact on patient's health state and medical treatment. Psychiatric disorders are experienced by cancer patients at all stages of disease. The number of people diagnosed with cancer is on the increase every year in the developing countries, Kenya being one of them and the burden of cancer continues to grow. Psychological and social issues among adults cancer patients are well documented in the rest of the world, Kenya has a little amount of data in place. A critical part of cancer care is the recognition of the levels of psychological and social problems that present among patients with cancer and determination of the appropriate level of intervention, ranging from brief counselling or psychosocial interventions and social support to medication and specific coping styles.

Objectives: The main objective was to determine the psychological and social issues among adult cancer patients seen at the oncology clinic of Moi Teaching and Referral Hospital (MTRH), Eldoret. The Specific objectives were to determine the psychological, social issues that are associated with cancer diagnosis and socio-demographic characteristics and clinical state of the patients diagnosed with cancer.

Methodology: This was a cross-sectional and descriptive study. The study participants diagnosed with cancer were enrolled and interviewed using researcher designed socio-demographic and clinical questionnaire and the Mini International Neuropsychiatric Interview for adults (M.I.N.I Plus) instrument. The participants were assessed after informed consent was obtained. Ethical approval was obtained from Institutional Research and Ethics Committee (IREC) Moi Teaching and Referral Hospital (MTRH) Moi University and Ethics and Research Committee Kenyatta National Hospital/ University of Nairobi before conducting the study.

Data analysis: There was double entry of data followed by cleaning weekly. Data was entered into Microsoft excel worksheet then exported to Statistical packages for social sciences (SPSS) version 16.0 for analysis to describe each DSM-IV diagnosis of each participant by summing up the 'yes' responses that met each criterion for DSM-IV Axis I disorders. Results are presented in form of tables, charts and graphs

Result: A total of 138 respondents participated in the study. Majority of the study participants were females at 71.7% (99) whereas males were 28.3% (39). Breast cancer at 34.8% (48) and cervical cancer at 12.3% (17) were the commonest. Most of the participants were in the advanced stages between stage III at 33.3% and IV at 39.1%. Among the participants major depression episode (current, past, with melancholic features) was noted in 42%, 15% and 21.7% respectively. 14.5% had dysthymia current. Suicide risk high, moderate and low risks were 2%, 2.9% and 8% respectively. Panic disorder current without agoraphobia was 2.2%, with agoraphobia 6.5% and agoraphobia without history of panic disorder was 8.7%. Post traumatic stress disorder was 13% social phobia was 7.2%. Obsessive compulsive disorder was 4.3%. Generalised anxiety disorder was 12.3%. Hypomanic episodes was at 5.1%; manic episodes at 7.2%. The less frequent disorders were alcohol and drug dependency/ abuse, Psychotic disorders, Anorexia nervosa and Bulimia nervosa were each affecting less than 1% of the patients. Antisocial personality disorders accounted for only 1.4% amongst the cancer patients. None of the participants had the psychosocial issues documented in the clinical file notes. Only 7.9% (11) reported to have discussed the psychological and social concern with the care givers that is a 92.1% treatment gap.

Conclusion: Major Depressive Episode, anxiety disorder, Obsessive compulsive disorder, Posttraumatic stress disorder were the main psychiatric disorders noted. Other disorders that were found among cancer patients at MTRH include antisocial personality, social phobia, and alcohol and drug dependency/abuse. Psychosocial oncology services for patients and families were found to be minimal.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background information

Cancer is a disease that results from a breakdown of the system that control normal cell growth and cell death leading to over production of cells, destruction of nearby tissues and spread of the disease to other organs of the body (metastasis) (Hanahan & Weinberg, 2000). Cancer arises from one single cell following abnormal changes in the cell's genetic material. The genetic changes affect the mechanisms that regulate normal cell growth and cell death leading to uncontrolled cell growth (Powe and Finne, 2003). Cancerous cells proliferate uncontrollably and invade neighbouring tissues and eventually, spreading to other parts of the body (Borboa, M, 2009). If the spread is not controlled, cancer can result in death.

Cancer is caused by interaction between genetic and environmental factors (Travis, William *et al.,* 2010). Environmental factors accounts for 90–95% of cancer cases with only 5–10% due to genetics (Anand *et al.,* 2008). Environmental factors include tobacco (25–30%), diet and obesity (30–35%), infections (15–20%), radiation causes up to 10%, stress, lack of physical activity, and environmental pollutants among others (Anand P *et al.,* 2008). viral infection such as Human immunodeficiency virus /AIDS that causes Kaposi's sarcoma, Human Papilloma Virus (HPV) that causes cervical cancer or Hepatitis B & C that causes Liver cancer and lymphomas. There are bacterial infections such as Helicobacter Pylori that can cause cancer of stomach and parasitic infestations such as schistosomiasis may be responsible in causing cancer of bladder.

Cancers are classified in two ways, by the type of tissue in which the cancer originates (histological type) and by primary site in the body where the cancer first developed. There are several types of cancer depending on the tissue of origin. Carcinoma is the cancer that begins in the skin or tissues that line or cover organs (epithelial cells). Sarcoma is a cancer that begins in

bone, cartilage, fat, muscle, blood vessels or other connective tissue. Leukaemia is cancer that starts in blood-forming tissues such as bone marrow (National Cancer Institute, 2014). Lymphoma and multiple myeloma are cancers that begin in cells of the immune system. Due to its nature, cancer is difficult to treat.

Medical history and physical examination make it possible to find signs and symptoms of cancer respectively. Investigations range from laboratory and radiological findings and histopathology of the tissues. Tumor staging is done by oncology experts for the patient. This helps in planning the treatment. A multidisciplinary approach is designed to present important clinical information, uniformly screening, diagnosing, staging, determining prognosis and treatment for the patient. Various modes of therapy are used for treatment of cancer that include medical-chemotherapy, surgical, hormonal therapy and radiation therapy (Cancer.Net Editorial Board, 2014). The primary aims of cancer treatment are to cure the patient, prolongation of life and to improve quality of life.

1.2 Psychological and social aspects of Cancer

Cancer diagnosis is the most feared condition because of the severity and distress associated with the disease, treatment process and perceived mortality. This causes psychological agony in patients and family members because of the inevitable eventuality of the disease mortality, pain and suffering (Spencer, S.M., *et al*, 1998). Diagnosed patients with cancer do give a picture of fear of interrupted life plans, change in body image, change in life style and fear of death. This is often a true picture of terminal illness though not a complete assessment of the many effects a terminal illness has in an individual. The physical challenges of a terminal illness are clearly seen, but the psychological, emotional, and mental disturbances are not. People diagnosed with incurable diseases that are conscious of impending death deal with greater questions than '*will this treatment make me sick?' 'Am I going to die?'* The fear can become more intense if they are told that the cancer has spread or has come back (Weisman, A.D, and Worden, J.W., 1977). Shock, anxiety, uncertainty and for some people, depression may set in. They may have

disbelief, or numbness. As time goes on they may feel angry, resentful, frightened, sad, or overwhelmed. They may also feel guilty about having these feelings (Lilijana and Mojca, 2004).

Patient with cancer usually see multiple specialists (for example, surgeons, radiation oncologists, medical oncologists), and care is often not well coordinated. The patient is not given care by a single, trusted physician. Fragmentation of care among cancer patients increases medical cost, emotional and psychological problems hence it is psychological burden. Outpatient offices and clinics are extremely busy; the length of time doctors can spend with cancer patients is often limited, and the opportunity to bring up psychosocial problems may be lost. Receiving adequate information and the ability to ask questions in a comfortable way are basic needs for addressing psychosocial concerns (National Academy of Sciences, 2004).

There is reluctance to discuss psychosocial concerns with the busy oncologist provider. There is stigma associated with seeking or using mental health services, physicians' failure to ask patients about distressing emotional symptoms and the lack of simple, rapid instruments for screening for psychosocial distress are barriers to the symptoms receiving appropriate recognition, diagnosis and treatment by supportive and psychosocial services.

Social and familial challenges occur in terminal illness. The effect of such a diagnosis reaches every facet of life including work, family, the will to live (or die), and one's coping mechanisms which limits interaction in cancer patients. This may make one not to interact with others on the same level as before his or her diagnosis. An individual diagnosed with advanced cancer may worry of financial concerns, anxiety about death, and emotional welfare of family members (**Kristjanson and Aoun, 2004)**

Some individuals choose to continue working as long as physical conditions allow, others choose to live out remaining days at home with family, and still others consider hastening death (Westaby and Versenyi, 2005). The mental, emotional, and psychological processes that arise

from a terminal diagnoses are complex (Report of a joint working party of the Royal College of Physicians and the Royal College of Psychiatrists, 2003)

The domestic and working lives may be interfered. Some patients with cancer experience problems with daily living, finances and employment. The fear for patients with cancer is that they may lose their independence and dignity. That is the person's belief that the essence of who they are is still intact, despite the illness. Street and Kissane, (2001) stated that "dignity is a subjective experience, perceived individually; that each person has their own view about what is dignified for themselves and others". Duarte Enes, 2003 identified four themes to dignity; in relationship and belonging, having control, being human and being heard and understood.

Depression

Depression refers to a spectrum of mental health problems characterised by the absence of positive affect. It is a response to perceived loss. Depressive states exist on a continuum from normal sadness that accompanies life limiting disease to major affective disorder (Passik S.D., and Kirsh, K., 2004). A diagnosis of cancer and awareness of associated losses may precipitate feelings similar to bereavement. The loss may be of parts of the body such as a breast or hair, the role in family or society, or impending loss of life. Severe and persistent depressive disorder is up to four times more common in cancer patients than in the general population, occurring in 10-20% during the disease (White and Macleod, 2002).

Depression presents with a loss of interest and enjoyment in ordinary things and experiences low mood, and a variety of associated emotional, cognitive, physical, and behavioural symptoms. Daily functioning is often impaired (NICE Clinical Guidance 2009). When depression sets in, one may withdraw from loved ones. They may stop some daily activities and have fewer everyday pleasures to enjoy. Majority of these patients report a wide variety of sleep disturbances, after cancer diagnosis, with the three most frequent elevated symptoms being not feeling rested in the morning, difficulty staying asleep, and difficulty falling asleep.

Some patients have insomnia problems prior to their cancer diagnosis. Sleep disturbances can result in a variety of psychological and somatic conditions, such as an increase in fatigability, irritability, aggressiveness, cognitive impairments, mood changes, poor coordination, psychomotor retardation, and decreased tolerance for pain (Chuman, 1983). Depression is a major cause of impaired quality of life, reduced productivity, and increased mortality.

Distress is the unpleasant experience of an emotional, psychological, social, or spiritual nature that interferes with one's ability to cope with cancer and its treatment. It extends in a continuum ranging from common normal feelings of vulnerability, sadness and fears, to problems that can be disabling such as depression, anxiety, panic, and social isolation and spiritual crisis as defined by USNCC network (US NCCN, 2004). Individuals with cancer diagnosis or treatment regimen may experience very different levels of distress. A high level of distress could result from an individual's perceptions that either the demands of a situation are very high or his or her resources are very low (or both) (American Psychiatric Association, 2000).

Anxiety is the response to a perceived threat. It is manifested as apprehension, uncontrollable worry, restlessness, panic attacks, and avoidance of people and of reminders of cancer, together with the signs of the autonomic arousal (Craig and Macloed 2002). Patients may overestimate the risks associated with treatment and the likelihood of a poor outcome. Anxiety may worsen perceptions of physical symptoms of the disease like breathlessness in lung cancer (Roy Castle Lung Cancer Foundation, 2010) or post-traumatic stress symptoms such as intrusive thoughts and avoidance of reminders of cancer that occasionally follow diagnosis or treatment that has been particularly frightening. It is common at disease milestone, especially at initial diagnosis, time of recurrence, and progression to the terminal phase. In patients whose disease is stable or in remission, anxiety frequently occurs in conjunction with routine re-assessment. Some

patients may also develop phobias and conditioned vomiting in relation to unpleasant treatments such as chemotherapy (Stark D.P and House, A, 2000).

Anxiety can be part of normal adaptation to cancer. The reactions are time limited and may motivate patients and families to take steps to reduce anxiety like to gain information, which may assist in adjusting to the illness. If the anxiety reactions are prolonged or intense they are classified as adjustment disorders. These disorders can negatively affect quality of life and interfere with a cancer patient's ability to function socially and emotionally. Stress associated with cancer diagnosis can trigger the onset of anxiety disorder in a patient without a pre-morbid psychiatry diagnosis. Phobias can complicate medical procedures and can result in the refusal of necessary medical intervention or tests (Razavi and Stiefel, 1994). Anxiety can at times affect a person's behaviour concerning his or her health, contributing to a delay in or neglect of measures that might prevent cancer (Lauver D, Ho CH, 1993)

1.3 Palliative care

People with serious terminal illnesses do get palliative care that assists them in alleviating pain, or stresses. Palliative care which is care for the terminally ill is appropriate for patients in all disease stages that include those undergoing treatment for curable illnesses and those living with chronic diseases, as well as patients who are nearing the end of life. The palliative care is a multidisciplinary issue. The approach includes patient care that rely on input from physicians, pharmacists, nurses, chaplains, social workers, psychologists, and other allied health professionals in formulating a plan of care to relieve suffering in all areas of a patient's life. This approach allows the palliative care team to address physical, emotional, spiritual, and social concerns that arise with advanced illness (Jennifer S. Temel, *et al.*, 2010).

World Health Organization describes palliative care as "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness,

through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual (WHO, 2002).

Most physicians have traditionally concentrated on trying to cure patients. The treatment of cancer has got to extend beyond the physical complaints to include psychosocial factors that significantly affect the patient's quality of life. Clinician therefore must always care for the whole person. Although the physician's initial therapeutic goal is to cure the disease, cancer is often incurable. Psychological treatment is part of palliative care that is given to patient with cancer so as to make them be able to deal with their unique problem individually and as a family (Areej El-Jawahri, *et al.*, 2011).

The study aimed at finding out the psychosocial issues among adult cancer patients that may arise on patients with cancer at the Moi Teaching and Referral Hospital.

1.4 Purpose of the study

The purpose of the study was to find out the psychosocial aspect of adult patients with cancer seen at the oncology clinic at Moi Teaching and Referral Hospital, Eldoret.

1.5 Problem statement

The global burden of cancer continues to increase because of the aging and growth of the world population alongside an increasing adoption of cancer-causing behaviours, particularly smoking, in economically developing countries (Jemal *et al.*, 2011). Based on the Globocan, (2008) estimates (http://globocan.iarc.fr. 2010), about 12.7 million cancer cases and 7.6 million cancer deaths are estimated to have occurred in 2008; of these, 56% of the cases and 64% of the deaths occurred in the economically developing world (Jemal *et al.*, 2011). Breast cancer is the most frequently diagnosed cancer and the leading cause of cancer death among females, accounting for 23% of the total cancer cases and 14% of the cancer deaths. Lung cancer is the

leading cancer site in males, comprising 17% of the total new cancer cases and 23% of the total cancer deaths (Ferlay *et al.*, 2010). The mortality burden for lung cancer among females in developing countries is as high as the burden for cervical cancer, with each accounting for 11% of the total female cancer deaths. Although overall cancer incidence rates in the developing world are half those seen in the developed world in both sexes, the overall cancer mortality rates are generally similar (Jemal *et al.*, 2011).

Cancer survival tends to be poorer in developing countries, most likely because of a combination of a late stage at diagnosis and limited access to timely and standard treatment. Clinicians, public health professionals, and policy makers can play an active role in accelerating the application of such interventions such as psychosocial alongside medical care globally. Estimates show that the burden may hit 21 million deaths by the year 2030, with nearly two thirds of all cancer diagnoses occurring in low- and middle-income countries (Ahmedin Jemal *et al.*, 2011).

In 2002, WHO estimates that there were more than 500,000 annual deaths from cancer in Africa with 40% being attributable to modifiable risk factors such as chronic infection and tobacco use (Sepulveda C *et al.*, 2003). The African continent lacks resource and infrastructure to address the cancer disease burden; survival rates as a result are significantly lower than in developed countries and patients' expectations of disease-modifying oncological treatment are low (Murray SA, Grant E, Mwangi-Powell F, 2005). A decade ago in East Africa, there were an estimated 175,000 persons living with cancer, and that number has dramatically increased, with cancer projected to become the leading cause of death in sub-Saharan Africa over the next few years. Unfortunately, as the threat of early death and disability from chronic diseases like cancer grows in sub-Saharan Africa, it is clear that countries like Kenya have very little in place to meet this challenge (Mutuma G.Z, and Korrir A.R, 2003).

In Kenya, there is scanty literature on the incidence of cancers in general. However, it has been noted that cancers of the head and neck are the most common. Oesophagus and prostate cancers lead in frequency among male adults. It has also been noted that cancers of the breast and cervix represent a large proportion (43.3%) of all reported cancers in female (Mutuma G.Z, Korrir A.R, 2003).

According to Eldoret cancer registry, cancer of the cervix is the most common among females followed by breast and oesophagus. In males cancer of the oesophagus is the commonest and it is followed by cancer of the skin, Non Hodgkin Lymphoma and prostate cancer respectively (Tenge C.N *et al.*, 2009). Therefore this brings in the fact that Moi Teaching and Referral Hospital is handling many patients with cancer. Apart from the hospital set up they also have satellite clinics in North Rift and Western Kenya where they follow up and treat patient with cancer on specific days.

There is stigma associated with seeking mental health services for cancer patients (Jimmie C. H, 2002). They feel bad that they have to expose themselves physically and psychologically to their families, community and the health workers and consider their illness as a sign of weakness. When these patients are referred to a psychiatrist to seek help, they feel traumatised to be associated with mental illness. They may want to keep their issues to themselves not to be exposed to be too sick or weak (Charmaz K., 2000).

There is also lack of simple, rapid instruments for screening for psychosocial distress at these clinics. Skilled personnel that could be able to use these instruments are few and the instruments are also not available locally.

Psychological impact on cancer patients has been an important aspect of Clinical Oncology. The study therefore sought to find out psychosocial issues among adult cancer patient attending Oncology clinic at Moi teaching and referral hospital, Eldoret, Kenya.

1.6 Justification

Moi Teaching and Referral Hospital (MTRH) is the second National and Referral Hospital in Kenya which handles many illnesses. Patients with cancer are seen at the oncology clinic based at AMPATH Centre within the hospital. Cancer management in the hospital Oncology clinic is mainly diagnostic and physical treatment and symptom relieve in nature. Very little if any palliative care and psychosocial management is provided to these cancer patients. Few if any studies have been done to look at psychosocial aspect among cancer patients at the oncology clinic of the MTRH. This study endeavoured to answer this question and add to the body of knowledge.

The study may also act as a spring board for other relevant studies to be done among these cancer patients and the resulting issues at the MTRH.

This study may provide information to the clinical staff, administration of the hospital and policy makers on the importance of psychosocial interventions among patients with cancer.

1.7 Objectives of the study.

1.7.1 Main objective

The main objective was to determine psychological and social issues among adult cancer patients seen at the oncology clinic at the Moi Teaching Referral Hospital.

1.7.2 Specific objectives

- To determine the social demographic characteristics and clinical state of the patients diagnosed with cancer.
- To determine psychological issues that are associated with cancer diagnosis.
- To determine social issues that are associated with cancer diagnosis.

1.8 Hypotheses

Null Hypothesis

1. There are no significant psychological issues among cancer patients.

2. There are no significant social issues among cancer patients.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Cancer has increased despite advanced medical care globally. As the world's population continues to grow and age, the burden of cancer will inevitably increase, even if present incidence rates remain the same. According to World Health Organization (WHO) cancer is now the third leading cause of death worldwide. Approximately 10.9 million people are being diagnosed with cancer world over annually. It is estimated that 7.4 million deaths occurred in 2004 due to cancer (WHO factsheet 297, 2010)

In 2007, cancer caused about 13% of all human deaths worldwide (7.9 million). Rates are rising as more people live to an old age and as mass lifestyle changes occur in the developing world (Jemal A *et al.,* 2011). GLOBOCAN estimated that 7.6 million cancer deaths occurred worldwide in 2008. Lung cancer accounted for 1.4 million that is 18.2% population, stomach cancer accounted for 0.7 million that is 9.7% of population, liver cancer 0.7 million that is 9.2% of the total population, colorectal cancer was responsible for 0.61 million that is 8.1% of the total population and female breast cancers estimate was 0.5 million that is 6.1% of the total for women. These were the most common causes, accounting for more than half of all cancer deaths (Ferlay J, *et al.* 2010). While more than half a million Americans died from cancer in 2007(Jemal *et al.*, 2007), numerous others were being effectively treated and will survive cancer-free for many years. Still others will have a type of cancer that is chronic and that will need to be controlled by intermittent or continuous treatment. By 2030, the global burden is expected to grow to 21.4 million new cancer cases and 13.2 million cancer deaths simply due to the growth and aging of the population, as well as reductions in childhood mortality and deaths from infectious diseases in developing countries (Ferlay *et al.,* 2008). More than 70% of all cancer deaths occur in low- and middle-income countries (WHO factsheet 297, 2010).

The most recent data of 2012, there were an estimated 14.1 million new cases of cancer in the world: 7.4 million (53%) in males and 6.7 million (47%) in females (Ferlay J, *et al.* GLOBOCAN 2012). It is predicted that there will be 23.6 million new cancer cases worldwide each year by 2030, if recent trends in incidence of major cancers and population growth are seen globally in the future, with slightly larger growth in low and medium income countries (Bray F, Jemal A, Grey N, *et al*, 2012).

Africa spends a lot of resources on prevention and cure of infectious diseases and malnutrition as opposed to cancer patients (The International Network for Cancer Treatment and Research, 2014). Oncology in Africa is practiced by the medical services after the local traditional healers have been sought by the cancer patients leading to devastating effects on the natural history of the tumours (Hisham and Yip, 2004). This leads to over 95% of cancer patients in the African countries being diagnosed at the late- or end-stage disease. This may be due to the low level of cancer awareness between the population and the health workers, cultural practices and limited access to specialized care which are usually non-existent in these countries (Loehrer PJ Sr, *et al.* 1991).

Falagas, M.E *et al.*, (2007) identified 31 studies examining the association of various psychosocial parameters with general breast cancer disease free survival and 6 studies examining whether psychological intervention influences the disease outcome. Of the 31 studies, 25 (80.6%) showed a statistically significant association between at least one psychosocial variable and disease outcome. Parameters associated with better breast cancer prognosis are social support, marriage, and minimizing and denial, while depression and constraint of emotions are associated with decreased breast cancer survival.

In Malaysia a study of 752 new cases of breast cancer patients were seen in the University of Malaya Medical Centre. The average tumour size was 4.2 cm and that 30% to 40% were in late stages. The delay in presentation of breast cancer was attributed to a strong belief in traditional

medicine, the negative perception of the disease, poverty and poor education, coupled with fear and denial (Hisham and Yip, 2004).

Failure to diagnose cervical cancer at an early stage results into a chronic illness. It becomes irreversible and it involves multiple areas of functioning beyond physical body. The patient may face separation from family friends and source of gratification. There are losses of key roles, disruption of plans for the future, distressing emotions such as anxiety, depression and helplessness (Turk, 1979).

In sub-Saharan Africa, the AIDS epidemic has created a cancer known as Kaposis sarcoma. The cancer in East and Central Africa occurred as a result of AIDS epidemic. Kaposis sarcoma became more common with 57 000 new cases occur in Africa each year and 52 000 patients die of this disease annually. (Parkin, M.D *et al.,2002*).

Masika *et al*. (2012) in Tanzania studied cancer patients at Ocean Road Cancer Institute (ORCI) in Dar es Salaam and reported a low level of health related quality of life, a high level of symptoms, and a large number of unmet needs of emotional and financial support, pain relief, and access to the health care. The high score for pain points out that ORCI is facing severe challenges regarding care and treatment.

2.2.0 Psychosocial issues and cancer

Psychosocial distress among cancer patients has been assessed among several studies. Studies done by Derogatis *et al* (Derogatis LR *et al*, 1983) from three cancer centers with a total number of 215 patients looked at the prevalence of psychiatric disorders and reported that 50% of patients will have a normal response to cancer in terms of day to day stress. The other 50% will present with adjustment disorders with depressed or anxious symptoms and among these 50%, 20% of patient will have major depressive episode.

Upon diagnosis of cancer on a patient, the news can break the heart before proper preparation is made. Patients may have fear of death, disruption of life plans, changes in body image and self-esteem, changes in social role, change in lifestyle, financial concerns and they experience varying levels of stress (Artherholt and Fann, 2012). Clinical and epidemiological studies over the last 30 years have identified psychosocial factors to include stress, chronic depression and lack of social support as risk factors for cancer progression. Support is stronger for links between psychological factors such as stress, depression and social isolation and disease progression (Steel *et al*, 2007).

Psychosocial stress has been related to impaired immunity in cancer patients. The long-term activation of the stress-response system and the subsequent overexposure to cortisol hormone and other stress hormones can disrupt almost all body's processes. Cortisol hormone can weaken the activity of the immune system. It also has a negative-feedback effect on interleukin-1which is useful in combating some diseases (Besedovsky *et all* 1986). Psychosocial factors, such as social support and distress, are associated with changes in the cellular immune response, not only in peripheral blood, but also at the tumour level (Lutgendorf, 2005).

Psychological variables are thought to influence the course of cancer and this was based on data from 25 independent studies which showed mortality rates of up to 25% higher in patients experiencing depressive symptoms and up to 39% higher in patients diagnosed with major or minor depression. There was no evidence that adjusting for known clinical prognostic factors diminished the effect of depression on mortality on these cancer patients (Satin *et al.*, 2009). This has presented evidence that depression predicts mortality, but not progression, in cancer patients.

Following cancer diagnosis, patients report problems in coping with work, caring for their family as well as severe pain that interferes with their general social life (Baileff, 2000). They

indicate less satisfaction with their affected ability to perform household duties due to fatigue and they have difficulty of sharing their problems with others. A forced regression occurs requiring an individual to surrender at least temporarily the autonomy and environmental mastery that characterises the psychologically mature adult (Proshansky *et al*, 1979).

White and MacLeod, (2002) on the study of Psychological effects of Cervical Cancer found that although Cancer patients develop psychiatric illness, most of them experience psychosocial problems. These include fatigue, fear, problems with finances, employment, childcare, other family worries, and existential as well as doubt. Klee *et al*, (2000) also found that compared to the general population, patients with cervical cancer have a high risk of developing Psychological distress that requires intervention. This concurs with a report done on patients admitted at Ocean road Cancer institute in Dar es Salaam Tanzania which showed psychiatric morbidity on cancer patients (Swai, 2011). Swai found out that the three leading psychiatric morbidities from this work was pain with psychological factors and general medical condition 40.7 %, suicidality 38.7% and depressive episode 28.0 % from a study population of 131 cancer inpatient. From the report it is evident that psychiatric morbidity was high among patients and goes undetected.

Ndetei *et al* (2012) did a study on Psychological and social profile among cancer patients in Kenyatta National Hospital. The results showed that there is a high prevalence of depression (44%) and anxiety (69.2%) disorders among the patient. The prevalence rate of depression was much higher than in the general population. The study found out that 93% of cancer respondents who had stage 3 and 4 cancers had severe depressive disorder. These results therefore confirmed that much of the psychiatric morbidity experienced by respondents with cancer goes unrecognized, and thus untreated, by healthcare providers. The study concurs with Felagas *et al* (2009) where patients with cancer usually see multiple specialists (example, surgeons, radiation oncologists, medical oncologists), and care is often not well coordinated the

patient is not given care by a single, trusted physician. Fragmentation of care is a psychological burden; In addition, the outpatient offices and clinics are extremely busy; the length of time doctors can spend with patients is often limited, and the opportunity to bring up psychosocial problems may be lost. Receiving adequate information and the ability to ask questions in a comfortable way are basic needs for addressing psychosocial concerns.

In another study by Ndetei, D.M *et al.,* 2011 at Kenyatta national hospital oncology clinic it found out that there was a strong social -emotional support from contact persons for whom they not only talked to frequently but also had their contact persons and also shared frequently when they had problems. This showed that social integration of the cancer respondents was an important part of their treatment. This was an indication of good psycho social support for these cancer respondents.

Barbara Rehse and Ralf Pukrop, (2002) in Germany did a study on Effects of psychosocial interventions on quality of life in adult cancer patients. Results confirmed that psychosocial interventions reveal a positive impact on Quality of Life (QoL) in adult cancer patients. The most important moderating variable was duration of psychosocial intervention with durations of more than 12 weeks being significantly more effective than interventions of shorter duration. They also found out that stability and trustfulness of the relationship between patient and therapist were the most influential factors for psychotherapeutic treatment success duration of at least 12 weekly sessions seems to be necessary to establish such a relationship. The quality of the relationship between patient and therapist was also found to be one of the best predictors for success rates of psychological treatment in general.

Anxiety and depression commonly occur in cancer patients who are facing multiple biological and psychosocial stressors. Biologic stressors include the cancer burden, treatment morbidity, neurobiological changes, pain, and physical feelings. Psychosocial stressors include uncertainty, loss of control, changes in life path, and increased dependency, as well as changes

in role functioning, appearance, and identity (M. Li *et al* 2010). Anxiety and depression can develop at different points on the treatment continuum from the point of abnormal finding to diagnosis, initiation or completion of treatment, progression of disease, survivorship, and throughout palliative care (K. Miller *et al* 2010). This is also true with the findings of Ndetei *et al.*,(2012).

2.2.1 Anxiety: Generalised anxiety disorder, obsessive compulsive disorder and post traumatic stress disorder.

Anxiety is a state of undirected arousal following the perception of threat or unresolved fear. It manifests as apprehension, uncontrollable worry, and avoidance of people and or reminders of the threat. Generalized anxiety disorder, is characterized by persistent worry about major or minor concerns. Obsessive-compulsive disorder (OCD) one of the most common serious mental illnesses (Heyman, Mataix-Cols, & Fineberg, 2006). It is an anxiety disorder in which the one is trapped in a pattern of repetitive thoughts and behaviours that are senseless and distressing but extremely difficult to overcome and they interfere with everyday life. The condition has important implications for social functioning, school and family and quality of life (Eisen et al., 2006; Lochner et al., 2003). A survey conducted in the early 1980s by the National Institute of Mental Health (NIMH) showed that OCD affects more than 2% of the cancer population. OCD strikes people of all ethnic groups, males and females are equally affected. In Post-traumatic stress disorder (PTSD), Cancer patients try to avoid thoughts of the illness and studies have reported stress symptoms like avoidant behaviours, intrusive thoughts, and heightened arousal in cancer patients ranges from 3% to 4% in early-stage cancer patients recently diagnosed to 35% in patients evaluated after treatment (Solomon Z, 1987).

Cancer patients experience anxiety and depressive symptoms while undergoing screening test, when the patient is waiting for the results and when receiving diagnosis of cancer results, during treatment or anticipating recurrence or eminent death (Fevre P.L *et al.*, 1999). Anxiety

can sometimes affect a person's behaviour regarding his or her health, contributing to a delay in or neglect of measures that might prevent cancer (Gram and Slenker, 1992).

Anxiety occurs to varying degrees in patients with cancer and may heighten as the disease progresses or as treatment becomes more aggressive. As cancer spreads or treatment becomes more intense, respondents become more anxious and depressed (Henriksson M. M, 1995).

Stark *et al.*, (2002) did a study among patients with cancer and found that 44% reported some anxiety; 23% reported significant anxiety. In Cancer patients with advanced disease, anxiety is not caused by fear of death but by the issues of uncontrolled pain, isolation, abandonment, and dependency. Their concern frequently center on loss of control or independence, strained finances, and family dynamics (Hackett *et all.*, 1987).

Patients who have problems communicating with their families, friends, and physicians are more at risk of developing anxiety. Anxiety disorders can develop during cancer treatment include, if one has history of anxiety disorders, severe pain, anxiety at time of diagnosis, functional limitations, lack of social support, advancing disease and history of trauma (Stark D, 2002).

Anxiety in cancer patients arise from the fear of the future and fright of changes in one's self-concept and body image (Summers, 1998). Cancer related issues such as premature confrontation with mortality, changes in physical appearance, increased dependence on family, disruptions of social life and school/employment because of treatment, and loss of reproductive capacity is distressing (Shama W, Lucchetta S, 2007). Anxiety may arise from fear of death, apprehension about treatment, fear of abandonment, social isolation and anticipation of losses (Bohnet, 1986). This also relates to the degree of anxiety to the fears of the patients' anticipated adversity and severity of treatment side effects (Derogatis & Wise, 1989).

2.2.2 Depression

Depression is one of the most common psychiatric conditions following cancer diagnosis and during cancer treatment. Prevalence estimates of the psychiatric diagnosis have ranged widely from about 10% to over 50%, with most estimates at 15% to 25% on cancer patients. It is believed to affect men and women with cancer equally, and gender-related differences in prevalence and severity have not been adequately evaluated (Derogatis L.R, 1983). Cancer patients, who have undergone surgery, may develop depression due to disfigured body (Bredin, 1999). Depression is also common in the terminal phase of cancer, especially in those with poorly controlled physical symptoms.

Wendy *et al* (2009) in U.S.A did a Study to determine if the prevalence of mental disorders and related factors increase as advanced cancer patients get closer to death found out that the prevalence rates of psychiatric diagnoses, (MDD, GAD, PD, and PTSD) among cancer patients is10.8%.

Depressed people show a self-depreciating explanatory style in which they accept more responsibility for bad outcome than good outcomes (Day, I.C, 1999). Depression can be due to inaccurate cognitions about the patient's condition. The cognition is marked by negative view of self and the future (Derogatis & Wise, 1989). The cognitive hypothesis of depression, according to Beck also includes certain characteristic schemas that become activated and which lead to cognitive distortions. They consist of negative conception of self-worth producing an imbalance of thought content that causes feelings such as guilt, sadness, loneliness and pessimism. A patient with cancer may blame herself of the illness or they may also think that the illness implies the end of life while they can still cope and live relatively well despite the cancer (Gonca, S and Savasir, I, 2001).

2.3 End of life care

A prospective study of terminally ill Japanese patients who were assessed for psychiatric illness by structured clinical interview at the time of registration and again at admission to a palliative care unit (follow-up) found that 5 (42%) of the 12 patients diagnosed with adjustment disorder at admission progressed to major depression at follow-up. The Hospital Anxiety and Depression Scale was significantly predictive of psychiatric diagnoses at follow-up. (Akechi T, 2004)

Some studies suggest an association between maladaptive coping styles with higher levels of depression, anxiety, and fatigue symptoms. Examples of maladaptive coping behaviours include avoidant or negative coping, negative self-coping statements, preoccupation with physical symptoms, and catastrophizing (Reddick B.K, 2005). A study conducted in a group of 86 mostly late-stage cancer patients suggested that maladaptive coping styles and higher levels of depressive symptoms are potential predictors of the timing of disease progression. Another study examining coping strategies in women 138 with breast cancer found that patients with better coping skills such as positive self-statements have lower levels of depressive and anxiety symptoms. The study also found racial differences in the use of coping strategies, with African American women reporting and benefiting more from the use of religious coping strategies such as prayer and hopefulness than did Caucasian women. Preliminary data suggest a beneficial impact of spirituality on associated depression, as measured by the Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being (FACIT-Sp) and the Hamilton Depression Rating Scale (Edwards B, and Clarke V, 2004).

In a study of the Canadian National Palliative Care Survey, 381patients receiving palliative care for cancer were assessed for depressive and anxiety disorders and for the impact of these disorders on quality of life. The Primary Care Evaluation of Mental Disorders (PRIME-MD) was the assessment tool. (24.4%; 95%) were found to fulfil diagnostic criteria for at least one

depressive or anxiety disorder (20.7% prevalence for depressive disorder and 13.1% for anxiety disorder). Participants diagnosed with a disorder were significantly younger than the other participants and they had smaller social networks. They also reported more severe distress about physical symptoms, social concerns, and existential issues, suggesting significant negative impact on other aspects of their quality of life (Wilson K.G, 2007).

A study conducted in 211terminally ill cancer patients with life expectancies of less than 6 months underscored the importance of psychological issues. Using is a visual analogue scale, they evaluated patient "sense of burden to others" and its correlation with physical, psychological, and existential issues. The variables correlated with sense of burden to others included depression, hopelessness, level of fatigue, and current quality of life. No association between sense of burden to others and actual most highly degree of physical dependency was found, implying that this perception is mainly mediated through psychological distress and existential issues. A sub analysis of patient groups from different settings suggested that these findings were consistent across the inpatient and outpatient settings, with some minor variations (Chochinov H.M, 2007).

In a study done by Abdallah F and Musau, 2004 at Kenyatta National Hospital on The Psychological Effects of Cancer on female inpatients, study population of 66 patients were interviewed. Their ages ranged between 14 and 82 years with a median age of 43 years. Almost all (96%) the patients showed signs of mild-moderate depression. Those least affected by depression were over 36 years of age, a half of whom had ovarian cancer. The commonest age group was 41-50 years (23%).

In more advanced illness, focusing on despair, guilty thoughts, and a total lack of enjoyment of life is helpful in diagnosing depression. As shown by a study of adult cancer patients (n = 48) and their adult relatives (n = 99), family functioning is an important factor that impacts patient and family distress. Families that are able to act openly, express feelings directly, and solve

problems effectively has lower levels of depression, and direct communication of information within the family is associated with lower levels of anxiety (Edwards B, Clarke V, 2004). Relaxation and counselling interventions have been shown to reduce psychological symptoms in women with a new diagnosis of gynaecological cancer (Petersen RW, Quinlivan JA, 2002). The commitment to reduce the incidence of cancer and improve the quality of life of those who develop cancer in Kenya is very important. Kenya Medical Research Institute (KEMRI) has a department dedicated to non-communicable diseases, including cancer. The Kenyan government is in the process of developing National Cancer Control guidelines after passing in parliament of the cancer bill. We are hopeful that these will lead to the development of policies that address cancer as an entity in the health budget and enable many patients to afford cancer management services as early as possible. The implementation of the relevant policies on cancer control, prevention, and training is important in the management of the disease.

2.4 Review of Instruments.

There are various instruments used to measure the psychosocial aspects in patients. One of them is the Hospital Anxiety and Depression Scale (HADS). It is a simple yet reliable tool for use in medical practice. HADS is one of the most widely used in palliative care. (Zigmond and Snaith, 1983).

The Impact Thermometer used in combination with the Distress Thermometer is another of the instruments and has improved specificity for the detection of adjustment disorders and major depression, as compared with use of the Distress Thermometer alone. The tool has a screening performance comparable to that of the Hospital Anxiety and Depression Scale and it is brief, potentially making it an effective tool for routine screening in oncology settings in palliative care (Zigmond and Snaith, 1983).

Chochinov developed the single-question item, “Are you depressed?” An alternative of that is “Have you had depressed mood most of the day, nearly every day for two or more weeks?” The results were compared with assessment using the validated Mini International Neuropsychiatric Interview (MINI). Sensitivity of the single question was 0.8 and specificity was 0.85. The positive predictive value was 0.57 and the negative predictive value was 0.94.

The screening question was shown to have acceptable sensitivity and specificity in a small sample of community palliative care patients. It is likely to be most useful to accurately identify those who are not depressed and identify those patients who need a more in-depth assessment of their mood. (Chochinov H.M, 1997).

The Mini International Neuropsychiatric Interview (M.I.N.I) was designed as a brief structured interview for Major Axis-I psychiatric disorders in Diagnostic statistical Manual-IV (DSM-IV) and ICD-10. Validation and reliability studies have been done comparing the M.I.N.I to SCID-P and CIDI. The M.I.N.I has acceptably high validation and reliability scores and it can be administered in a shorter period of time approximately 15 minutes than the above referred instruments. The authors of the M.I.N.I. are David V. Sheehan, M.D., M.B.A., Professor of Psychiatry and Director of Psychiatric Research, University of South Florida College of Medicine, and Yves Lecrubier, M.D. L'Hôpital de la Salpêtrière (National Institute for Health and Medical Research) in Paris, France.

In Kenya, Khasakala *et al* (2013) used MINI in a study on suicidal behaviour among youths associated with psychopathology in both parents and youths attending outpatient psychiatric clinic in Kenya. This study concluded that youths with psychiatric and substance abuse disorders have mothers living with a depressive disorder. Also, perceived maternal rejecting parenting behaviour contributes significantly to the development of suicidal behaviour later in adolescent years

Khasakhala L. I *et all.,* (2013) used MINI in another study on Major depressive disorder in a Kenyan youth sample: relationship with parenting behaviour and parental psychiatric disorders. The study concluded negative maternal parenting behaviour and maternal depressive disorder are associated with major depressive disorder in children.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Research design

This study was a Cross-Sectional Descriptive Study among adult cancer patient attending oncology clinic at Moi Teaching and Referral Hospital (MTRH).

3.2 Study site and setting

MTRH in Eldoret is the second National and referral Hospital in the Kenya. It is a teaching and Referral hospital dealing with all sorts of range of medical conditions. The hospital serves patients from Western Kenya, North rift and South rift regions. The hospital provides both inpatient and outpatient services. It handles all emergencies in the accident and emergency unit and has all specialities. These include medical, surgical, gynaecological, psychiatric, paediatrics services among others. The inpatient has a bed capacity of approximately 800 patients.

The study was carried out among cancer patients who are attending the oncology clinic in MTRH. The Hospital in collaboration with Moi University and AMPATH formed AMPATH Oncology Institute (AOI) that has an Oncology Centre at the AMPATH Complex within MTRH. The AMPATH Oncology institute has collaboration with North American partners and Pfizer Oncology that runs the Oncology Clinic (fund treatment). The choice of MTRH as the study area was to the advantage since the oncology clinic runs between 8.00am and 2.00pm from Monday to Friday at the hospital, both new and old cancer patient are seen. All types of cancers patients both paediatrics and adult (gynaecological, surgical and medical) patients are attended to in the clinic.

3.3 Study population

Participant for the study were obtained from adult patients attending the oncology clinic at MTRH who meet the criteria for inclusion. The total number of patients with cancer seen per week in the oncology clinic is estimated to range from 100-150 patients in a week. This translates to 400-600 patients in a month. Every fourth patient who met the criteria for inclusion and agreed to sign the consent was selected for the study.

3.4 Sample size determination

Sample size determination was based on the average attendance at the clinic per month as per Kothari,2004 as below;

$n=z^2pq/e^2$

e= Margin of error set as 0.05

z= the standard normal deviation at the required confidence level = 1.96

p= proportion in the target population estimated to have anxiety and depression.

q= 1-p

p is hypothesized prevalence rates of psychiatric diagnoses, MDD, GAD, PD, and PTSD from other prevalence studies is 10.8% for cancer population. (Wendy G. L *et al*, 2009).

Take p=0.1, q= 0.9

Then $n = \frac{1.96^2 \times 0.1 \times 0.9}{0.05^2} = 138$

n=138 Therefore the sample size of 138 patients was studied.

3.5 Sampling procedure

At Moi Teaching and Referral Hospital, cancer patient are seen at the oncology clinic between Monday and Friday. The head of the clinic was given an explanation of the procedures, objectives and ethical issues in order to assure them that the interest of the patients is taken care of. Daily registration and triage of patients is done. Patients were introduced to the researcher by a nurse; the researcher took over and introduced herself to the patient and checked if the patient's met the inclusion criteria. The patient's who met the inclusion criteria were then given the consent seeking information. Those who agreed to consent and signed the consent form were interviewed with questionnaire and the instrument. Purposive sampling technique (Maxwell, 1997) was used to select the patients. Purposive sampling technique was used to select certain cases based on a specific purpose (Tashakkori & Teddlie, 2003). Participants were deliberately selected for the important information they could provide that cannot be gotten as well from other sources. The researcher assessed both new and old adult patients attending the oncology clinic who met the criteria for recruitment. At the end of the interview the researcher thanked the patient; identified those who needed help and referred them to the counseling team and the department of oncology for further management.

3.6 Instruments for the study

Data for the study were obtained from a sample of N = 138 patients from the oncology clinic of Moi Teaching and Referral Hospital. The study instruments were researcher designed socio-demographic questionnaire to collect data on their socio-demographic that is information on age, gender, marital status, occupational status, residence and religion and clinical questionnaire used to collect data on their clinical characteristics which extracted specific information from patient's files. Other clinical questions were answered on interview contact with the client.

Based on responses to the structured diagnostic interview M.I.N.I. Plus (Sheehan et al., 2009), study participants were classified for the presence based on DSM-IV TR criteria (American Psychiatric Association, 2000). Mini International Neuropsychiatric Interview for Adults (M.I.N.I Plus) was used to generate DSM-IV and ICD-10 diagnoses. With an administration time of approximately 15 minutes, it was designed to meet the need for a short but accurate structured psychiatric interview for multi-center clinical trials and epidemiology studies. This instrument has been validated and used in several studies. It can be used by clinicians, after a brief training session. The researcher has been trained on how to use the tool. Permission to use the M.I.N.I tool has been obtained from the developers of the tool in Paris. The Swahili version of the M.I.N.I tool used protocol for the translation being followed.

Inclusion criteria

- All patients diagnosed with cancer 18 years and above.
- Patients with cancer who are attending the oncology clinic at MTRH.
- Patients with Cancer who have given an informed consent.

Exclusion criteria

- Children 18 years and below who were diagnosed with cancer and were attending oncology clinic at MTRH.
- Patients who had not been diagnosed with cancer.
- Patient who were unwilling to give an informed consent to participation in the study.
- Patients who were too sick and unable to participate.

Those who met inclusion criteria to participate in the study received an explained about the study and informed consent form was signed. The study instrument was administered and

instead of using patient's names study numbers were used. At the end of the interview patients were be thanked and interview terminated.

3.7 Data processing and analysis

Data was collected by interview. The researcher administered the questionnaire and the instrument to patients who met the inclusion criteria. There was double entry of data followed by cleaning and sorting out after interview. To analyze the data descriptive statistical methods was employed. Analysis was done using statistical package for social scientists (SPSS) version 16 to describe each DSM-IV diagnosis of each participant by summing up the 'yes' to responses that met each criterion for DSM-IV disorder. Presentation of results is through descriptive statistics, graphs, tables, pie chart as appropriate.

3.8 Ethical consideration

Ethics issues

Proposal was developed and approval sought from supervisors, department of Psychiatry University of Nairobi (U.o.N) and Institutional Research and Ethics Committee (IREC) Moi Teaching and Referral Hospital/ Moi University Ethics and Research Committee Kenyatta National Hospital/ U.o.N before conducting study. Informed Consent was sought from patients who met the inclusion criteria before being included in the study.

Informed consent

Informed consent to the cancer patients who met the inclusion criteria was signed before data collection. Consent explanation to the patients on what participation entail, Voluntarism, potential risks and benefits, the participant's ability to withdraw from the study at any time without negative repercussions as addressed in the consent documents was put in place. Full

detail explanation of the study to the potential participant was read in a language conversant to them. The potential participants were explained to that no invasive procedure was to be used.

The respondents had the obligation to ask questions and obtained clarification on aspects not clearly comprehended. A witnessed signature thumb print or X mark from the participants was reacquired for study enrollment.

Confidentiality

To ensure confidentiality the study used numbers instead of names. All local databases were secured with password protected access systems. Access to data was limited to the researcher and supervisors only. Forms and lists that link participants Identity numbers to other identifying information was put in a separate locked file in an area with limited access.

The patients were informed that those who do not wish to participate in the study had a right to do so and they were not discriminated nor denied any benefits. Once consent is obtained the participants were interviewed.

CHAPTER FOUR: RESULTS

4.1.0: SOCIO-DEMOGRAPHIC AND CLINICAL RESULTS

(a) SOCIO-DEMOGRAPHIC RESULTS

4.1.1 Age and gender

A total number of 138 respondents were recruited in the study. Majority of the respondents were females at 71.7% (99) compared to males who were 28.3% (39) as shown in figure 1. Age range for the respondents was 18 to 88 years as shown in figure 2. Majority of the respondents fell between ages 41 – 48 years having 25.4% (35) followed by ages 49 – 56 years at 18.1% (25)

and 33 – 40 year with 57 – 64 years tied at 16.7% (23) each. Only 1 respondent 0.7% was in the ages between 73 – 80 years.

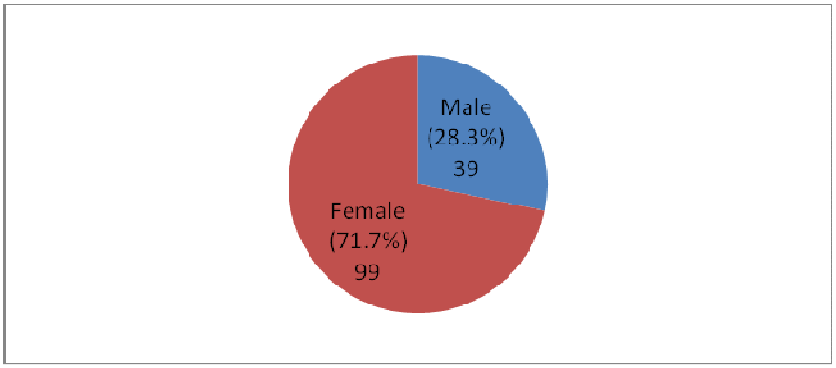


Figure 1: Gender of the Respondents

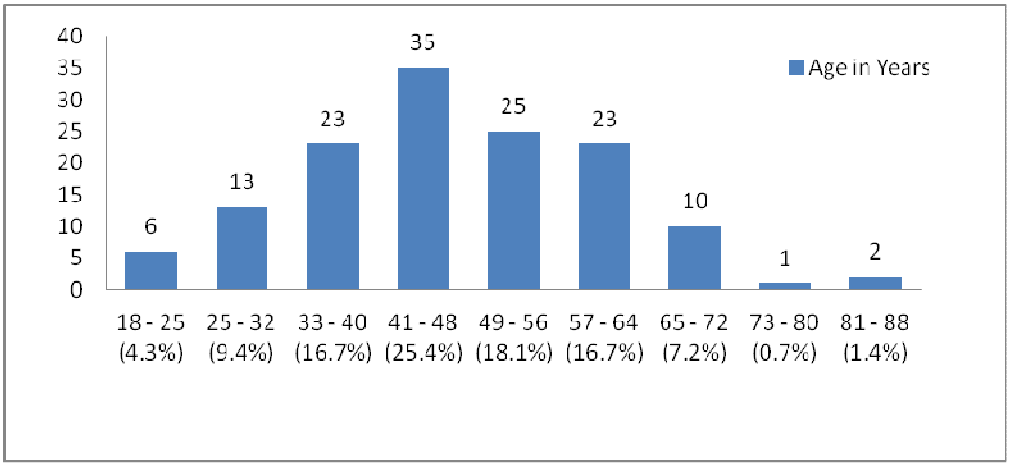


Figure 2: Age of the respondents

4.1.2: Religion

The highest number of study participants were Christians mainly the Protestants 65.9% (91) followed by Catholic at 30.5% (42). Only one participant was a Muslim at 0.7%. Others denominations had 2.9 % (4) as shown in table 1.

Religion		Frequency	Percent
	Protestant	9	65.
	Catholic	4	30.
	Muslim		0.
	Others		2.
	Total	13	100.

Table 1: Religion of the respondents

4.1.3: Residence by county

Table 2 shows that majority of the respondents were from Uasin Gishu county 25.3% (35) followed by Bungoma and Nandi county at 17.3% (24) and 8.5% (12) respectively. Respondents from other counties are clearly indicated in figure 3.There was only 1 respondent each at 0.7% from Migori and Narok County.

Table 2: Residence of the Respondents by County

Residence by county		Frequency	Percent
	Uasin Gishu	35	25.3
	Bungoma	24	17.3
	Nandi	12	8.5
	Kakamega	2	1.4
	Trans Nzoia	5	3.5
	Elgeyo Marakwet	9	6.5
	Baringo	3	2.2
	Busia	5	3.5
	Migori	1	0.7
	Nakuru	8	5.8
	Siaya	9	6.5
	Vihiga	2	1.4
	Kisii	6	4.2
	Bomet	3	2.2
	Kisumu	5	3.6
	Pokot	4	2.9
	Nairobi	4	2.9
	Narok	1	.7
Total		138	100.0

4.1.4: Marital status and people currently living with the respondents

More than a half of the respondents 66.5% (92) were married. 15.9% (22) were widowed, single were 12.3% (17), separated were 3.6% (5) and only 1.4% (2) of the respondents reported to have divorced as shown in table 3. Table 4 shows that most of the respondents currently live with their spouses and it accounts for 66.7% (92). 22.5% (31) live with their children. Some 10.1% (14) live with their parents. Those who live with other people and others relatives account for 0.7% (1) each.

Marital status	Frequency	Percent
Single	17	12.3
Married	92	66.7
Separated	5	3.6
Divorced	2	1.4
Widow/widower	22	15.9
Total	138	100.0

Table 3: Marital Status of the respondents

People living with respondents currently	Frequency	Percent
Spouse	92	66.7
Parents	14	10.1
Children	31	22.5
relatives	1	.7
Others	1	.7
Total	138	100.0

Table 4: People currently living with the respondents

4.1.5: Level of education

Table 5 shows that most of the respondents had formal education. Respondents with primary education were 35.6% (49); secondary level of education at 33.3% (46); college level at 21.7% (30) and 6.5% (9) respondents had university level of education. A few respondents 2.9% (4) did not have formal education. This explains how most respondents had the knowledge of what they were being treated for.

Table 5: Highest Level of Education

Education level	Frequency	Percent
Non formal education	4	2.9
Primary	49	35.6
Secondary	46	33.3
College	30	21.7
University	9	6.5
Total	138	100.0

4.1.6: Monthly incomes of the respondents

Table 6 show most of the respondents earn between kshs.3000/= and 10,000/= which accounts for 39.1% (54). This was followed by the ones who earn below Kshs. 3000/= at 34.1% (47). A paltry 8.7% (12) earned between Ksh. 10,000/=and 20,000/=. The final group whose income was above kshs 20,000 accounted for 19.4% (25). Majority of the respondents when put together earn an income of less than 10,000.

Monthly income in Ksh.	Frequency	Percent
< 3000	47	34.1
3001- 10,000	54	39.1
10,000- 20,000	12	8.7
>20,000	25	18.4
Total	138	100.0

Table 6: Monthly income in Kenya shillings

(b) CLINICAL RESULTS

4.1.7: Cancer site

Majority of the respondents had breast cancer 34.8% (48) as shown in figure 3. This was followed by cancer of the cervix at 12.3 % (17). Cancer of head and neck accounted for 9.5% (13); musculoskeletal cancer was at 8.7% (12) then uterine cancer at 7.2% (10). 5.8% (8) had hepatobilliary cancer; colorectal cancer accounted for 5.1% (7). Cancer of the ovary was 4.3% (6); urinary cancer accounted for 2.9% (4). Blood, abdomen and skin cancer each had equal number respondents at 2.2% (3) whereas cancer of the lungs and oesophagus had 1 respondent each at 0.7%. Respondents with gynaecological cancer that is cancer of the cervix, uterus and

ovary together with breast cancer respondents account for 58.7% (81). This concurs with the results that showed majority of the respondents being females.

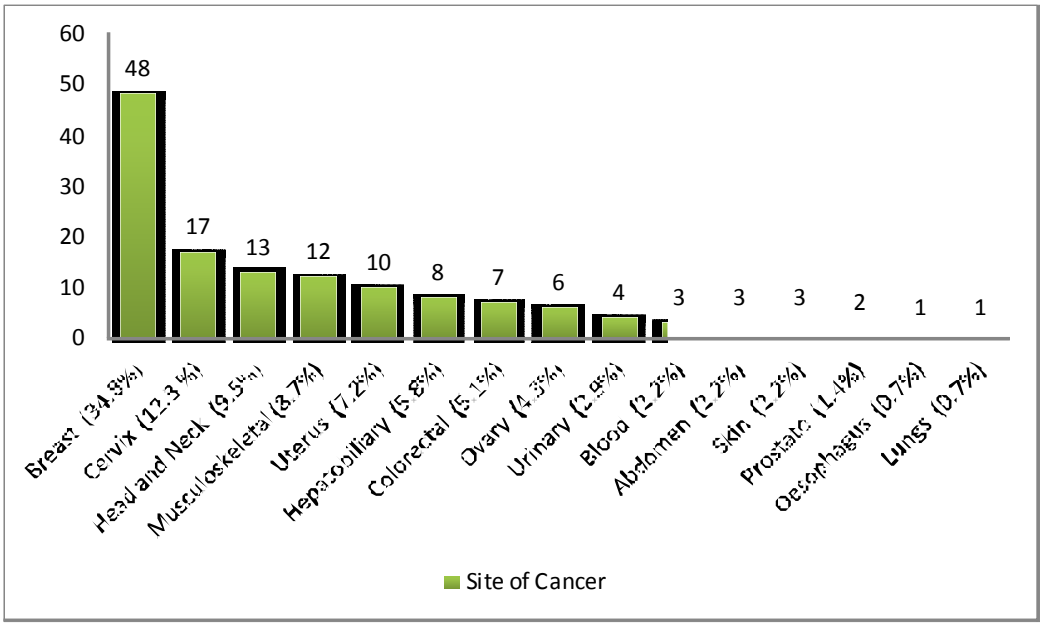


Figure 3: cancer Site

4.1.8 Stage of cancer

As shown in table 7, 39.1% (54) respondents were at stage IV Stage III cancer accounted for 33.3% (46); stage II were 18.8% (26) and stage I were 5.8% (8). Stage zero had no respondent. Most respondents were diagnosed late with a total of 91.2% of respondents having been between stages II - IV. The ones with no staging included respondents with cancer of blood or bone marrow like leukaemia, multiple myeloma and choriocarcinoma which do not have a clear-cut staging system. They had (4) respondents at 2.9%.

Cancer stage of the respondents	Frequency	Percent
Stage I	8	5.8
Stage II	26	18.8
Stage III	46	33.3
Stage IV	54	39.1
No staging	4	2.9
Total	138	100.0

Table 7: Stage of the Cancer

4.1.9: Treatment modality

A total of 215 different treatment types were received by the 138 respondents. Table 8 shows majority of the respondents were on chemotherapy treatment 57.2% (123) followed by palliative care at 20.9% (45). 18.1% (39) respondents had undergone surgery. Only 3.7% (8) reported to have received radiotherapy treatment. This concurs with the report that most respondents were diagnosed late and are between stage II and IV hence on chemotherapy.

Clinical treatments for the Cancer patient		**Responses**	
		N	Percent
	Chemotherapy	123	57.2%
	Surgery	39	18.1%
	Radiotherapy	8	3.7%
	Palliative care	45	20.9%
Total		215	100.0%

Table 8: Type of treatment received

4.1.10: Referral for Psychosocial support

In table 9, 92.1% (127) of the respondents had not been referred for psychological or social care. 7.9% (11) reported to have discussed the psychological and social concern with the care givers.

Referred for psychosocial support		Frequency	Percent
	Yes	11	7.9
	No	127	92.1
Total		138	100.0

Table 9: Referral for Psychosocial support

4.1.11: Information on the disease

Most patients had information about their disease 98.6 % (136). Only 1.4 % (2) was not aware of the diagnosis of cancer. This is shown in table 10.

Knowledge of cancer diagnosis		Frequency	Percent
	Yes	136	98.6
	No	2	1.4
Total		138	100.0

Table 10: Awareness about cancer diagnosis by the respondents

4.1.12 Time elapsed (in months) since the patient knew the cancer diagnosis

Majority of the patients knew their cancer diagnosis between 1 and 6 months with 68% (94) followed by 7 – 12 months at 15% (20). Those who knew their diagnosis in less than 1 month

was 9% (13) and the least number the respondent knew their diagnosis above 12 months. This is shown in figure 11.

How long they knew disease suffered from		Frequency	Percent
	<1	13	9.4
	1-6	94	68.1
	7-12	20	14.6
	>12	11	7.9
Total		138	100.0

Table 11: Time elapsed (in months) since the patient knew the cancer

4.1.13: The person who informed the patient of the cancer

Majority of the respondents were informed of the diagnosis by the doctor 88.4% (122) followed by nurses 5.1% (7) then by relatives 2.9% (4) and others 3.6% (5). The group of others included patient having suspected she/he has cancer or being told by a friend or other people other than the ones mentioned above. This is shown in table 12.

Table 12: person who informed the patient of the cancer

Person who informed the patient of the cancer		Frequency	Percent
	Nurse	7	5.1
	Doctor	122	88.4
	Relative	4	2.9
	Others	5	3.6
Total		138	100.0

4.1.14: Whether the patient was accompanied to the hospital by someone

Majority of the patient were accompanied to the hospital by a relative 91.3% (126); 8.7% (12) of the respondents had not been accompanied by someone to the hospital during the diagnosis of cancer. This is shown in table 13.

Accompanied at the time of diagnosis	Frequency	Percent
Yes	126	91.3
No	12	8.7
Total	138	100.0

Table 13: Patient accompanied to the hospital during the cancer diagnosis

4.1.15: Whether any one has discussed their thoughts on cancer.

The number of respondents who had not discussed their thoughts about cancer diagnosis with anyone were 102 (73.9%) as compared to 26.1% (36) who had discussed their thought on cancer diagnosis by a health care provider, friends, relatives or pastors as shown in table 14.

Discussed their thought of illness	Frequency	Percent
Yes	36	26.1
No	102	73.9
Total	138	100.0

Table 14: Whether any one has discussed with the respondent their thought on cancer

4.1.16: Psychosocial problem before cancer diagnosis

The respondents had no psychosocial problems prior to diagnosis of the cancer were 62.3% (86). Some 37.7% (52) reported to have other social and psychological problems prior to cancer diagnosis, among which was poor relationship with their spouse at home. See table 15.

Psychosocial problem before cancer diagnosis	Frequency	Percent
Yes	52	37.7
No	86	62.3
Total	138	100.0

Table 15: Psychosocial problem before cancer diagnosis

4.2.0 The Mini International Neuropsychiatric Interview (M.I.N.I) Plus.

4.2.1: Major Depressive Episodes

As shown in table 16; 42% (58) of patients met the criteria of major depressive episode current and 58% (80) did not. 15.9% (22) had Major depressive episode past whereas 84.1% (116) did not have and 21.7% (30) of the patient had Major Depressive Episode with Melancholic features whereas 108 (78.3) did not have.

Table 16: Major depressive episodes

	Yes	**No**
Major Depressive Episode Current	**58 (42%)**	**80 (58%)**
Major Depressive Episode past	**22 (15.9%)**	**116 (84.1%)**
Major depressive episode with melancholic features	**30 (21.7%)**	**108 (78.3%)**

4.2.2: Dysthymia current

Table 17 shows majority of the respondents 85.5% (118) did not have dysthimia current with only 14.5% (20) having met the criteria of dysthymia.

Dysthymia		Frequency	Percent
	Yes	20	14.5
	No	118	85.5
Total		138	100.0

Table 17: dysthymia current

4.2.3: Suicide risk current

The respondents who had no risk of suicide that is current were 87% (120). Those who had current suicide risk were 13% (18), among them 2% (3) had high risk suicide current 2.9% (4) had moderate and 8% (11) had low risk of suicide that is current. See table 18.

Suicide risk current		Frequency	Percent
	Low	11	8.0
	Moderate	4	2.9
	High	3	2.1
	N/A	120	87.0
Total		138	100.0

Table 18: Suicide risk current

4.2.4: (Hypo) Manic Episodes

Respondents who had hypo manic episodes were only 7 at 5.1% and those who did not have were 94.9% (131). Manic episodes 7.2% (10) respectively the ones without were 92.8% (128). See table 19.

(Hypo) Manic Episodes	Yes	No
Hypomanic Episode	7 (5.1%)	131 (94.9%)
Manic Episodes	10 (7.2%)	128 (92.8%)

Table 19: (Hypo) Manic Episodes

4.2.5: Panic disorder /Agoraphobia

Respondents with Panic Disorder without Agoraphobia Current were 2.2% (3) and those without were 97.2% (135). Respondents with Panic Disorder with Agoraphobia current were 6.5% (9) and those without were 93.5% (129). Respondents with Agoraphobia without history of panic disorder 8.7% (12) and 91.3% (126) did not have it. See table 20.

Table 20: Panic disorders/ Agoraphobia

PANIC DISORDER/ AGORAPHOBIA	**Yes**	**No**
Panic Disorder without Agoraphobia Current	3 (2.2%)	135 (97.2%)
Panic Disorder with Agoraphobia current	9 (6.5%)	129 (93.5%)
Agoraphobia without history of panic disorder	12 (8.7%)	126 (91.3%)

4.2.6: Post Traumatic Stress Disorder

Table 21 shows 13% (18) of the respondents suffered from Post Traumatic Stress Disorder and 87% (120) did not have it.

Post traumatic stress disorder		Frequency	Percent
	Yes	18	13.0
	No	120	87.0
Total		138	100.0

Table 21: Post Traumatic Stress Disorder

4.2.7: Psychotic disorders

As shown in table 22, 99.3% (137) of the respondents did not have both Psychotic syndrome current and psychotic syndrome lifetime only 0.7% (1) respondent had it in each case. 1.4% (2) respondents had mood disorder with psychotic features and majority of them did not have it 98.6% (136).

	Yes	**No**
Psychotic syndrome current	**1(0.7%)**	**137 (99.3%)**
Psychotic Syndrome Lifetime	**1 (0.7%)**	**137 (99.3%)**
Mood disorders with psychotic features	**2 (1.4%)**	**136 (98.6%)**

Table 22 Psychotic Syndrome

4.3.0 Social issues

4.3.1: Social Phobia current

Respondents who had social phobia that is current were 7.2% (10) of the cases. Those who did not have it were 92.8% (128). This is shown in table 23.

Social Phobia current		Frequency	Percent
	Yes	10	7.2
	No	128	92.8
Total		138	100.0

Table 23: Social Phobia current

4.3.2: Obsessive compulsive disorder (Current)

Table 24 shows that 4.3% (6) of the respondents had Obsessive Compulsive Disorder current whereas 95.7% (132) did not have it.

Obsessive compulsive disorder (current)		Frequency	Percent
	Yes	6	4.3
	No	132	95.7
Total		138	100.0

Table 24: Obsessive Compulsive Disorder Current

4.3.3: Alcohol / Drug Dependence/ Abuse (current)

Table 25 shows that 2.2% (3) of the respondents had alcohol dependency current and 97.8% (135) did not have it 0.7% (1) respondent had alcohol abuse current at and 99.3% (137) did not have it. Neither of the respondents reported to have drug dependency nor drug abuse current.

Current	Yes	No
Alcohol Dependence Current	3 (2.2%)	135 (97.8%)
Alcohol abuse current	1 (0.7%)	137 (99.3%)
Drug(s) dependence current	0 (0.0%)	138 (100%)
Drug(s) Abuse Current	0 (0.0%)	138 (100%)

Table 25: Alcohol/ drug dependency and abuse

4.3.4: Current generalised anxiety disorder

There were only 12.3% (17) of the respondents who suffered from generalised anxiety that is current. 87.7% (121) of the respondents did not suffer from the disorder. This is shown in table 26.

Current generalised anxiety disorder		Frequency	Percent
	Yes	17	12.3
	No	121	87.7
Total		138	100.0

Table 26: Current Generalized Anxiety Disorder

4.3.5: Antisocial personality disorders life time

As shown in table 27, most of the respondents 98.6% (136) had never had antisocial personality disorder during their life time. Only 1.4% (2) had the disorder during their life time.

Antisocial personality disorders life time		Frequency	Percent
	Yes	2	1.4
	No	136	98.6
Total		138	100.0

Table 27: Antisocial personality disorders life time

4.3.6 Eating disorders

Patients who had weight lower than the threshold were (4) 2.9%. The participants with weight above the thresh hold were 79.7% 110. 17.4% (24) were missing in the system. None of the respondents suffered from eating disorders. All 100% (138) had no Anorexia nervosa current, Bulimia Nervosa current and Anorexia nervosa binge. Some had low weight but did not try not to gain weight.

5.0 CHAPTER FIVE

5.1 DISCUSSION

Socio-demographic characteristics

The study had a total of 138 respondents. There were more females than males. This could be due to the type of cancer commonly seen at the Oncology clinic at MTRH, Eldoret. Breast cancer takes the lead followed by cervical cancer. In Africa breast and cervical cancer has been reported to have had the highest incidence rate (Timothy R. R, 2011). This finding compares favourably with worldwide estimated incidence of cancer as reported by the International Agency for Research on Cancer (IARC) where breast cancer takes the lead (GLOBOCAN 2012). Breast cancer is the most common cause of cancer death among women and the most frequently diagnosed cancer among women in 140 of 184 countries worldwide. It now represents one in four of all cancers in women (GLOBOCAN, IARC, 2012).

Cancer is primarily a disease of older people, with incidence rates increasing with age for most cancers (http://www.cancerresearchuk.org). More than 36% of cancers in the United Kingdom (UK) in 2009-2011 were diagnosed in people aged 75 and over (UK office national statistics). Even though age-specific incidence rates for all cancers combined generally increase with age in both Africa and the economically developed world, rates are generally lower in Africa (Curado MP *et al,* 2007). The incidence rates are higher in the United States than in Uganda except in the 30- to 40-year age groups in which rates are slightly higher in Uganda. The elevated rates for ages 30-40 may reflect the early onset of cervical cancer in women and liver cancer and Kaposi sarcoma in men (Parkin, D. M *et all.,* 1999). This may explain why in this study at MTRH the highest age range was between 41 to 48 years followed by ages between 49 to 56 years.

The highest number participants were Christians (96.4%) this indicates the population in the region were mostly Christians. There were more respondents from Uasin Gishu county 25.3% (35) where the hospital is situated. This may be due to easy access of the residents in the area. Others respondents came from many parts of the country in order to access services that are offered in the Hospital. This is because MTRH is a referral hospital with a wide range of services offered in the facility and it is known in this region.

More than a half of the respondents 66.5% were married. This compares well with what Ndetei *et all* 2011 while looking at the psychological and social profiles of cancer patients at kenyatta national hospital (KNH) found out that 62.5% of the cancer respondents were married. Most of the respondents were living with their spouses and it accounts for 66.7%.

Most cancer respondents had gone to school with greater percentage 97.1% having attained formal education. A few respondents 2.9% did not have formal education. They had the knowledge of their disease 98.6 % with only 1.4 % not aware of the diagnosis of cancer.

Breast cancer 34.8% and cancer of the cervix at 12.3 % formed most of the cancer seen among the respondents. This correlates well with the fact that most of the respondents were female. This finding is not different from the general trend in the country where breast and cervical cancer are the commonest cancers in the country (Nairobi cancer registry, 2006). It has also been noted that cancers of the breast and cervix represent a large proportion (43.3%) of all reported cancers in female (Mutuma GZ, Korrir AR, 2000-2003). According to Eldoret cancer registry, cancer of the cervix is the most common among females followed by breast and oesophagus. In males cancer of the oesophagus is the commonest and it is followed by cancer of the skin, Non Hodgkin Lymphoma and prostate cancer respectively (Tenge CN *et al*, 2009).

Nuhu, F.T *et all.*, (2009) in Ibadan, Nigeria in his study on Psychological and physical effects of pain on cancer patients found out that breast cancer was 32.4% and cancer of the cervix was

28.1% were the commonest cancer. Ferlay *et al.*, (2010) found out that breast cancer was the most frequently diagnosed cancer among females, accounting for 23% of the total cancer cases.

GLOBOCAN 2012, in the most recent estimates for 28 types of cancer in 184 countries worldwide and reveals striking patterns of cancer in women. An estimated 14.1 million new cancer cases and 8.2 million cancer-related deaths occurred in 2012, compared with 12.7 million and 7.6 million, respectively, in 2008 (Ferlay J, *et al.*, GLOBOCAN 2012).

Respondents who had stage IV cancer were 39.1%. Those with Stage III cancer accounted for 33.3% stage II had 18.8% respondents and stage I were 5.8%. Stage zero had no respondent. The ones without staging included respondents with leukaemia, multiple myeloma and choriocarcinoma which do not have a clear-cut staging system accounting for 2.9% of the respondents. Therefore most of the cancer patients were diagnosed late with a total of 91.2% of respondents having been between stages II – IV. In Malaysia, Hisham and Yip, 2004 reported that over 95% of cancer patients in the African countries are diagnosed at the late- or end-stage disease. The delay in presentation of breast cancer was attributed to a strong belief in traditional medicine, the negative perception of the disease, poverty and poor education, coupled with fear and denial. Loehrer PJ Sr, *et al.* 1991 also mentioned that delay in presentation may be due to the low level of cancer awareness between the population and the health workers, cultural practices and limited access to specialized care which are usually non-existent in these countries. None of these features were captured in this research but more research if done in this area will capture these features.

Most of the respondents were on chemotherapy treatment 57.2%; 20.9 were on palliative care 18.1% undergone surgery only 3.7% reported to have received radiotherapy treatment. This could be attributed to lack of radiotherapy services at the hospital and in the countries public hospitals. KNH is the only public hospital in the country that provides radiotherapy service. This may also explain challenges that they undergo when seeking to obtain the same service at

the KNH. Others are in private hospitals which may not be easy for the low income patient to access. Most of these patients earn an income of between 3000 and 10,000 per month.

Majority 92.1% (127) reported that they had not been referred for psychological or social care. Only 7.9% (11) reported to have discussed the psychological and social concern with the care givers. The study shows that there is little psychosocial care being given to cancer patient. This situation is different from a study by Sharp D. M *et all*, 2009 in the UK on demographic characteristics of patients using a fully integrated psychosocial support service for cancer patients and found out that the Oncology health service, Kingston Upon Hull, UK, delivers fully integrated psychosocial support and interventions. The fully integrated Oncology Health Service in Hull was accessed by a more diverse range of patients. Among the findings fifty-six percent of patients accessing the service were female and the mean age of the patients was 61 years. Twenty-two percent had breast cancer, 21% had colorectal cancer, 16% had lung cancer, and 8% had prostate cancer. The remaining 33% had a range of cancer diagnoses.

Major Depressive Episodes

42% of the participants met the criteria for Current Major depressive episode. 15.9% had Major depressive episode past and 21.7% of the patient had Major Depressive Episode with Melancholic features. Ndetei *et al* 2012 did a study on Psychological and social profile among cancer patients in Kenyatta National Hospital and found that there was a high prevalence of depression (44%) disorders among cancer patients. He also found out that 93% of cancer respondents who had stage 3 and 4 cancers had had severe depressive disorder which goes unrecognized, and thus untreated, by healthcare providers. This finding compares with the results at MTRH where 42% of the patient met the criteria of Major depressive episode with 92.1% treatment gap.

Swai, 2011 in a study on patients admitted at Ocean road Cancer institute in Dar es Salaam Tanzania, on psychiatric morbidity on cancer patients and found out depressive episodes was

28.0%. These results compares to study done by Derogatis LR *et al*, 1983 from three cancer centres that looked at the prevalence of psychiatric disorders and reported that 50% of patients will have a normal response to cancer in terms of day to day stress. The other 50% will present with adjustment disorders with depressed or anxious symptoms and among these 50%, 20% of patient will have major depressive episode.

In the UK Sharp D. M *et al*, (2009) found out that the Oncology health service, Kingston Upon Hull, cancer patients use a fully integrated psychosocial support service.

Dysthimia current (past 2 years)

14.5% of the respondents met the criteria for current dysthymia. Mehnert A and Koch U, 2007 did a study on Prevalence of acute and post-traumatic stress disorder and comorbid mental disorders in breast cancer patients using structured clinical interviews for DSM-IV (SCID) conducted post-surgery with 127 patients and found out 3.1% had dysthymic disorder. Mitchell AJ, *et al.* 2011 a meta-analysis of 94 studies found out that prevalence of dysthymia by DSM or ICD criteria was 2·7%. The findings at MTRH are higher than the results probably due to the different instruments used coupled with environmental factors.

Suicidality current past month

From this study majority (87%) of the respondents had no risk of suicide that is current but 13% of them had current suicide risk; among them 2% had high risk suicide current, 2.9% had moderate risk suicide and 8% had low risk of suicide that is current. Compared to study done on 131 patients admitted at Ocean road Cancer institute in Dar es Salaam Tanzania (Swai, 2011) found out that suicidality was 38.7%. The high percentage on suicidality could be attributed to the fact that the study was among inpatients who mostly had advanced /complicated cancer as compared to the outpatient who were more stable and able stay with their families hence obtain social support.

Panic disorders lifetime + current (past month) and (F) Agoraphobia

Respondents with Panic Disorder without Agoraphobia Current were 2.2% and those with Panic Disorder with Agoraphobia current were 6.5% and Respondents with Agoraphobia without history of panic disorder 8.7%. This finding agrees reasonably well with a meta-analysis of 94 studies Prevalence of anxiety among cancer patients to be 10·3%. (Mitchell AJ, *et al.* 2011) . Swai in Dar es Salaam found panic disorders (4.6 %).

Obsessive compulsive disorders (past month) current

4.3% of the respondents had Obsessive Compulsive Disorder current whereas 95.7% did not have it. This compares with a survey conducted in the early 1980s by the National Institute of Mental Health (NIMH) which showed that Obsessive Compulsive Disorder affects more than 2% of the cancer population.

Post traumatic stress disorders (past month) current

13% of the respondents suffered from Post Traumatic Stress Disorder and 87% did not have it. In Post-traumatic stress disorder (PTSD), Cancer patients try to avoid thoughts of the illness and studies have reported stress symptoms like avoidant behaviours, intrusive thoughts, and heightened arousal in cancer patients ranges from 3% to 4% in early-stage cancer patients recently diagnosed to 35% in patients evaluated after treatment (Solomon Z, 1987).

The physical and mental shock of having a life-threatening disease, of receiving treatment for cancer, and living with repeated threats to one's body and life are traumatic experiences for many cancer patients.

In this study most clients had advanced stages of cancer. It is important therefore that cancer survivors receive information about the possible psychological effects of their cancer experience and early treatment of symptoms of PTSD.

Generalized Anxiety Disorders current (past 3 months)

An anxiety disorder develops when the duration, frequency, number and intensity of anxiety symptoms are significant enough to interfere with ones quality of life and functioning.

In this study 12.3% of the respondents met the criteria of generalised anxiety that is current. This compares with study that demonstrated that anxiety that becomes persistent "more often than not," or is intrusive and uncontrollable is much less common in cancer, occurring in 10-30% of people diagnosed with cancer (Stark DP & House A, 2000).

Mitchell AJ, *et al,* 2011 published in Lancet Oncology, a meta-analysis of 94 interview-based studies by DSM or ICD criteria in oncological and haematological settings and found the prevalence of anxiety disorders was 10.3% among the cancer patients. This finding agrees reasonably well with my finding of 12.3% of anxiety disorders among the cancer respondents at MTRH, Eldoret.

The less frequent disorders were hypo manic episodes at 5.1%, manic episodes at 7.2%. Alcohol and drug dependency/ abuse, psychotic disorders, anorexia nervosa and bulimia nervosa each affecting less than 1% of the patients. Antisocial personality disorders accounted for only 1.4% amongst the cancer patients.

5.2 CONCLUSION

1. Breast cancer and cervical cancer are the commonest cancer seen at MTRH, Eldoret. This is the same pattern seen nationaly in Kenya.
2. Majority of the cancer patients seen at MTRH are at advanced stage (stage 2- stage 4.) the same picture is seen nationally in Kenya as opposed to western countries picture were patients are diagnosed in early stages.
3. Major Depressive Episode, Anxiety disorder ,Obsessive Compulsive Disorder , Posttraumatic Stress Disorder were the main psychiatric disorders found at MTRH, Eldoret. Others include antisocial personality ,social phobia, alcohol and drug dependency /abuse.
4. Psychosocial oncology services for patients and families were found to be minimal.

5.3 RECOMMENDATIONS

1. Education of communities on cancer issue will increase early screening and routine check up and help detect the disease in its early stage which may be eradicated before it is advanced and prevent progression of the illness hence better outcome.

2. In order to reduce the effects of cancer on the society it is important to control risk factors associated with cancer, early detection and offer good care to those affected.

3. All cancer patients should be screened for psychosocial issues early in the course of treatment and re-screening at critical points along the course of care.

4. Patients who show moderate to severe symptoms should be referred to appropriate care givers, such as a clinical psychologist, social worker, chaplain, or psychiatrist for further management.

5. Health care professionals need to perform psychological assessment and manage the patients alongside medical intervention because there are psychological and social

issues among cancer patients that go without being seen.

6. Psychosocial support services are an important component of modern cancer treatment. A major challenge for all psychosocial services is the achievement of access and utilization of the service. Emotional and social support can help cancer patients learn to cope with psychological and social issues. This can reduce levels of depression and anxiety, among patients and help cope with the illness.

7. Further research to look into psychological and social issues need to be done to improve quality of care, increase access to psychosocial care for all, fund psychosocial research and to support education and training of psychosocial oncology experts.

REFERENCE

1. Abdallah F. K, and Musau F. M. (2004) “The psychological responses of female cancer patients at a referral hospital in Kenya”. *MEDICOM* 19, 1: 5-12.

2. Ahmedin Jemal, Freddie Bray, Melissa M. Center , Jacques Ferlay , Elizabeth Ward , David Forman (2011). Global cancer statistics. *A Cancer Journal for Clinicians*. 61:2, pp 69–90

3. Akechi T., Okuyama T., Sugawara Y. (2004). Major depression, adjustment disorders, and post-traumatic stress disorder in terminally ill cancer patients: *associated and predictive factors*. J Clin Oncol 22 (10): 1957-65.

4. Aldwin, Carolyn (2007). *Stress, Coping, and Development, Second Edition*. New York: The Guilford Press.

5. American Psychiatric Association. (2000): Diagnostic and Statistical Manual of Mental Disorders: DSM-IV-TR. 4th rev. ed. Washington, DC: American Psychiatric Association,.

6. Anand P, Kunnumakara AB, Sundaram C, Harikumar KB, Tharakan ST, Lai OS, Sung B, Aggarwal BB (2008). "Cancer is a preventable disease that requires major lifestyle changes". *Pharm. Res.* 25 (9): 2097–116.

7. Areej El-Jawahri, MD, Joseph A. Greer, PhD, and Jennifer S. Temel, MD (2011**).** Does Palliative Care Improve Outcomes for Patients with Incurable Illness? A Review of the Evidence. *The Journal of Supportive Oncology*.Volume 9 Number 3.

8. Artherholt SB, Fann JR(2012). Psychosocial care in cancer. *Current Psychiatry Reports*;14(1):23-29

9. Besedovsky HO, Del Rey A, Sorkin E (1986). "Integration of Activated Immune Cell Products in Immune Endocrine Feedback Circuits". In Oppenheim JJ, Jacobs DM. *Leukocytes and Host Defense*. Progress in Leukocyte Biology **5**. New York: Alan R. Liss. p. 200.

10. Bjelland I, Dahl AA, Haug TT, Neckelmann D (2002). The validity of the Hospital Anxiety and Depression Scale; an updated review. *J Psychiat Res* 52:69-77

11. Bohnet, N.L(1986). Emotional Concerns. In M.O.Amentia and N.L.Bohnet (Eds). Nursing Care Of The Terminally Ill. Boston And Toronto: Little Brown And Company.

12. Bray F, Jemal A, Grey N, *et al*.(2012) Global cancer transitions according to the Human Development Index (2008-2030): a population-based study. *Lancet Oncol*; 13:790-801.
13. Cancer Incidence Report 2000 – 2002, 2006, Nairobi Cancer Registry, Kenya Medical Research Institute, Nairobi, Kenya. ??
14. Charmaz K. (2000) Experiencing chronic illness. In: Albrecht GL, Fitzpatrick R, Scrimshaw SC, editors. Handbook of social studies in health and medicine. Thousand Oaks, CA: Sage Publications.
15. Chuman, M.A. (1983). The neurological basis of sleep. *Heart and Lung*. 12: 177-182.
16. Chochinov HM, Kristjanson LJ, Hack TF, *et al* (2007): Burden to others and the terminally ill. *J Pain Symptom Manage.* 34 (5): 463-71.
17. Clinton-McHarg,T, Carey,M, Sanson-Fisher,R, Shakeshaft,A. Rainbird, K.(2010) Measuring the psychosocial health of adolescent and young adult (AYA) cancer survivors: a critical review. Health and Quality of Life Outcomes 8:25.
18. Cochran, W. G. (1963). *Sampling Techniques*, 2nd Ed., New York: John Wiley and Sons, Inc.
19. Corney, R., Everett, H., Howells, A, And Crowther, M. (1992). The care of patients undergoing surgery for gynecological cancer: the need for information, emotional support and counseling. *Journal of advanced nursing*, 17, 667-671.
20. Curado MP, Edwards BK, Shin HR, et al. (2007). *Cancer Incidence in Five Continents, Vol. IX*. Lyon: IARC; IARC Scientific Publications No. 160.
21. Day, I.C. (1999). Self-concept and relational concomitants of irritable bowel syndrome. Unpublished MA dissertation. Rand Afrikaans University.
22. Derogatis LR, Morrow GR, Fetting J, et al (1983): The prevalence of psychiatric disorders among cancer patients. *JAMA* 249 (6): 751-7.
23. Derogatis LR, and Wise T. M (1989). *Anxiety and Depressive disorders in medical patients*. Washington: American Psychiatric Press.
24. Duarte Enes SP. (2003) An exploration of dignity in palliative care. Palliative medicine; 17:263-269.
25. Edwards B, Clarke V. (2004) The psychological impact of a cancer diagnosis on families: the influence of family functioning and patients' illness characteristics on

depression and anxiety. *Psychooncology* 13 (8): 562-76.

26. Falagas, M.E, Zarkadoulia,A.A, Ioannidou,E.N, Peppas,G. Christodoulou,C. and Rafailidis,P.I (2007). The effect of psychosocial factors on breast cancer outcome: a systematic review *Breast Cancer Research*, 9:R44
27. Ferlay J, Shin HR, Bray F, (2010). Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. Int J Cancer; 127(12):2893-2917.
28. Ferlay J, Shin HR, Bray F, Forman D, Mathers CD, Parkin D. GLOBOCAN (2008), Cancer Incidence and Mortality Worldwide: IARC CancerBase No.10 [Internet]. Lyon, France: International Agency for Research on Cancer. 2010; Available from: http://globocan.iarc.fr.
29. Ferlay J, Soerjomataram I, Ervik M, et al.(2013) GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer. Available from: http://globocan.iarc.fr, accessed December 2013.
30. Fevre PL, Devereux J, Smith S, et al: (1999). Screening for psychiatric illness in the palliative care in patient setting: A comparison between the Hospital Anxiety and Depression Scale and the General Health Questionnaire-12. *Palliate Med* 13:399-407.
31. First MB, Spitzer RL, Gibbon M, Williamson JB. (1996). Structure Clinical Interview for DSM-IV Axis I Disorder Clinical Version. Washington DC: American Psychiatric Press.
32. Gonca, S., & Savasir, I. (2001). The relationship between interpersonal schemas and depressive symptomatology. *Journal of Counselling Psychology, 48*, 359-364.
33. Gram IT, Slenker SE(1992): Cancer anxiety and attitudes toward mammography among screening attenders, nonattenders, and women never invited. *Am J Public Health* 82 (2): 249-51.
34. Hackett TP, Cassem NH (1987). Massachusetts General Hospital Handbook of General Hospital Psychiatry. 2nd ed. Littleton, Mass: PSG.
35. Hanahan D, Weinberg RA (January 2000). "The Hallmarks of Cancer". *Cell* 100 (1): 57–70
36. Hegel MT, Collins ED, Kearing S, *et al*, (2008): Sensitivity and specificity of the

Distress Thermometer for depression in newly diagnosed breast cancer patients. *Psychooncology* 17 (6): 556-60.

37. Henriksson MM, Isometsa ET, Hietanen PS, *et al*, (1995): Mental disorders in cancer suicides. J Affect Dis 36:11-20.
38. Herrmann C, Buss U, Snaith R (1995). Hospital Anxiety and Depression Scale - Deutsche Version (HADS-D). Manual. Bern: Hans Huber; Herrmann C, Buss U, Snaith R: Hospital Anxiety and Depression Scale - Deutsche Version (HADS-D). Manual. Bern: Hans Huber; 1995.
39. Hisham, A.N, Yip, C.H (2004) Overview of Breast Cancer in Malaysian Women: A Problem with Late Diagnosis, Asian Journal of Surgery Volume 27, Issue no. 2, April, pp. 130-133.
40. Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of general psychology*, *6(4)*, 307-324.
41. http://www.who (2012). WHO Definition of Palliative Care". World Health Organization.
42. http://www.diplomateastafrica.com (04 July 2012) Kenyatta National Hospital The Cancer Burden Kenya Has To Bear.
43. *http://www.who.int/mediacentre/factsheets/fs297/en/index.html.* (2010). Fact sheet no. 207. Geneva, Switzerland*:* World Health Organization, Cancer.
44. http://www.medterms.com/script/main/art.asp?articlekey=20677.
45. Jemal A, Bray, F, Center, MM, Ferlay, J, Ward, E, Forman, D (2011). "Global cancer statistics". *CA: Cancer Journal for clinicians* 61 (2): 69–90.
46. Jemal A, Siegel R, Ward E, Murray T, Xu J, Thun MJ. Cancer statistics, (2007). CA: A *Cancer Journal for Clinicians.* ;57 (1):43–66
47. Jennifer S. Temel, Joseph A. Greer, Alona Muzikansky, Emily R. Gallagher, Sonal Admane, Vicki Jackson, Constance M. Dahlin, Craig D. Blinderman, Juliet Jacobsen, William F. Pirl, J. Andrew Billings, and Thomas J. Lynch, (2010) Early Palliative Care for Patients with Metastatic Non–Small-Cell Lung Cancer.N Engl J Med; 363:733-742
48. Jimmie C. H. (2002). History of Psycho-Oncology: Overcoming Attitudinal and Conceptual Barriers; *Psychosomatic Medicine* 64:206-221

49. Kalat, J. W. (2013). Biological Psychology. p. 383 Availabble from http://www.amazon.co.uk/Biological-Psychology-James-W-Kalat/dp/0495603007.

50. Khasakhala, L.I, Ndetei, D.M, and Mathai, M. (2013) Suicidal behaviour among youths associated with psychopathology in both parents and youths attending outpatient psychiatric clinic in Kenya. *Annals of General Psychiatry* 12:13

51. Khasakhala L.I, Ndetei D. M, Mathai M, and Harder V. (2013): Major depressive disorder in a Kenyan youth sample: relationship with parenting behaviour and parental psychiatric disorders; *Ann Gen Psychiatry*. 12: 15

52. K. Miller and M. J. Massie, (2010) "Depressive disorders," in Psycho-Oncology, J. Holland, W. Breitbart, P. Jacobsen, M. Lederberg, M. Loscalzo, and R. McCorkle, Eds., pp. 311–318, Oxford University Press, New York, NY, USA.

53. Kristjanson, L. J, and Aoun S., (2004). Palliative Care for Families: Remembering the Hidden Patients; The Canadian Journal of Psychiatry; Vol 49, No 6.

54. Lauver D, Ho CH (1993): Explaining delay in care seeking for breast cancer symptoms. J Appl Soc Psychol 23 (21): 1806-25,.

55. Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.

56. (Lazarus, R.S. (1966). *Psychological Stress and the Coping Process.* New York: McGraw-Hill.

57. Lilijana Šprah and Mojca Šoštarič (2004) A review:Psychosocial coping strategies in cancer patients.*Radiol Oncol 38(1): 35-42.*

58. Loehrer PJ Sr, Greger HA, Weinberger M, (1991) Knowledge and beliefs about cancer in a socioeconomically disadvantaged population. *Cancer;*68:1665-1671.

59. Lollini PL, Cavallo F, Nanni P, Forni G. (2006).Vaccines for tumour prevention: *Nature Reviews Cancer* ; 6(3):204–216.

60. Lutgendorf SK, Sood AK, Anderson B, (2005).Social support, psychological distress, and natural killer cell activity in ovarian cancer. *Journal of Clinical Oncology*; 23(28):7105-7113.

61. Masika,G.M, WettergrenL.3, Kohi, T.W and Essen, L (2012). Health-related quality of life and needs of care and support of adult Tanzanians with cancer: *a mixed-methods study*. Health and Quality of Life Outcomes 10:133.

62. Maxwell, J. (1997). Designing a qualitative study. In L. Bickman & D. J. Rog (Eds.) Handbook of applied social research methods (pp. 69-100). Thousand Oaks, CA: Sage.
63. Mehnert A, Koch U (2007). Prevalence of acute and post-traumatic stress disorder and comorbid mental disorders in breast cancer patients during primary cancer care: a prospective study. *Psychooncology*; **16:** 181–88.
64. Michele Borboa, MS (2009). Cancer and environmental carcinogens. American Cancer Society. Available on http://www.sheknows.com/health-and-wellness/articles/808909/cancer-and-environmental-carcinogens
65. Mitchell AJ, Chan M, Bhatti H, *et al.* (2011) Prevalence of depression, anxiety, and adjustment disorder in oncological, haematological, and palliative-care settings*: A meta-analysis of 94 interview-based studies.* Lancet Oncol *12:160–174.*
66. M. Li, S. Hales, and G. Rodin,(2010) "Adjustment disorders," in Psycho-Oncology, J. Holland, W. Breitbart, P. Jacobsen, M. Lederberg, M. Loscalzo, and R. McCorkle, Eds., pp. 303–310, Oxford University Press, New York, NY, USA.
67. Murray SA, Grant E, Mwangi-Powell F (2005). Health in Africa: time towake up to cancer's toll. *BMJ*; **331:** 904.
68. Mutuma G.Z, Korrir A.R. (2003) Cancer Incidence Report: Nairobi Cancer Registry; Kenya Medical Research Institute.
69. National Academy of Sciences (2004) Meeting Psychosocial Needs of Women with Breast Cancer. Bookshelf ID: NBK215950
70. Ndetei, D.M., Musibi, A.M., Mathai,M., Nato,J., Khasakhala, L. , Mutiso, V., Mbwayo,A.W., Kuria,L.W., Kitetu,W.(2011) The psychological and social profiles of cancer patients seen at Kenyatta National Hospital. A monograph of Africa mental health foundation.
71. NICE Clinical Guidance (2009). CG90 Depression in adults: full guidance interim proof copy. Available at http://guidance.nice.org.uk/CG90/Guidance/pdf/English .
72. Nuhu FT, Odejide OA, Adebayo KO, Yusuf AJ (2009); Psychological and physical effects of pain on cancer patients in IbadanNigeria Afr J Psychiatry: 12:64-70.
73. Parkin MD, Bray F, Ferlay J, Pisani P. (2002). Global cancer statistics, *CA Cancer J Clin 2005;55:74-108*.
74. Parkin DM, Wabinga H, Nambooze S, Wabwire-Mangen F.(1999) AIDS-related cancers in Africa: maturation of the epidemic in Uganda. *AIDS.* Dec 24;13(18):2563-

2570.10.

75. Passik SD, Kirsh K. (2004) Psycho-oncology. Business Briefing: US Oncology Review: 1-4.

76. Petersen RW, Quinlivan JA. (2002) Preventing anxiety and depression in gynaecological cancer: a randomised controlled trial. BJOG 109 (4): 386-94.

77. Powe BD, Finne R (2003): Cancer fatalism: the state of the science. *Cancer Nurs* 26:454-465.

78. Razavi, D and Stiefel, F (1994) Common psychiatric disorders in cancer patients. I. Adjustment disorders and depressive disorders. Support Care Cancer 2 (4): 223-32.

79. Reddick BK, Nanda JP, Campbell L, *et al* (2005). Examining the influence of coping with pain on depression, anxiety, and fatigue among women with breast cancer. J Psychosoc Oncol 23 (2-3): 137-57,.

80. Report of a joint working party of the Royal College of Physicians and the Royal College of Psychiatrists (2003). Psychological and psychiatric problems in the general hospital in the: *The psychological care of medical patients A practical guide*. Second edition. Pp 3

81. Roy Castle Lung Cancer Foundation (2010) Breathlessness in lung cancer. Coping with breathlessness. “Lung Cancer—A practical guide to breathlessness” booklet.

82. Satin JR, Linden W, Phillips MJ (2009). Depression as a predictor of disease progression and mortality in cancer patients: a meta-analysis. Cancer.;22:5349–5361.

83. Sepulveda C, Habiyambere V, Amandua J *et al*.(2003) Quality care at the end of life in Africa. *BMJ*; **327:** 209–213.

84. Shama W, Lucchetta S (2007): Psychosocial issues of the adolescent cancer patient and the development of the teenage outreach program (TOP). J Psychosoc Oncol 25:99-112

85. Sharp,D.M, Walker,M.B, Bateman,J.S, Braid,F., Hebblewhite,C, Hope,T, Lines,M, Walker,A.A and Walker,L.G (2009). Demographic characteristics of patients using a fully integrated psychosocial support service for cancer patients *BMC Research Notes*, 2:253.

86. Sheehan DV, Lecrubier Y, Harnett-Sheehan K, Amorim P, Janavs J, Weiller E,

Hergueta T, Baker R, Dunbar GC (1998). The Mini International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview. J Clin Psychiatry;12(Suppl 20):22–33.

87. Solomon Z, Garb R, Bleich A, *et al*, (1987). Reactivation of combat-related posttraumatic stress disorder. Am J Psychiatry 144 (1): 51-5.
88. Spencer SM, Carver CS, Price AA: Psychological and social factors in adaptation. In: Holland JC, Breitbart W, Jacobsen PB, et al., (1998) eds.: Psycho-oncology. New York, NY: Oxford University Press, , pp 211-222.
89. Spiegel D, Giese-Davis J.(2003) Depression and cancer: mechanisms and disease progression. Biol. Psychiatry;54(3):269–282.
90. Stark DP, House A.(2000). Anxiety in cancer patients. *Br J Cancer* 83: 1261-1267
91. Stark D, Kiely M, Smith A. (2002). Anxiety disorders in cancer patients: their nature, associations, and relation to quality of life. J Clin Oncol 20 (14): 3137-3148.
92. Steel J.L, Gamblin T.C, Olek M.C, Carr B.I. (2007) Depression, immunity, and survival in patients with hepatobiliary carcinoma. J. Clin. Oncol. 25:2397–2405. GD.
93. Street AF, Kissane DW (2001). Construction of dignity in end-of-life care. Journal of palliative care. 17(2): 93-101.
94. Summers, A (1998).Mental Health Consequences Of Cervical Screening. Psychology, Health And Medicine,3(1),113-126.
95. Susan K. Lutgendorf, Anil K. Sood, Barrie Anderson, Stephanie McGinn, Heena Maiseri, Minh Dao, Joel I. Sorosky, Koen De Geest, Justine Ritchie and David M. Lubaroff (2012) Social Support, Psychological Distress, and Natural Killer Cell Activity in Ovarian Cancer, journal of clinical oncology: August 10;2885-2890
96. Swai, P.J (2011). Psychiatric Morbidity among Adult Canter Patients Admitted at Ocean Road Cancer Institute, Dar es Salaam, Tanzania (unpublished MMed dissertation of UON).
97. Tashakkori, A., & Teddlie, C. (2003). Handbook of mixed methods in social & behavioral research. Thousand Oaks, CA: Sage.
98. Tenge C.N, Kuremu R.T, Buziba N.G, Patel K, Were PA. (2009) Burden and pattern of cancer in Western Kenya. *East Afr Med J*. Jan; 86(1):7-10
99. The International Network for Cancer Treatment and Research, (2014) Cancer in Developing countries Cancer – A Neglected Health Problem in Developing Countries

http://www.inctr.org/about-inctr/cancer-in-developing-countries/

100. Timothy R. Rebbeck (2011) *Cancer in Africa.* Atlanta: American Cancer Society.

101. Travis, William D; Brambilla, Elisabeth; Muller-Hermelink, H Konrad. (2004). *Pathology and Genetics of Tumours of the Lung, Pleura, Thymus and Heart.* World Health Organization Classification of Tumours. Lyon: IARC Press. ISBN 92-832-2418-3. Retrieved 27 March 2010.

102. Turk, D.C. (1979). factors influencing the adaptive process with chronic illness: implications for intervention. in I.G.Sarason And C.D.Spielberger (eds), stress and anxiety. New York and London: John Wiley & Sons**.**

103. Weisman AD, Worden JW (1977): The existential plight in cancer: significance of the first 100 days. Int J Psychiatry Med 7 (1): 1-15.

104. UK office national statistics UK office national statistics (2013) :http://www.ons.gov.uk/ons/rel/vsob1/cancer-statistics-registrations--england--series-mb1-/index.html

105. Wendy G. L, Nilsson. M, Zhang. B, Trice.D.E, Kissane D.W, Breitbart W, Prigerson H.G; (2009) Do Rates of Mental Disorders and Existential Distress among Advanced Stage Cancer Patients Increase as Death Approaches?; Psychooncology; 18(1): 50–61.

106. Westaby, J. D. & Versenyi, A. V.(2005). Intentions to work during terminal illness: an exploratory study of antecedent conditions. *Journal of Applied Psychology,* 90(6), 1297-1305. Retrieved April 28, 2008, from PsychINFO database.

107. Wilson KG, Chochinov HM, Skirko MG, (2007) Depression and anxiety disorders in palliative cancer care. J Pain Symptom Manage 33 (2): 118-29, 2007.

108. White C.A and Macloed Una (2002) Cancer, Psychological Aspects: British Medical Journal; 325(377–380.)

109. World Health Organization. Palliative Care. In: World Health Organisation www.who.int/cancer,palliative/;2002.

110. W.H.O The International Agency for Research on Cancer IARC) GLOBOCAN (2012). Estimated cancer incidence, mortality and prevalence worldwide in 2012.

111. World Health Organization (2010). The International Classification of Diseases. Tenth Revision (ICD-10) Geneva;

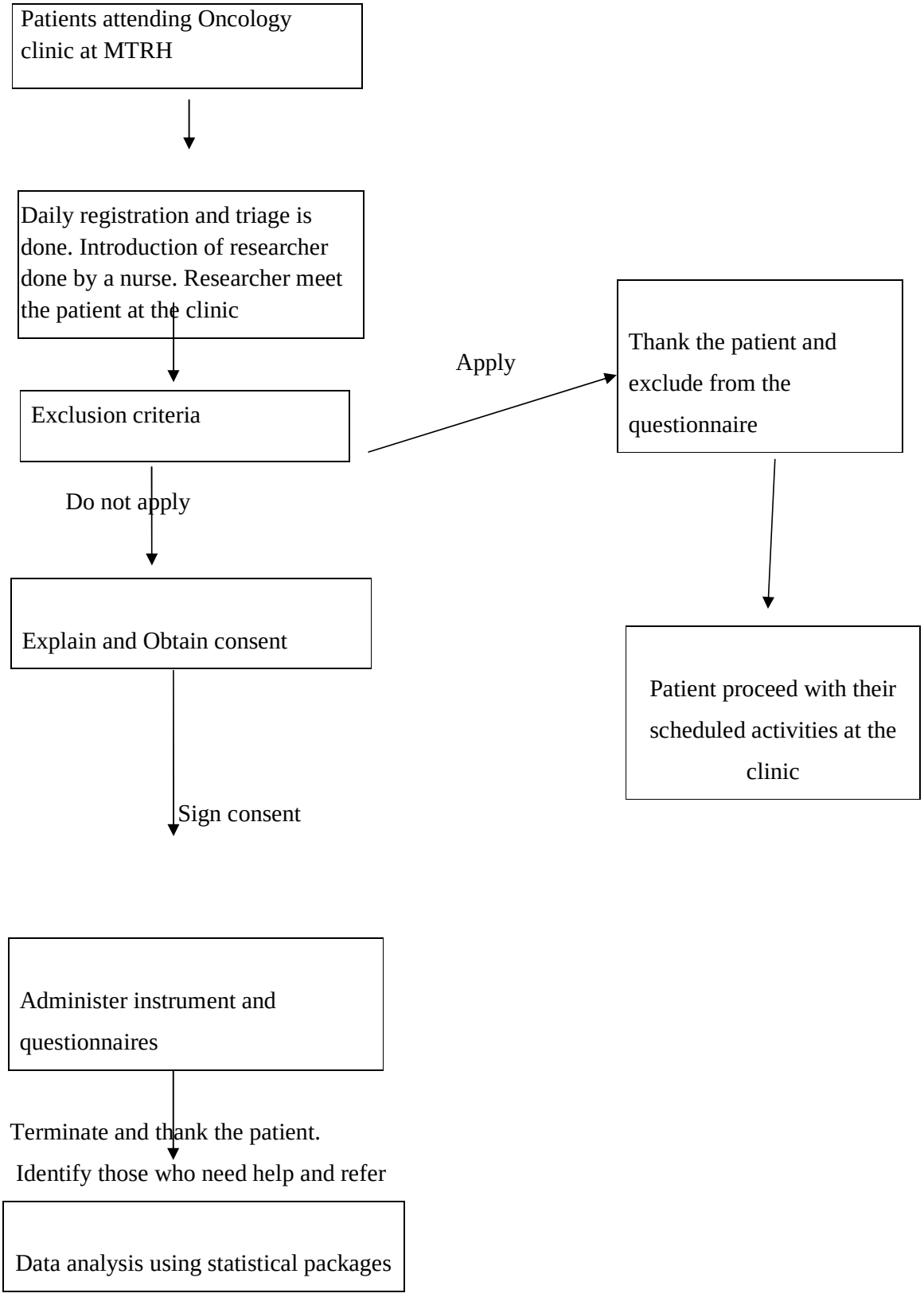
112. Zabora J, BrintzenhofeSzoc K, Curbow B, Hooker C, Piantadosi S (2001) The

prevalence of psychological distress by cancer site. Psychooncology 10(1):19–28

113. Zigmond A.S, Snaith RP (1983) The Hospital Anxiety And Depression Scale. *Acta Psychiatry Scand* 67:361-70.

114. W.H.O The International Agency for Research on Cancer IARC) GLOBOCAN 2012 Estimated cancer incidence, mortality and prevalence worldwide in 2012.

APPENDIX A: RECRUITMENT FLOW CHART



APPENDIX B1: CONSET SEEKING INFORMATION – PARTICIPANTS

I am, Milkah Obwenyi Angachi from University of Nairobi department of psychiatry. I am conducting this study as part of my fulfillment of the degree program as a Clinical Psychology Student. I am conducting a study on **PSYCHOSOCIAL ASPECT AMONG ADULT CANCER PATIENTS ATTENDING ONCOLOGY CLINIC AT MOI TEACHING AND REFERRAL HOSPITAL – ELDORET KENYA.** The study will be carried out on patients attending the oncology clinic at the Moi Teaching and Referral Hospital (MTRH), Eldoret. I kindly request you to participate. Taking part in this study is **voluntary**. You have a right to refuse to take part in the study. If you agree to participate but change your mind it is alright. You can withdraw from the study at any time. Refusal to participate in this study will not deny you any service offered in the clinic. You will read this form once you have understood the information given; you can decide if you wish to participate in the study or not.

I will provide you with questionnaires which you will answer as appropriate to the various parts. The study will be coded so that it will not be linked to your name. All information obtained in the course of the study will be held in confidence.

There are no risks involved except the time you will take in filling the questionnaire, about twenty to thirty minutes of your time or emotional pain of identifying you or your friends with some of the symptoms.

There is benefit to the patients as an individual because they will be diagnosed for psycho social issues and referred appropriately. The result from the research will help improve management of psychosocial issues of cancer patients in Kenya. Should you identify with any issues in the instrument and wish to get help please contact me on **0722805301**.

As you participate you will answer the questions. There will be no right or wrong answers, but you answer as the case applies to your as an individual situation. You are free to ask any questions any time. Thank you for your response and time.

Milkah Obwenyi Angachi

Msc. Clinical Psychology student, University of Nairobi.

APPENDIX B2: KIBALI CHA KUSHIRIKI KWENYE UTAFITI

Mimi ni Milkah Obwenyi Angachi kutoka chuo kikuu cha Nairobi, idara ya Psychiatry. Nina fanya utafiti huu kama sehemu ya kutimiza degree ya Clinical Psychology. Nina fanya utafiti kwa watu wazima wanao ugua ugonjwa wa saratani ambao wana hudumiwa katika kliniki ya magonjwa ya saratani kwa hospitali ya Mafunzo na Rufaa ya Moi (MTRH), Eldoret Kenya. Ningependa kukuomba wewe kushiriki. Kushiriki katika zoezi hili ya utafiti ni kwa hiari. Si lazima ushiriki kama hutaki. Ukikubali kushiriki kisha ubadilishe mawazo hakuna neno. Unaweza kuwacha kushiriki kwa huu utafiti wakati wowote. kutoshiriki kwa utafiti hautakuzuia kupata huduma yoyote inayaotolewa kwenye kliniki. Utasoma fomu, utakapoelewa maelezo iliyomo uta fanya uamuzi wa kushiriki au kutoshiriki.

Nita kupatia maswali ambayo utajibu ipasavyo katika sehemu mbali mbali. Hatuta liandika jina lako kwenye fomu yako. Nambari itaandikwa kwenye fomu yako kuliwakilisha jina lako. Habari zote zitakazopatikana katika mwendo wa utafiti huu itawekwa kwa siri.

Hakuna hatari yoyote utakayo pata isipokua wakati ambayo utaitumia kwa kujaza maswali, Kadiri ya dakika ishirini au thelathini ya muda wako au maumivu ya kihisia ya kutambua wewe au rafiki yako na baadhi ya dalili.

Kuna faida ya moja kwa moja kwako kama mshiriki binafsi kwa sababu itawekana kujua hali yako ya mawazo na upewe rufaa ipasavyo. Matokeo ya utafiti itakuwa ya manufaa kwa huduma ya wagonjwa wa saratani katika nchi ya Kenya kwa matatizo ya psychologia. Ukipata shida yoyote kwa maswali haya na ukipenda kupata usaidizi, tafadhali piga simu kwa nambari yangu **0722805301**.

Unaposhiriki utajibu maswali. Hakuna haki au majibu sahihi lakini jibu kama kesi inatumika kwa hali yako binafsi. Una uhuru kuuliza maswali yoyote juu ya utafiti wakati wowote.

Shukrani kwa mawazo yako na kwa wakati wako.

Milkah Obwenyi Angachi

Msc. Clinical Psychology student, University of Nairobi

APPENDIX C: CONSENT FORM

CONSENTING FORM FOR THE PATIENT TO PARTICIPATE IN THE STUDY

My name is _____ I confirm that I have read the above information or the information has been explained to me by _____. I confirm that I had the opportunity to ask questions and all my questions have been answered. I confirm that I understand the nature of the study and that I want to participate. I understand that I may at anytime during the study revoke the consent without any loss or penalty.

Signature…… Date ……

(Or Thumb print)

I _____ (interviewer) confirm that the above named read the consent explanation OR I read it to him/her, answered all questions raised and that she/he has agreed to participate in the study and can withdraw any time.

KIBALI CHA MGONJWA KUSHIRIKI KATIKA UTAFITI

Jina langu ni _____ Nathibitisha kwamba nimesoma maelezo ya hapo juu ya ridhaa au kuthibitisha kwamba maelezo ya ridhaa yamesomwa kwangu na _____. Nathibithisha ya kwamba nilipata nafasi ya kuuliza maswali na kwamba nime elewa asili ya utafiti na nataka kushiriki, lakini pia naweza kutoka muda wowote bila hasara au adhabu.

Saini_____ Tarehe_____

Mimi _____ (Mtafiti) nathibitisha kwamba mtu aliyetajwa hapo juu amesoma maelezo ya ridhaa au mimi nilimsomea ridhaa, nikajibu maswali yote aliyouliza na kwamba yeye amekubali kushiriki katika utafiti na anaweza kujiuzuru kushiriki katika utafiti huu wakati wowote.

APPENDIX D1 QUESTIONNAIRE

1. a) SOCIO-DEMOGRAPHIC DATA

1. Age in years _____
2. Gender ( ) Male ( ) Female
3. Citizenship ( ) Kenyan ( ) Others specify _____
4. Religion ( ) Protestant ( ) Catholic ( ) Muslim ( ) Others specify _____.
5. Residence _____
6. Marital status ( ) Single ( ) Married ( ) Separated ( ) Divorced ( )cohabiting ( ) Widow/ Widower
7. Who are you currently living with ( ) Spouse ( ) parents ( ) Children ( ) Relative ( ) Friend ( ) Others specify_____
8. Highest level of education ( ) No formal education ( ) primary ( ) Secondary ( ) College ( ) University ( ) Others specify
9. Your usual type of work, even if not working now. Please be specific—for example, auto Mechanic; High school teacher ; Student (studying)

   ( ) Your work _____ ( ) Spouse or partner's work _____
10. What is your monthly income in Kenya shillings ( ) < 3000ksh ( ) 3000-10000 ( ) 10000-20000 ( ) >200000ksh

b) CLINICAL QUESTIONNAIRES

History of the illness (**Information extracted from the file notes**)

Site/organ involved by cancer _____

Histology report confirmation _____

Stage of cancer: ( ) Stage 0 ( ) Stage I ( ) Stage II ( ) Stage III ( ) Stage IV

Current treatment being given ( ) Chemotherapy ( ) surgery ( ) radiotherapy ( ) palliative ( ) Combination ( ) others specify_____

What kind of psychosocial problem has been documented in the file? _____

Was the case/ problem treated or referred? ( ) Yes ( ) No

Has anyone discussed the psychosocial problems with the patient? ( ) Yes ( ) No

If yes specify ( ) Trained counselor ( ) Nurse ( )Doctor ( ) Others specify

_____

(**Information from the patient**)

11. Have you been informed of the type of disease you have ( ) Yes ( ) No

    a) If yes please specify _____

12. When did you know that you have cancer? ( )less than 1 month ago ( ) 1 – 6 months ago ( ) 6months – 1 year ( ) more than 1 year.

13. Do you know the stage of cancer you are suffering from? ( ) Yes ( ) No If yes in which stage are you? ( )Stage 0 ( )Stage I ( ) Stage II ( )Stage III ( )Stage IV

14. Who informed you about the cancer ( )Nurse ( )Doctor ( )Relative

    ( ) Other Specify_____

15. What was your reaction? ( )Anxious ( ) Angry ( )Confuse ( ) sad ( ) Not believe it ( )Others specify _____

16. Were you accompanied by a relative/ friend to the hospital? ( )Yes ( ) No

17. Has anyone discussed with you about your thought of the cancer? ( ) Yes ( ) No

    a) If yes, specify_____

    b) If yes who? ( )Trained counselor ( ) Nurse ( )Doctor ( ) Relative

    ( ) Friend ( ) Others specify

    c) How many sessions ( ) Once ( ) Twice ( ) Three times ( ) More than four times

18. Before diagnosis of cancer had you suffered from any psychosocial problem?

( ) Yes ( ) No

a) If yes specify _____

b) Did you receive any treatment? ( ) Yes ( ) No

c) If yes specify _____

APPENDIX D2: QUESTIONNAIRE IN KISWAHILI

1.a) Jamii ya Watu na mambo ya hakika

1. Umri wa miaka _____
2. Jinsia: ( ) Mume ( ) Mke
3. Uraia ( ) Mkenya ( ) Nyingine fafanua _____
4. Imani/ Dini ya: ( ) Protestanti ( ) Katoliki ( ) Uislamu ( ) Asili ( ) Dini nyingine fafanu_____
5. Makao yako _____
6. Je umeolewa/ kuoa? ( ) Sijawahi kuolewa/ kuoa ( ) Nimeolewa na twaishi pamoja ( ) Nimeolewa lakini tumetengana **( )** Talaka ( ) Mjane ( ) Nyingine fafanua**:** _____
7. Unaishi na nani wakati huu ( ) Mume/ Mke ( ) Wazazi/ Mzazi ( ) Watoto/ Mtoto wangu ( ) Rafiki ( ) Nyingine fafanua _____
8. Kiwango cha juu cha elimu ulioipata

   ( ) Sija soma shuleni ( ) Shule ya msingi ( ) Shule ya upile ( ) Jamii ya chuo kikubwa ( ) Chuo kikubwa ( ) Nyingine fafanua _____
9. Aina ya kazi unayo fanya, hata kama hufanyi kazi wakati huu. Tafadhali sema wazi— kwa mfano Mekanik; Mwalimu wa shule; Mwanafunzi (Unasomea) ( ) Kazi yako_____ ( ) kazi ya mume au mke wako _____
10. Mapato yako kwa mwezi ni ngapi: Ksh. ( ) < 3000ksh ( ) 3000-10000 ( ) 10000-20000 ( ) >200000ksh.

Historia ya ugonjwa (Taarifa kutoka kwa faili ya mgonjwa)

b) CLINICAL QUESTIONNAIRES

History of the illness (**Information extracted from the file notes**)

Site/organ involved by cancer _____

Histology report confirmation _____

Stage of cancer: ( ) Stage 0 ( ) Stage I ( ) Stage II ( ) Stage III ( ) Stage IV

Current treatment being given ( ) Chemotherapy ( ) surgery ( ) radiotherapy ( ) palliative ( ) Combination ( ) others specify_____

What kind of psychosocial problem has been documented in the file? _____

Was the case/ problem treated or referred? ( ) Yes ( ) No

Has anyone discussed the psychosocial problems with the patient? ( ) Yes ( ) No

If yes specify ( ) Trained counselor ( ) Nurse ( ) Doctor ( ) Others specify _____

Taarifa kutoka kwa mgonjwa

11. Je umeelezwa aina ya Ugonjwa uliyo nayo? ( ) Ndiyo ( ) Hapana

    a) Kama ndiyo tafadhali eleza _____

12. Nilini ulipata kujua una ugonjwa wa saratani? ( ) Muda kupungua mwezi mmoja ( ) Mwezi mmoja hadi sita ( ) Miezi sita hadi mwaka mmoja ( ) zaidi ya mwaka mmoja
13. Je unajuwa kiwango cha saratani unayo ugua? ( ) Ndiyo ( ) Hapana

    a) Kama ndiyo saratani iko katika kiwango kipi? ( ) kiwango 0 ( ) kiwango I ( ) kiwango II ( ) kiwango III ( ) kiwango IV

14. Ulielezwa na nani kuhusu saratani? ( )Muuguzi ( )Daktari ( ) Jamaa ( ) Mwingine fafanua _____

15. Uli ichukulia namna gani maelezo hayo? ( ) sikuamini ( ) Nilikuwa na wasiwasi

    ( ) Nilichanganyikiwa ( ) Nilikuwa na huzuni ( ) Nilikasirika

    ( ) Nyingine fafanua _____

16. Uli ambatana na jamii au rafiki huko hospitali? ( ) Ndiyo ( ) Hapana

17. Je ulipewa ushauri wowote kuhusu mawazo yako ya saratani uliyo nayo? ( ) Ndiyo ( ) Hapana

    a) Kama ndiyo ni nani aliye kushauri? ( )Mshauri aliye hitimu ( ) ( )Muuguzi

    ( ) Daktari ( ) Jamaa ( ) Mwingine fafanua _____

    b) Ulishauriwa mara ngapi? ( ) Moja ( ) mara mbili ( ) mara tatu ( ) zaidi ya

mara tatu

18. Kabla kutambuliwa kwa ugonjwa wa saratani ume wahi kuugua tatizo la mawazo?

( ) Ndiyo ( ) Hapana

a) Kama ndiyo fafanua _____

b) Ulipokea matibabu? ( ) Ndiyo ( ) Hapana

c) Kama ndiyo fafanua _____

APPENDIX E: M.I.N.I- PLUS DSM IV

Mini International Neuropsychiatric Interview

English Version 5.0.0

DSM-IV

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University of South Florida - Tampa - USA.

PATIENT'S NAME :	_____	***PROTOCOL NUMBER :***	_____
JINA LA MGONJWA:	_____	***NAMBA YA PROTOKALI:***	_____
DATE OF BIRTH :	_____	***Time Interview Began :***	_____
TAREHE YA KUZALIWA:	_____	***Muda wa Kuanza Usaili :***	_____
INTERVIEWER'S NAME :	_____	***Time Interview Ended :***	_____
JINA LA MSAILI :	_____	***Muda wa Kumaliza Usaili :***	_____
DATE OF INTERVIEW :	_____	***TOTAL TIME :***	_____
TAREHE YA USAILI :	_____	***MUDA ULIOTUMIKA :***	_____

MODULES VIHUNZI HURU	TIME FRAME MUDA	
A. MAJOR DEPRESSIVE EPISODE A. TUKIO LA SONONA	Current (past 2 weeks) + Lifetime Kwa sasa(wiki 2) +siku za nyuma	
A'. MDE with melancholic features TUKIO LA SONONA lenye uzito wa moyo(hiari)	Current (past 2 weeks)	Optional
B. DYSTHYMIA B. DISTHIMIA	Current (past 2 years)	
C. SUICIDALITY C. HALI YA KUTAKA KUJIUA	Current (past month)	
D. (HYPO) MANIC EPISODE D. TUKIO LA MANIA(MANIA NDOGO)	Current + Lifetime	
E. PANIC DISORDER E. UGONJWA WA HOFU KUBWA	Lifetime + current (past month)	
F. AGORAPHOBIA F. WOGA WA NAFASI ZA WAZI	Current	
G. SOCIAL PHOBIA G. WOGA WA MKUSANYIKO WA WATU	Current (past month)	
H. OBSESSIVE-COMPULSIVE DISORDER H. UGONJWA WA SHAUKU LAZIMISHO	Current (past month)	
I. POSTTRAUMATIC STRESS DISORDER I. UGONJWA WA MSONGO BAADA YA MATUKIO MABAYA	Current (past month)	Optional
J. ALCOHOL DEPENDENCE / ABUSE J. KUTAWALIWA NA POMBE / MATUMIZI MABAYA YA POMBE	Current (past 12 months)	

K. DRUG DEPENDENCE / ABUSE (Non-alcohol) K. KUTAWALIWA / MATUMIZI MABAYA YA MADAWA YA KULEVYA (isiyo pombe)	Current (past 12 months)	
L. PSYCHOTIC DISODERS L. MAGONJWA YA SAIKOSIS	Lifetime + Current	
M. ANOREXIA NERVOSA M. UGONJWA WA TAFSIRI YA MAUMBILE BINAFSI UNAOHUSIANA NA KUTOKULA	Current (past 3 months)	
N. BULIMIA NERVOSA N. UGONJWA WA TAFSIRI YA MAUMBILE BINAFSI UNAOHUSIANA NA KULA MNO	Current (past 3 months)	
O. GENERALIZED ANXIETY DISORDER O. UGONJWA WA WASIWASI MKUBWA	Current (past 3 months)	
P. ANTISOCIAL PERSONALITY DISORDER P. UGONJWA WA MAKUZI YA HULKA NA TABIA ZINAZOPINGANA NA JAMII	Lifetime	Optional

GENERAL INSTRUCTIONS

The M.I.N.I. was designed as a brief structured interview for the major Axis I psychiatric disorders in DSM-IV and ICD-10. Validation and reliability studies have been done comparing the M.I.N.I. to the SCID-P and the CIDI. The results of these studies show that the M.I.N.I. has acceptably high validation and reliability scores, but can be administered in a much shorter period of time (mean 18.7 ± 11.6 min., median 15 min.) than the above referenced instruments.

It can be used by clinicians, after a brief training session. Lay interviewers require more extensive training.

- **Interview :**

In order to keep the interview as brief as possible, inform the patient that you will conduct a clinical interview that is more structured than usual, with very precise questions about psychological problems which requires a yes or no answer.

- **General format :**

  The M.I.N.I. is divided into **modules** identified by letters, each corresponding to a diagnostic category.

  - At the beginning of each module (except for psychotic disorders module), **screening question(s)** corresponding to the main criteria of the disorder are presented in a **gray box**.
  - At the end of each module, **diagnostic box(es)** permit(s) the clinician to indicate whether the diagnostic criteria are met.

- **Conventions :**

  Sentences written in **«** normal font » should be read exactly as written to the patient in order to standardize the assessment of diagnostic criteria.

  Sentences written in **«** CAPITALS » should not to be read to the patient. They are instructions for the interviewer to assist in the scoring of the diagnostic algorithms.

  Sentences written in « **bold »** indicate the time frame being investigated. The interviewer should read them as often as necessary. Only symptoms occurring during the time frame indicated should be considered in scoring the responses.

  Sentences (in parentheses) are clinical examples of the symptom .These may be read to the patient to clarify the question.

  Answers with an arrow above them (➔) indicate that one of the criteria necessary for the diagnosis (es) is not met. In this case, the interviewer should go to the end of the module, to circle « **NO** » in all the diagnostic boxes and move to the next module.

  When terms are separated by a *slash (/),* the interviewer should read only those symptoms known to be present in the patient (for example, question A3).

- **Rating instructions:**

  All questions read must be rated. The rating is done at the right of each question by circling either YES or NO.

The clinician should be sure that each dimension of the question is taken into account by the patient (i.e.: time frame, frequency, severity, « and/or » alternatives).

Symptoms better accounted for by an organic cause or by the use of alcohol or drugs should not be coded positive in the M.I.N.I.. The M.I.N.I. Plus has questions that investigate these issues.

For any questions, suggestions, need for a training session, or information about updates of the M.I.N.I., please contact :

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➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

A. MAJOR DEPRESSIVE EPISODE
TUKIO LA SONONA

A1	Have you been consistently depressed or down, most of the day, nearly every day, for the past two weeks ? Je, ulishawahi kukosa raha muda mwingi wa siku, karibu kila siku, kwa muda wa wiki mbili zilizopita?	NO HAPANA	YES NDIYO	1 1
A2	In the past two weeks, have you been less interested in most things or less able to enjoy the things you used to enjoy most of the time ? Katika wiki mbili zilizopita, je, umekosa hamu/ari katika vitu vingi au kukosa raha kwa muda mwingi katika vitu vilivyokuwa vikikufurahisha ?	NO HAPANA	YES NDIYO	2 2
		➔		
	IS **A1** OR **A2** CODED **YES** ? JE, KIPENGELE **A1** AU **A2** KIMEJIBIWA NDIYO?	NO HAPANA	YES NDIYO	
A3	**Over the past two weeks, when you felt depressed and/or uninterested :** **Katika kipindi cha wiki mbili zilizopita, ulipojisikia kukosa raha na / au kutokuwa na ari:**			
a	Was your appetite decreased or increased nearly every day or did your weight decrease or increase without trying intentionally ? (i.e., ± 5 % of body weight or ± 3,5 kg or ± 8 lbs., for a 70 kg / 120 lbs. person in a month) Je, hamu yako ya kula ilipungua au kuongezeka, karibu kila siku? Uzito wako ulipungua au uliongezeka bila wewe kukusudia? (yaani ± 5 % ya uzito wako au kg. 3.5 katika mwezi)	NO	YES	3
	IF **YES** TO EITHER, CODE **YES**	HAPAN	NDIY	3

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
IWAPO **J**IBU NI **N**DIYO KWA **L**OLOTE, **J**AZA **N**DIYO	A	O	
b Did you have trouble sleeping nearly every night (difficulty falling asleep, waking up in the middle of the night, early morning wakening, or sleeping excessively) ?			
Je, ulipata shida ya usingizi karibu kila siku? (tabu ya kupata usingizi, kukatika usingizi katikati ya usiku, kuamka mapema sana, au kulala mno)	NO HAPANA	YES NDIYO	4 4
c Did you talk or move more slowly than normal or were you fidgety, restless or having trouble sitting still, almost every day?	NO	YES	5
Je, ulikuwa ukiongea au kutembea taratibu zaidi kuliko kawaida yako, au ulikuwa na hali ya kuhangaika, kutotulia, au kuwa na tatizo la kukaa kwa utulivu karibu kila siku?	HAPANA	NDIYO	5
d Did you feel tired or without energy, almost every day?	NO	YES	6
Je, ulijisikia mchovu au kutokuwa na nguvu karibu kila siku?	HAPANA	NDIYO	6
e Did you feel worthless or guilty, almost every day?	NO	YES	7
Je, ulijisikia huna thamani au kuwa na hali ya kujilaumu karibu kila siku?	HAPANA	NDIYO	7
f Did you have difficulty concentrating or making decisions, almost every day?	NO	YES	8
Je, ulikuwa na matatizo ya kuwa makini au kufanya maamuzi karibu kila siku?	HAPANA	NDIYO	8
g Did you repeatedly consider hurting yourself, feel suicidal, or wish that you were dead?	NO	YES	9
Je, mara kwa mara ulifikiria kuhusu kujiumiza, au kutaka kujiua, au	HAPAN	NDIY	

bora ufe? A O 9

		NO	**YES**	
A4	ARE **3** OR MORE **A3** ANSWERS CODED **YES** ? (OR **4 A3** ANSWERS IF **A1** OR **A2** ARE CODED **NO**) JE, VIPENGELE **3** AU ZAIDI VYA **A3** VIMEJIBIWA **NDIYO**? (AU MAJIBU **4 YA A3** IKIWA **AI** AU **A2** VIMEJIBIWA **HAPANA**)	**HAPANA** **NDIYO**		

MAJOR DEPRESSIVE EPISODE CURRENT

TUKIO LA SONONA *KWA SASA*

IF PATIENT MEETS CRITERIA FOR MAJOR DEPRESSIVE EPISODE CURRENT :

IKIWA MGONJWA ATAFIKIA VIGEZO VYA TUKIO LA SONONA KWA SASA:

		➔		
A5 a	During your lifetime, did you have other periods of two weeks or more when you felt depressed or uninterested in most things, and had most of the problems we just talked about ?	NO	YES	10
	Katika maisha yako, uliwahi kuwa na kipindi kingine cha wiki mbili au zaidi ambapo ulikosa raha au kukosa ari katika mambo mengi na kwamba umekuwa na shida kama zile tulizokwishazizungumza?	➔	NDIYO	10
		HAPANA		
b	Was there an interval of at least 2 months without depression and/or lost of interest between your current episode and your last episode of depression ? Je, kulikuwa na kipindi cha angalau miezi 2 bila hali ya kukosa raha na /au kupoteza ari kati ya wakati huu na ulipokuwa na hali hii siku za nyuma?	NO	YES	11
		HAPANA	HAPANA	11

NO	**YES**

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

IS **A5b** CODED **YES** ?

JE, KIPENGELE **A5b** KIMEJIBIWA **NDIYO**?

HAPANA **NDIYO**

MAJOR DEPRESSIVE EPISODE PAST

TUKIO LA SONONA *WAKATI ULIOPITA*

A'. MAJOR DEPRESSIVE EPISODE WITH MELANCHOLIC FEATURES (optional)

A. TUKIO LA SONONA LILILOAMBATANA NA UZITO WA MOYO (HIARI)

IF THE PATIENT CODES POSITIVE FOR A MAJOR DEPRESSIVE EPISODE (**A4 = YES**), EXPLORE THE FOLLOWING :

KAMA MGONJWA ATADHIHIRISHA KUWA NA SONONA KWA SASA (**A4 = NDIYO**), CHUNGUZA YAFUATAYO:

A6	IS **A2** CODED **YES** ?	NO	YES	12
a	JE KIPENGELE **A2** KIMEJIBIWA NDIYO?	HAPANA	NDIYO	12
b	During the most severe period of the current depressive episode, did you lose your ability to respond to things that previously gave you pleasure, or cheered you up? Wakati wa hali mbaya zaidi ya sonona ya sasa, uliwahi kupoteza uwezo wa kufanya vitu ambavyo mwanzoni vilikuwa vikikupa furaha au kukuchangamsha?	NO	YES	13
	IF NO : When something good happens does it fail to make you feel better, even temporarily ? **KAMA JIBU NI HAPANA:**Wakati jambo zuri linatokea, je, jambo	HAPANA	NDIYO	13
		➔		
	IS EITHER **A6a** OR **A6b** CODED **YES** ?	NO	YES	
		➔		
	JE, KIPENGELE **A6a** AU **A6b** KIMEJIBIWA NDIYO?	HAPANA	NDIYO	

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
	Over the past two weeks period, when you felt depressed and uninterested : **Katika kipindi cha wiki mbili zilizopita, ulipojisikia kukosa raha au kukosa ari:**			
A7 a	Did you feel depressed in a way that is different from the kind of feeling you experience when someone close to you dies ? Je, ulikosa raha tofauti na vile unavyojisikia wakati unapofiwa na mtu wako wa karibu?	NO	YES	14
		HAPANA	NDIYO	14
b	Did you feel regularly worse in the morning, almost every day ?	NO	YES	15
	Je, ulijisikia kuwa na hali mbaya zaidi kwa kila asubuhi karibu kila siku?	HAPANA	NDIYO	15
c	Did you wake up at least 2 hours before the usual time of awakening and have difficulty getting back to sleep, almost every day ? Je, ulikuwa ukiamka angalau masaa mawili kabla ya muda wako wa kawaida wa kuamka na kupata tabu ya kulala tena karibu kila siku?	NO	YES	16
		HAPANA	NDIYO	16
e	IS **A3c** CODED **YES** ?	NO	YES	17
	JE, KIPENGELE **A3c** KIMEJIBIWA NDIYO?	HAPANA	NDIYO	17
d	IS **A3a** CODED **YES** (ANOREXIA OR WEIGHT LOSS ONLY)?	NO	YES	18
	JE, KIPENGELE **A3a** KIMEJIBIWA NDIYO (KUKOSA HAMU YA CHAKULA AU KUPUNGUA MWILI)?	HAPANA	NDIYO	18
f	Did you feel excessive guilt or out of proportion to the reality of the situation ? JE, **A3e** IMEJIBIWA NDIYO (KUJILAUMU KUPITA KIASI, AU	NO	YES	19

KUJILAUMU KUSIVYOSTAHILI)?

HAPANA NDIYO 19

ARE **3** OR MORE **A7** ANSWERS CODED **YES** ?

JE, VIPENGELE **VITATU** AU ZAIDI VYA **A7** VIMEJIBIWA **NDIYO**?

NO **YES**

HAPANA NDIYO

MAJOR DEPRESSIVE EPISODE

With Melancholic Features

CURRENT

TUKIO LA SONONA lililoambatana na uzito wa moyo KWA SASA

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

B. DYSTHYMIA
DISTHIMIA

IF PATIENT'S SYMPTOMS CURRENTLY MEET CRITERIA FOR MAJOR DEPRESSIVE EPISODE, DO NOT EXPLORE THIS MODULE

KAMA DALILI ZA MGONJWA KWA SASA ZINAFIKIA KIGEZO CHA TUKIO LA SONONA , USICHUNGUZE KIHUNZI HURU HIKI

		➔		
B1	Have you felt sad, low or depressed most of the time for the last two years ?	NO	YES	20
	Je, ulijisikia huzuni, mnyonge au kukosa raha muda mwingi kwa kipindi cha miaka miwili iliyopita?	➔ HAPANA	NDIYO	20
			➔	
B2	Was this period interrupted by your feeling OK for two months or more ?	NO	YES	21
	Je, kipindi hiki kilikatizwa na hali ya kujisikia safi kwa muda wa miezi miwili au zaidi?	➔ HAPANA	NDIYO	21

B3 **During this period of feeling depressed most of the time :**

Wakati wa kipindi hiki cha kujisikia kukosa raha muda mwingi:

a	Did your appetite change significantly ?	NO	YES	22
	Je, hamu yako ya kula ilibadilika kwa kiasi kikubwa?	HAPANA	NDIYO	22

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
b	Did you have trouble sleeping or sleep excessively ?	NO	YES	23
	Je, ulipata tabu ya kupata usingizi au kulala mno?	HAPANA	NDIYO	23
c	Did you feel tired or without energy ?	NO	YES	24
	Je, ulijisikia kuchoka au kukosa nguvu?	HAPANA	NDIYO	24
d	Did you lose your self-confidence ?	NO	YES	25
	Je, ulipoteza uwezo wa kujiamini?	HAPANA	NDIYO	25
e	Did you have trouble concentrating or making decisions ?	NO	YES	26
	Je, ulikuwa na tabu ya kuwa makini au ya kutoa maamuzi?	HAPANA	NDIYO	26
f	Did you feel hopeless ?	NO	YES	27
	Je, ulijisikia kukosa matumaini?	HAPANA	NDIYO	27
		➔		
	ARE **2** OR MORE **B3** ANSWERS CODED **YES** ?	NO	YES	
		➔		
	JE, VIPENGELE **2** AU ZAIDI VYA **B3** VIMEJIBIWA NDIYO?	HAPANA	NDIYO	
B4	Did the symptoms of depression cause you significant distress or impair your ability to function at work, socially, or in some other	➔		

important way ? NO YES 28

Je, dalili za kukosa raha zilikupa shida nyingi au kudhoofisha ufanisi wako kazini, kijamii, au katika njia nyingine muhimu? ➔

HAPANA NDIYO 28

IS **B4** CODED **YES** ?

JE KIPENGELE **B4** KIMEJIBIWA **NDIYO**?

NO **YES**

HAPANA **NDIYO**

DYSTHYMIACURRENT

DISTHIMIA *KWA SASA*

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

C. SUICIDALITY
HALI YA KUTAKA KUJIUA

In the past month did you :

Katika mwezi uliopita, je:

C1	Think that you would be better off dead or wish you were dead ?	NO	YES	1
	Ulifikiria kwamba ni bora ungekufa?	HAPANA	NDIYO	1
C2	Want to harm yourself ?	NO	YES	2
	Ulitaka kujidhuru?	HAPANA	NDIYO	2
C3	Think about suicide ?	NO	YES	3
	Ulifikiria juu ya kutaka kujiua?	HAPANA	NDIYO	3
C4	Have a suicide plan ?	NO	YES	4
	Ulikuwa na mipango ya kujiua?	HAPANA	NDIYO	4
C5	Attempt suicide ?	NO	YES	5
	Ulijaribu kujiua?	HAPANA	NDIYO	5

In your lifetime

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

Katika maisha yako

C6

Did you ever make a suicide attempt ?	NO	YES	6
Ulishawahi, wakati wowote, kujaribu kujiua?	HAPANA	NDIYO	6

IS AT LEAST **1** OF THE ABOVE CODED **YES** ?

JE, ANGALAU KIPENGELE **KIMOJA** KATI YA VYA HAPO JUU, KIMEJIBIWA **NDIYO**?

IF YES, **SPECIFY** THE LEVEL OF SUICIDE RISK AS FOLLOWS :

KAMA NDIYO, **ELEZA** KIWANGO CHA HATARI YA KUJIUA KAMA IFUATAVYO:

C1 or C2 or C6 = YES : LOW

C1 au C2 au C3 = NDIYO : HATARI NDOGO

C3 or (C2 +C6) = YES : MODERATE

C3 au (C2 +C6) = NDIYO : HATARI YA KATI

C4 or C5 or (C3 + C6) = YES : HIGH

NO **YES**

HAPANA **NDIYO**

SUICIDE RISK

CURRENT

HATARI YA KUJIUA

KWA SASA

LOW

HATARI NDOGO

MODERATE

HATARI YA KATI

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

C4 au C5 au (C3 + C6) = NDIYO : HATARI KUBWA

HIGH

HATARI KUBWA

D. (HYPO) MANIC EPISODE
TUKIO LA MANIA (MANIA NDOGO)

D1 a	Have you **ever** had a period of time when you were feeling "up" or "high" or so full of energy or full of yourself that you got into trouble, or that other people thought you were not your usual self ? (Do not consider times when you were intoxicated on drugs or alcohol) IF PATIENT IS PUZZLED OR UNCLEAR ABOUT WHAT YOU MEAN BY "UP" OR "HIGH", CLARIFY AS FOLLOW : By "up" or "high" I mean : having elated mood, increased energy, needing less sleep, having rapid thoughts, being full of ideas, having an increase in productivity, creativity, motivation or impulsive behavior. Je, ulishawahi kwa kipindi Fulani kujisikia una hali ya juu, au umejawa na nguvu au umesongwa kiasi cha kupatashida, au kwamba watu kukudhania kuwa sio mtu wa kawaida? (usichukulie muda ambao ulikuwa umedhurika kwa madawa au pombe) KAMA MGONJWA ANAONEKANA KUTOELEWA MAANA YA "HALI YA JUU", FAFANUA KAMA IFUATAVYO : Hali ya juu ina maana ya kuwa na hali ya furaha; kuhitaji usingizi mchache;kuwa na fikra za haraka; kusongwa na mawazo; kuongezeka katika tija, ubunifu, motisha au tabia ya kuamua ghafla	NO HAPANA	YES NDIYO	1 1
	IF YES : KAMA JIBU NI NDIYO :			
b	Are you currently feeling "up" or "high" or full of energy ? Je, sasa hivi unajisikia kuwa na hali ya juu au kujawa na nguvu?	NO HAPANA	YES NDIYO	2 2
D2 a	Have you ever been persistently irritable, for several days, so that you had arguments or verbal or physical fights, or shouted at people outside your family ? Have you or others noticed that you have been more irritable or over reacted, compared to other people, even in situations that you felt were justified ? (Do not consider times when you were intoxicated on drugs or alcohol) Je, umeshawahi kuwa mwenye kuudhika upesi kwa muda mrefu, kwa			

	→ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
	siku nyingi, kiasi kwamba ukawa na mabishano, au mapigano kwa maneno au vitendo, au kuwapigia kelele watu wasiokuwa wa familia yako? IF YES : KAMA JIBU NI NDIYO :	NO	YES	3
b	Are you currently feeling persistently irritable ?	NO	YES	4
	Je, kwa sasa unajisikia kuwa mwepesi wa kuudhika kwa muda mrefu?	HAPANA	NDIYO	4
		→		
	ARE **D1a** OR **D2a** CODED **YES** ?	NO	YES	
		→		
	JE, KIPENGELE **D1a** AU **D2a** KIMEJIBIWA **NDIYO?**	HAPANA	NDIYO	

D3 IF D1b OR D2b = YES : EXPLORE ONLY **CURRENT** EPISODE

IF D1b AND D2b = NO : EXPLORE **THE MOST SYMPTOMATIC** PAST EPISODE

KAMA D1B AU D2B = NDIYO: CHUNGUZA TUKIO **LA SASA** TU

KAMAD1B NA D2B = HAPANA: CHUNGUZA TUKIO LILILOPITA AMBALO LILIKUWA NA **DALILI NYINGI ZAIDI**

During the time(s) when you felt "high", full of energy and/or irritable did you :
Kwa muda ambao ulijisikia hali ya juu, kujawa na nguvu, au mwenyekuudhika upesi, je :

a	Feel that you could do things others couldn't do, or that you were an especially important person ? Ulijisikiakuweza kufanya vitu ambavyo wengine hawawezi au kujiona kuwa mtu pekee muhimu	NO	YES	5
		HAPAN	NDIYO	5

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
		A		
b	Need less sleep (e.g., feel rested after only a few hours sleep) ?	NO	YES	6
	Ulihitaji usingizi mchache (kwa mfano, kujisikisa mapumziko baada ya muda mdogo tu wa kulala) ?	HAPANA	NDIYO	6
c	Talk too much without stopping, or so fast that people had difficulty understanding ?	NO	YES	7
	Uliongea sana bila kunyamaza, au kwa haraka zaidi kiasi kwamba watu wakapata tabu ya kukuelewa?	HAPANA	NDIYO	7
d	Have thoughts racing?	NO	YES	8
	Umekuwa na mawazo ya harakaharaka	HAPANA	NDIYO	8
e	Become easily distracted so that any little interruption could distract you ?	NO	YES	9
	Ulikuwa mwepesi wa kuvurugwa kiasi kwamba hata kukatizwa kidogo kunakuvuruga?	HAPANA	NDIYO	9
f	Become so active or physically restless that others were worried about you ?	NO	YES	10
	Ulikuwa mashuhuri au kutotulia kiasi kwamba watu wengine wakapata wasiwasi juu yako?	HAPANA	NDIYO	10
g	Want so much to engage in pleasurable activities that you ignored the risks or consequences (e.g., spending sprees, reckless driving, or			

sexual indiscretions) ?

Ulitaka sana kujiingiza katika shughuli za starehe na kutojali hatari zake au matokeo yake(mfano, kufanya shamrashamra , udereva wa kizembe, au ngono bila kujihadhari)?

NO YES 11

HAPANA NDIYO 11

ARE **3** OR MORE **D3** ANSWERS CODED **YES** ➔

OR **4** IF **D1a = NO** (PAST EPISODE) OR **D1b = NO** (CURRENT EPISODE) ? NO YES

JE, VIPENGELE **3** AU ZAIDI VYA **D3** VIMEJIBIWA **NDIYO**

AU VIPENGELE **4**, IKIWA **D1a** = **HAPANA** (TUKIO LILILOPITA) AU **D1b** = **HAPANA** (TUKIO LA SASA) ➔

HAPANA NDIYO

D4 Did these symptoms last at least a week **and** cause significant problems at home, at work, or at school,

or were you hospitalized for these problems?

NO YES 12

Je, dalili hizi zilidumu kwa muda wa angalau wiki moja na kusababisha matatizo makubwa nyumbani, kazini, kijamii, au shuleni, au alilazwa hospitalini kwa ajili ya matatizo haya?

HAPANA NDIYO 12

IF YES TO EITHER, CODE YES

KAMA JIBU NI NDIYO KWA LOLOTE, JAZA NDIYO

IS **D4** CODED **NO** ?

NO	**YES**

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

JE, KIPENGELE **D4** KIMEJIBIWA **HAPANA**?

HAPANA **NDIYO**

HYPOMANIC EPISODE

TUKIO LA MANIA NDOGO

IF YES, SPECIFY IF THE EPISODE EXPLORED IS CURRENT OR PAST

KAMA NDIYO, ELEZA NI TUKIO LA SASA AU LILILOPITA

CURRENT ☐

KWA SASA ☐

PAST ☐

LILILOPITA ☐

IS **D4** CODED **YES** ?

NO **YES**

JE, KIPENGELE **D4** KIMEJIBIWA **NDIYO**?

HAPANA **NDIYO**

MANIC EPISODE

TUKIO LA MANIA

IF YES, SPECIFY IF THE EPISODE EXPLORED IS CURRENT OR PAST

KAMA NDIYO, ELEZA NI TUKIO LA SASA AU LILILOPITA

CURRENT ☐

KWA SASA ☐

PAST ☐

LILILOPITA ☐

PANIC DISORDER

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

UGONJWA WA HOFU KUBWA

E1	Have you, on more than one occasion, had spells or attacks when you suddenly felt anxious, frightened, uncomfortable or uneasy, even in situations where most people would not feel that way ? Did the spells peak within 10 minutes ? Je, kwa mara zaidi ya moja, umekuwa na vipindi vya kujisikia au kupatwa na wasiwasi wa ghafla, hofu, kutotulia au mashaka, hata katika mazingira ambayo watu wengi hawajisikii hivyo? Je, mshituko huo uliisha ndani ya dakika kumi? CODE YES ONLY IF THE SPELLS PEAK WITHIN 10 MINUTES JAZA NDIYO IKIWA TU MSHITUKO HUO ULIISHA NDANI YA DAKIKA KUMI	NO	YES	1
		HAPANA	NDIYO	1
	IF **E1 = NO**, CIRCLE NO IN E5 AND SKIP TO F1 KAMA **E1 = HAPANA**, JAZA HAPANA KATIKA **E5** NA NENDA KIPENGELE **F1**			
E2	At any time in the past, did any of those spells or attacks come on unexpectedly or spontaneously, or occur in an unpredictable or unprovoked manner ? Katika wakati wowote uliopita, je, vipindi hivi au mishituko hiyo ilikuja bila kutegemea au kutokea katika namna isiyobashirika au kuchochewa?	NO	YES	2
		HAPANA	NDIYO	2
	IF **E2 = NO**, CIRCLE NO IN E5 AND SKIP TO F1 KAMA **E2 = HAPANA**, JAZA HAPANA KATIKA **E5** NA NENDA KIPENGELE **F1**			
E3	Have you ever had one such attack followed by a month or more of persistent fear of having another attack, or worries about the consequences of the attack ?			

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
	Je, ulishawahi kupata tukio moja kama hilo lililofuatiwa na kipindi cha mwezi mmoja au zaidi cha kujisikia hofu ya tukio jingine au woga wa madhara ya tukio hilo?	NO	YES	3
	IF **E3 = NO**, CIRCLE NO IN E5 AND SKIP TO F1 KAMA **E3 = HAPANA**, ZUNGUSHIA HAPANA NA NENDA KIPENGELE **F1**	HAPANA	NDIYO	3
E4	**During the worst spell that you can remember :** **Katika kipindi kibaya zaidi ambacho unakumbuka :**			
a	Did you have skipping, racing or pounding of your heart ?	NO	YES	4
	Je, moyo wako ulidundadunda, kwenda mbio, au kupiga kwa kasi?	HAPANA	NDIYO	4
b	Did you have sweating or clammy hands ?	NO	YES	5
	Je, ulitokwa na majasho au mikono kuwa ya baridi?	HAPANA	NDIYO	5
c	Were you trembling or shaking ?	NO	YES	6
	Je, ulitetemeka au kutikisika?	HAPANA	NDIYO	6
d	Did you have shortness of breath or difficulty breathing ?	NO	YES	7
	Je, ulipata kutapia hewa au tabu ya kupumua?	HAPANA	NDIYO	7
e	Did you have a choking sensation or a lump in your throat ?	NO	YES	8
	Je, ulihisi kupaliwa au donge kifuani kwako?	HAPANA	NDIYO	8
f	Did you have chest pain, pressure or discomfort ?	NO	YES	9
	Je, ulipata maumivu ya kifua, shinikizo au usumbufu?	HAPANA	NDIYO	9

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
g	Did you have nausea, stomach problems or sudden diarrhea ?	NO	YES	10
	Je, ulipata kichefuchefu, matatizo ya tumbo au kuharisha kwa ghafla ?	HAPANA	NDIYO	10
h	Did you feel dizzy, unsteady, lightheaded or faint ?	NO	YES	11
	Je, ulijisikia kizunguzungu, kutetereka, kichwa chepesi, au kuzirai ?	HAPANA	NDIYO	11
i	Did things around you feel strange, unreal, detached or unfamiliar, or did you feel outside of or detached from part or all of your body ?	NO	YES	12
	Je, vitu vilivyokuzunguka uliviona ni vya ajabu, sio halisi, upweke au vya kigeni, au je, ulijisikia upo kando ya, au kujitenga kutoka katika sehemu au mwili wako wote ?	HAPANA	NDIYO	12
j	Did you fear that you were losing control or going crazy ?	NO	YES	13
	Je, ulihofia kwamba umeshindwa kujizuia au umepata wazimu ?	HAPANA	NDIYO	13
k	Did you fear that you were dying ?	NO	YES	14
	Je, ulihofia kwamba unakufa ?	HAPANA	NDIYO	14
l	Did you have tingling or numbness in parts of your body ?	NO	YES	15
	Je, ulipatwa na msisimko au ganzi katika sehemu za mwili wako ?	HAPANA	NDIYO	15
m	Did you have hot flashes or chills ?	NO	YES	16
	Je, ulipatwa na wekundu usoni(kuiva uso) u mzizimo wa baridi ?	HAPANA	NDIYO	16
E5	ARE **4** OR MORE **E4** ANSWERS CODED **YES** ?	NO	YES	
	JE, VIPENGELE **4** AU ZAIDI VYA **E4** VIMEJIBIWA **NDIYO** ?	HAPANA	NDIY	

O

IF **E5 = NO**, SKIP TO E7

KAMA **E5 = HAPANA**, NENDA KIPENGELE E7

Panic Disorder

Life time

Hofu kubwa

Maisha yote

E6 In the past month, did you have such attacks repeatedly (2 or more) followed by persistant fear of having another attack ?

NO YES 17

Katika mwezi mmoja uliopita, ulipatwa na matukio hayo kwa kujirudiarudia (mara 2 au zaidi) kufuatiwa na hofu ya kupata tukio jingine ?

HAPANA NDIYO 17

IF **E6 = YES**, SKIP TO F1

KAMA **E6 = NDIYO**, NENDA **F1**

Panic Disorder

Current

Hofu kubwa

kwa sasa

E7 ARE **1**, **2** OR **3 E4** ANSWERS CODED **YES** ? NO YES 18

Limited Symptom Attacks

Lifetime

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

E. AGORAPHOBIA
WOGA WA NAFASI ZA WAZI

F1	Do you feel anxious or particularly uneasy in places or situations from which escape might be difficult, and where help might not be available in case of panic attack, like being in a crowd, standing in a line (queue), when you are alone away from home or alone at home, or when crossing a bridge, traveling in a bus, train or car ? Je, unajisikia wasiwasi au mashaka katika sehemu au mazingira ambapo unaweza kupata mshituko wa hofu kubwa au dalili zinazofanana na hofu kubwa tulizozizungumza hivi punde, na ambapo msaada unaweza usiwepo, au ambapo kukwepa kunaweza kuwa kugumu: kama kuwa kwenye kundi la watu wengi, kusimama kwenye foleni, ukiwa peke yako mbali na nyumbani, au upo nyumbani peke yako, au ukiwa unavuka daraja, kusafiri ndani ya basi, treni, au gari ?	NO HAPANA	YES NDIYO	19 19

IF **F1 = NO**, CIRCLE NO IN F2

KAMA **F1 = HAPANA**, ZUNGUSHIA HAPANA KATIKA F2

F2	Do you fear these situations so much that you avoid them, or suffer through them, or need a companion to face them ? Je, unahofia sana mazingira haya kiasi cha kujitenga nayo, au kuteseka kwa ajili ya mazingira hayo auunahitaji mwenzi kukabiliana nayo ?	NO HAPANA	YES NDIYO

Agoraphobia

Current

Woga wa nafasi za wazi kwa sasa

IS **F2** (CURRENT AGORAPHOBIA) CODED **NO**

and

IS **E6** (CURRENT PANIC DISORDER) CODED **YES** ?

JE **F2** (WOGA WA NAFASI ZA WAZI KWA SASA)

NO **YES**

PANIC DISORDER

without Agoraphobia
CURRENT

IS **F2** (CURRENT AGORAPHOBIA) CODED **YES**

and

IS **E6** (CURRENT PANIC DISORDER) CODED **YES** ?

NO **YES**

PANIC DISORDER

with Agoraphobia

CURRENT

IS **F2** (CURRENT AGORAPHOBIA) CODED **YES**

and

IS **E5** (PANIC DISORDER LIFETIME) CODED **NO** ?

NO **YES**

AGORAPHOBIA

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

without history of

Panic Disorder

CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

G. SOCIAL PHOBIA

G. WOGA WA MKUSANYIKO WA WATU

G1	In the past month, were you fearful or embarrassed being watched, being the focus of attention, or fearful of being humiliated ? This includes situations like speaking in public, eating in public or with others, writing while someone watches, or being in social situations. Katika mwezi uliopita, je ulipata hofu au shida ukiwa uanaangaliwa, ukiwa mlengwa, au hofu ya kufedheheshwa? Hii ni pamoja na mambo kama kuongea hadharani; kula hadharani au kula na watu, kuandika wakati mtu anakuangalia au kuwa katika mikusanyiko ya watu.	➔ NO	YES	1
G1				
	Is this fear excessive or unreasonable ?	➔		
G2	Je hofu hii ni kubwa mno au yenye kuzidi?	NO	YES	2
G2				
G3	Do you fear these situations so much that you avoid them or suffer through them ? Je unahofia sana mazingira haya kiasi cha kujitenga nayo au kuteseka kwa ajili ya mazingira hayo.	➔ NO	YES	3
G3				
G4	Does this fear disrupt your normal work or social functioning or cause you significant distress ? Je hofu hizi zinavuruga shughuli zako za kawaida au shughuli za kijamii au zinakusababishia shida kubwa.	NO	YES	4
G4				

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

IS **G4** CODED **YES** ?

Je kipengele G4 kimejibiwa ndiyo?

NO **YES**

SOCIAL PHOBIA

CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

H. OBSESSIVE-COMPULSIVE DISORDER

H. SHAUKU LAZIMISHO

H1	In the past month, have you been bothered by recurrent thoughts, impulses or images that were unwanted, distasteful, inappropriate, intrusive or distressing ? (e.g., the idea that you were dirty, contaminated or had germs, **or** fear of contaminating others, **or** fear of harming someone even though you didn't want to, **or** fearing you would act on some impulse, **or** fear or superstitions that you would be responsible for things going wrong, **or** obsessions with sexual thoughts, images or impulses, **or** hoarding, collecting, **or** religious obsessions.) DO NOT INCLUDE SIMPLY EXCESSIVE WORRIES ABOUT REAL LIFE PROBLEMS. DO NOT INCLUDE OBSESSIONS DIRECTLY RELATED TO EATING DISORDERS, SEXUAL DEVIATIONS, PATHOLOGICAL GAMBLING, OR ALCOHOL OR DRUG ABUSE BECAUSE THE PATIENT MAY DERIVE PLEASURE FROM THE ACTIVITY AND MAY WANT TO RESIST IT ONLY BECAUSE OF ITS NEGATIVE CONSEQUENCES.	NO	YES	1
H1	Katika mwezi ulioputa, je ulishawahi kukerwa na mawazo yenye kujirudiarudia, misukumo, au fikra ambazo hazihitajiki, za maudhi, zisizostahili, zenye kuingilia, au zenye kuleta shida? (mf: mawazo ya kwamba umchafu, umechafuliwa na vijidudu, au hofu ya kuwachafua wengine, au hofu ya kumdhuru mtu hata kama hukutaka kufanya hivyo, au kuhofia kutenda kwa msukumo, au hofu au imani za kichawi kwamba ungewajibika kwa mambo mabaya, au shauku yenye mawazo ya ngono, fikra au misukumo,au shauku ya kuhodhi, kukusanya au ya kidini). (Usichanganye na wasiwasi juu ya matatizo halisi ya maisha, usichanganye na shauku zinazoendana moja kwa moja na magonjwa ya kula chakula, tabia za uasherati, kamari, au pombe au madawa ya kulevya kwa sababu, mgonjwa anaweza kupata starehe kutokana na tendo hilo na kutaka kujizuia kwa sababu tu ya matokeo hasi ya jambo			

	hilo.			
	IF **H1 = NO**, SKIP TO H4			
H2	Did they keep coming back into your mind even when you tried to ignore or get rid of them ? IF **H2 = NO**, SKIP TO H4	NO	YES	2
H2	JE, yanaendelea kukurudia ndani ya mawazo yako hata wakati unapojaribu kuyadharau au kujaondoa?			
H3	Do you think that these obsessions are the product of your own mind and that they are not imposed from the outside ?	NO	YES	3
H3	Je, unadhani kwamba shauku hizi zinatokana na mawazo yako mwenyewe na kwamba hazijalazimishwa kutoka nje?			
H4	In the past month, did you do something repeatedly without being able to resist doing it, like washing or cleaning excessively, counting or checking things over and over, or repeating, collecting, arranging things, or other superstitious rituals ?	NO	YES	4
H4	Katika mwezi uliopita, je ulifanya kitu kwa kurudiarudia bila kuwa na uwezo wa kujizuia kufanya hivyo, kama vile kuosha au kusafisha sana, kuhesabu, kukagua vitu mara kwa mara, au kurudia, kukusanya, kupanga vitu, au matambiko mangine ya kishirikina.			

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

ARE **H3** OR **H4** CODED **YES** ? NO YES ➔

JE KIPENDELE **H3** AU **H4** KIMEJIBIWA **NDIYO?**

H5 Did you recognize that either these obsessive thoughts and / or these compulsive behaviors you can not resist doing them, were excessive or unreasonable ? NO YES 5

H5 Je ulitambua kwamba kujiwa na mawazo haya au hizi tabia zisizodhibitika zimekuwa ni nyingi mno au zimezidi?

H6 Did these obsessive thoughts and / or compulsive behaviors significantly interfere with your normal routine, occupational functioning, usual social activities, or relationships, or did they take more than one hour a day ? NO YES 6

H6 Je kujawa na mawazo haya na/au tabia zisizodhibitika kwa kiasi kikubwa kunaingilia zako za kawaida, shughuli za kikazi, kazi za kawaida za kijamii, au mahusiano, au yamechukua zaidi ya saa nzima kwa siku?

IS **H6** CODED **YES** ?

NO **YES**

OBSESSIVE-COMPULSIVE DISORDER

CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

I. POSTTRAUMATIC STRESS DISORDER (optional)

I. UGONGWA WA MSONGO BAADA YA MATUKIO MABAYA (Hiari)

I1	Have you ever experienced or witnessed or had to deal with an extremely traumatic event that included actual or threatened death or serious injury to you or someone else?	➔ NO	YES	1
I1	Je, umewahi kupata au kushuhudia au kushughulika na matukio mabaya ikiwepo kifo au tishio la kifo au ajali mbaya kwako au mtu mwingine? EX OF TRAUMATIC EVENTS: SERIOUS ACCIDENT, SEXUAL OR PHYSICAL ASSAULT, A TERRORIST ATTACK, BEING HELD HOSTAGE, KIDNAPPING, HOLD-UP, FIRE, DISCOVERNG A BODY, UNEXPECTED DEATH, WAR, NATURAL DISASTER...			
I2	During the past month, have you re-experienced the event in a distressing way (i.e., dreams, intense recollections, flashbacks or physical reactions)?	➔ NO	YES	2
I2	Kwa mwezi uliopita je umewahi kupata tena tukio hilo katika namna ya mashaka (Kama vile, ndoto, mkusanyiko mkali, kumbukumbu za ghafla, au kujibu kwa matendo)?			

I3 **In the past month :**

I3 **Katika mwezi uliopita:**

a	Have you avoided thinking about the event, or have you avoided things that remind you of the event? Je, umewahi kujizuia kufikiria juu ya tukio hilo, au kujiepusha na vitu vinavyokukumbusha tukio hilo?	NO	YES	3

a

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
b b	Have you had trouble recalling some important part of what happened? Je, umepata tabu ya kukumbuka baadhi ya sehemu muhimu juu ya kilichotokea?	NO	YES	4
c c	Have you become less interested in hobbies or social activities? Je umekuwa na mvuto hafifu kwa mambo uyapendayo au kazi za kijamii?	NO	YES	5
d d	Have you felt detached or estranged from others? Je, ulijisikia umejitenga au kutenganisha na wengine?	NO	YES	6
e e	Have you noticed that your feelings are numbed? Je, ulitambua kwamba mawazo yako ni mazito?	NO	YES	7
f f	Have you felt that your life would be shortened because of this trauma? Je, ulijisikia kwamba maisha yako yangekuwa mafupi kutokana na tukio hili?	NO	YES	8
		➔		
	ARE **3** OR MORE **I3** ANSWERS CODED **YES**? JE, VIPENGELE **VITATU** AU ZAIDI VYA **I3** VIMEJIBIWA NDIYO?	NO	YES	
I4	**In the past month :**			
14	**Katika mwezi uliopita:**			
a a	Have you had difficulty sleeping? Je ulipata tabu ya usingizi?	NO	YES	9
b b	Were you especially irritable or did you have outbursts of anger? Je ulikuwa mwenye kuudhika upesi, au ulipatwa na milipuko ya hasira?	NO	YES	10

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

c	Have you had difficulty concentrating? Je, umepata tabu ya kuwa makini? c	NO	YES	11
d	Were you nervous or constantly on your guard? Je, ulikuwa na wahaka/wasiwasi au muda wote kujilinda? d	NO	YES	12
e	Were you easily startled? Je, ulikuwa mwepesi wa kushtushwa? e	NO	YES	13
		➔		
	ARE **2** OR MORE **I4** ANSWERS CODED **YES**? JE VIPENGELE **2** AU ZAIDI YA **I4** VIMEJIBIWA **NDIYO**?	NO	YES	
I5	During the past month, have these problems significantly interfered with your work or social activities, or caused significant distress? Katika mwezi uliopita, je matatizo haya kwa kiasi kikubwa yalivuruga utendaji wa kazi yako au shughuli za kijamii au kusababisha mashaka makubwa?	NO	YES	14

IS **I5** CODED **YES**?

JE I5 IMEJIBIWA NDIYO?

NO **YES**

POSTTRAUMATIC STRESS DISORDER

CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

J. ALCOHOL ABUSE AND DEPENDENCE

J. MATUMIZI MABAYA NA KUTAWALIWA NA POMBE

J1	In the past 12 months, have you had 3 or more alcoholic drinks within a 3 hour period on 3 or more occasions?		➔ NO	YES	1
J1	Katika miezi 12 iliyopita, ulishawahi kuwa na vinywaji vitatu au zaidi vya pombe ndani ya kipindi cha masaa matatu katika matukio m atatu au zaidi/				
J2	**In the past 12 months :**				
	Did you need to drink more in order to get the same effect that you did when you first started drinking?		NO	YES	2
J2	**Katika miezi 12 iliyopita:**				
a	Je, ulihitaji kunywa zaidi ili upate matokeo sawa nay ale uliyokunywa mara ya kwanza?				
b	When you cut down on drinking did your hands shake, did you sweat, or feel agitated ? Or, did you drink to avoid these symptoms or to avoid being hangover, e.g., "the shakes", sweating or agitation ?		NO	YES	3
b	Je, wakati ulipoacha kunywa mikono yako ilitetemeka ulitokwa na majasho, au kujisikia wasiwasi? Je, ulikunywa ili kuondoa dalili hizi au kuepuka kuwa mchovu, mfano mtetemeko, kutokwa majasho au wasiwasi?				

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

IF YES TO EITHER, CODE YES

KAMA NI NDIYO KWA CHOCHOTE, JIBU NDIYO

c	During the times when you drank alcohol, did you end up drinking more than you planned when you started ?	NO	YES	4
c	Wakati ambapo umelewa pombe, je uliishia kunywa zaidi kuliko ulivyopanga mwanzoni?			
d	Have you tried to reduce or stop drinking alcohol but failed ?	NO	YES	5
d	Je ulijaribu kupunguza au kuacha ulevi ikashindikana?			
e	On the days that you drank, did you spend substantial time in obtaining alcohol, drinking, or in recovering from the effects of alcohol ?	NO	YES	6
e	Katika siku ambazo umelewa, je ulipoteza muda mwingi kupata pombe, kunywa au kupata nafuu kutoka katika athari za pombe?			
f	Did you spend less time working, enjoying hobbies, or being with others because of your drinking ?	NO	YES	7
f	Je ulitumia muda mchache kufanya kazi kufurahia uvipendavyo au kuwa na wenzako kwa sababu ya ulevi wako?			

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

g Have you continued to drink even though you knew that the drinking caused you health or mental problems ? NO YES 8

g Je uliendelea kulewa japo kuwa ulifahamu kuwa ulevi ulikusababishia matatizo ya kiafya na kiakili?

ARE **3** OR MORE **J2** ANSWERS CODED **YES** ?

JE VIPENGELE **VITATU** AU ZAIDI VYA **J2** VIMEJIBIWA NDIYO?

NO **YES**

ALCOHOL DEPENDENCE

CURRENT

➔

DOES THE PATIENT CODES POSITIVES FOR ALCOHOL DEPENDENCE ? NO YES

J3 **In the past 12 months :**

J3 **Katika miezi 12 iliyopita:**

a Have you been intoxicated, high, or hangover more than once when you had other responsibilities at school, at work, or at home ? Did this cause any problems ?

NO YES 9

a Je, umewahi kurukwa akili, kuwa na hali ya juu, au kuwa na uchovu wa pombe zaidi ya mara moja wakati ambapo ulikuwa na majukumu mengine shuleni, kazini au nyumbani? Je hili litaleta matatizo yeyote?

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

CODE YES ONLY IF THIS CAUSED PROBLEMS

(JIBU NDIYO IKIWA TU HILI LILILETA MATATIZO)

b	Were you intoxicated in any situation where you were physically at risk, e.g., driving a car, riding a motor bike, using machinery, boating, etc. ?	NO	YES	10
b	Je, ulirukwa akili katika mazingira yeyote ambapo ulikuwa hatarini mf. Kuendesha gari, kuendesha pikipiki, kutumia mashine, kusafiri kwa mashua, etc.			

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

c Did you have any legal problems because of your drinking, e.g., an arrest or disorderly conduct ?

NO YES 11

c Je ulipata matatizo yeyote ya kisheria kwa sababu ya ulevi wakomfa. Kutiwa mbaroni au kufanya vurugu?

d Did you continue to drink even though your drinking caused problems with your family or other people ?

NO YES 12

d Je, uliendelea kulewa japokuwa ulevi wako ulisababisha matatizo kwa familia yako au watu wengine?

ARE **1** OR MORE **J3** ANSWERS CODED **YES** ?

JE KIPENGELE **KIMOJA** AU ZAIDI CHA **J3** KIMEJIBIWA NDIYO?

NO **YES**

ALCOHOL ABUSE CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

CARD OF SUBSTANCES

AMPHETAMINE
CANNABIS
COCAINE
CODEINE
CRACK
DICONAL
ECSTASY
ETHER
FREEBASE
GASOLINE
GLUE
GRASS
HASHISH
HEROIN
LSD
MARIJUANA
MESCALINE
METHADONE
MORPHINE
OPIUM
PALFIUM
PCP
RITALIN
TEMGESIC
THC
TOLUENE
TRICHLORETHYLENE

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

K. NON-ALCOHOL PSYCHOACTIVE SUBSTANCE USE DISORDERS

UGONJWA WA MATUMIZI YA MADAWA YA KULEVYA AMBAYO SI POMBE

K1 a	Now, I am going to show you (SHOW THE CARD OF SUBSTANCES) / to read to you, a list (READ THE LIST BELOW) of street drugs or medicines. In the past 12 months, did you take any of these drugs, more than once, to get high, to feel better or to change your mood? Sasa ninakuonyesha (ONYESHA KADI YA MADAWA) / ninakusomea orodha ya madawa ya mitaani. Katika miezi 12 iliyopita, je ulitumia dawa yeyote katika hizi zaidi ya mara moja, ili uwe na hali ya juu, kujisikia mbora zaidi, au kubadilisha hali yako?	➔ NO	YES	

CIRCLE EACH DRUG TAKEN :

Stimulants: amphetamines, « speed », crystal meth, « rush », Dexedrine, Ritalin, diet pills.

Cocaine: snorting, IV, freebase, crack, « speedball ».

Narcotics: heroin, morphine, dilaudid, opium, demerol, methadone, codeine, percodan, darvon.

Hallucinogens: LSD (« acid »), mescaline, peyote, PCP (« angel dust », « peace pill »), psilocybin, STP, « mushrooms », ecstasy, MDA, or MDMA.

Inhalants: « glue », ethyl chloride, nitrous oxide, (« laughing gas »), amyl or butyl nitrate (« poppers »).

Marijuana: hashish (« hash »), THC, « pot », « grass », « weed », « reefer ».

Tranquilizers: quaalude, Seconal (« reds »), Valium, Xanax, Librium, Ativan, Dalmane, Halcion, barbiturates, Miltown.

Miscellaneous: steroids, nonprescription sleep or diet pills. Any others ?

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

SPECIFY MOST USED DRUG(S) :

_____

ZUNGUSHIA KILA DAWA ULIYOTUMIA:

Vichangamsho:Amphetamini

Cokein:

Nakotiks:

Hallucinogens:

Inhalants:

Marijuana:

Tranquilizers:

Nyinginezo:

ELEZA DAWA / MADAWA UTUMIAYO ZAIDI:_____

b SPECIFY WHICH WILL BE EXPLORED IN CRITERIA BELOW **:**

- IF CONCURRENT OR SEQUENTIAL POLYSUBSTANCE USE :
  EACH DRUG (OR DRUG CLASS) USED INDIVIDUALLY ☐

  MOST USED DRUG (OR DRUG CLASS) ONLY ☐

- IF ONE DRUG (OR DRUG CLASS) USED :
  SINGLE DRUG (OR DRUG CLASS) ONLY ☐

ELEZA NI DAWA IPI IPO NDANI YA VIGEZO HAPA CHINI:

b. KAMA NI MATUMIZI YA PAMOJA AU YENYE KUFUATANA YA DAWA ZAIDI YA MOJA:

- KILA KUNDI LA DAWA KUTUMIKA PEKE YAKE ☐

- KUNDI LA DAWA LINALOTUMIKA ZAIDI TU ☐

- NI DAWA MOJA TU / KUNDI LA DAWA IMETUMIKA

K2 **Considering your use of [NAME THE SELECTED DRUG / DRUG CLASS] in the past 12 months :**

Fikiria matumizi yako ya madawa (TAJA JINA LA DAWA / KUNDI LA DAWA LILILOCHAGULIWA), katika miezi 12 iliyopita:

a Have you found that you needed to use more of [NAME OF SELECTED DRUG /

DRUG CLASS] to get the same effect that you did when you first started taking it ?

Je, uliona kwamba unahitaji kutumia zaidi (Jina la dawa au kundi la dawa lililochaguliwa) ili kupata athari sawa na ile ulipotumia mara ya kwanza?

NO YES 1

B When you reduced or stopped using [NAME OF SELECTED DRUG / DRUG CLASS] did you have withdrawal symptoms (aches, shaking, fever, weakness, diarrhea, nausea, sweating, heart pounding, difficulty sleeping, or feeling agitated, anxious, irritable or depressed) ?

Or did you use any drug(s) to keep yourself from getting sick (WITHDRAWAL SYMPTOMS) or so that you would feel better ?

IF **YES** TO EITHER, CODE **YES**

Wakati ulipopunguza au kutotumia (JINA LA DAWA / KUNDI LA DAWA LILILOCHAGULIWA) Je, ulipatwa na dalili zinazotokana na

NO YES 2

kuacha madawa? (Maumivu, kutetemeka, homa, udhaifu, kuharisha, kichefuchefu, kutokwa jacho, moyo kudunda, tabu ya usingizi, kujisikia wasiwasi, dukuduku, mwenye kuudhika upesi, au mwenye huzuni). Je ulitumia dawa/madawa yeyote ili kukufanya usiumwe (dalili za kuacha dawa) au kukufanya ujisikie vizuri zaidi?

IKIWA JIBU NI **NDIYO** KWA SWALI LOLOTE, JAZA **NDIYO**

c Have you often found that when you used [NAME OF SELECTED DRUG / DRUG CLASS], you ended up taking more than you thought you would?

Je, mara kwa mara ulijiona kwamba wakati unatumia (JINA LA DAWA/ KUNDI LA DAWA LILILOCHAGULIWA), uliishia kutumia nyingi zaidi kuliko uwezo wako? NO YES 3

d Have you tried to reduce or stop taking [NAME OF SELECTED DRUG / DRUG CLASS] but failed? NO YES 4

Je, ulijaribu kupunguza/kuacha kutumia (JINA LA DAWA/ KUNDI LA DAWA LILILOCHAGULIWA) lakini ukashindwa?

e On the days that you used [NAME OF SELECTED DRUG / DRUG CLASS], did you spend substantial time (>2 hours), obtaining, using or recovering from the effects, or thinking about it ?

Katika siku ambazo ulitumia (JINA LA DAWA/ KUNDI LA DAWA LILILOCHAGULIWA)Je, ulipoteza muda mwingi (> masaa 2) kupata, kutumia au kupata nafuu kutoka katika madawa au kufikiria juu ya madawa?

NO YES 5

f Did you spend less time working, enjoying hobbies, or being with family or friends, because of your drug use ?

Je, ulitumia muda mchache kufanya kazi, kufurahia uvipendavyo, au kuwa na familia yako au marafiki kwa sababu ya kutumia kwako madawa?

NO YES 6

g Have you continued to use [NAME OF SELECTED DRUG / DRUG CLASS] even though it caused you health or mental problems?

Je, uliendelea kutumia (JINA LA DAWA/ KUNDI LA DAWA LILILOCHAGULIWA), japokuwa ilikusababishia matatizo ya kiafya na kiakili?

NO YES 7

ARE **3** OR MORE **K2** ANSWERS CODED **YES** ?

SPECIFY DRUG(S) :

_____

JE VIPENGELE **3** AU ZAIDI VYA **K2** VIMEJIBIWA **NDIYO?**

TAJA DAWA /

NO	**YES**
DRUG(S) DEPENDENCE CURRENT	

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

MADAWA:_____

➔

DOES PATIENT CODES POSITIVE FOR DRUG DEPENDENCE? NO YES

K3 **In the past 12 months :**

Fikiria matumizi yako ya madawa (Jina la kundi la dawa lililochaguliwa)

Katika kipindi cha miezi 12 iliyopita:

a Have you been intoxicated, high, or hangover from [NAME OF SELECTED DRUG / DRUG CLASS], more than once when you had other responsibilities at school, at work, or at home? Did this cause any problem? (CODE YES ONLY IF THIS CAUSED PROBLEMS)

Je, umewahi kurukwa akili, kuwa na hali ya juu, au kuwa na uchovu wa dawa (JINA LA DAWA/ KUNDI LA DAWA LILILOCHAGULIWA), zaidi ya mara moja, wakati ambapo ulikuwa na majukumu mengine shuleni, kazini au nyumbani? Je hili lilileta matatizo yeyote?

(JAZA NDIYO IKIWA TU HILI LILILETA MATATIZO)

NO YES 8

b Have you been high or intoxicated from [NAME OF SELECTED DRUG / DRUG CLASS] in any situation where you were physically at risk (e.g., driving a car, or a motorbike, using machinery, boating, etc.)?

Je, umewahi kujisikia na hali ya juu au kurukwa akili kutokana na (JINA LA DAWA/ KUNDI LA DAWA LILILOCHAGULIWA) katika mazingira yeyote ambapo ulikuwa hatarini (mfano, kuendesha gari, kuendesha pikipiki, kutumia machine, kusafiri kwa mashua, nk).

NO YES 9

c Did you have any legal problems because of your [NAME OF SELECTED DRUG / DRUG CLASS] use, e.g., an arrest or disorderly conduct ?

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

Je, ulipata matatizo yeyote ya kisheria kwa sababu ya matumizi ya madawa mf. Kutiwa mbaroni au kufanya vurugu.

NO YES 10

d Did you continue to use [NAME OF SELECTED DRUG / DRUG CLASS] even though it caused problems with your family or other people ?

Je uliendelea kutumia (JINA LA DAWA/ KUNDI LA DAWA LILILOCHAGULIWA), japokuwa ilisababisha matatizo kwa familia yako au watu wengine

NO YES 11

ARE **1** OR MORE **K3** ANSWERS CODED **YES** ?

SPECIFY DRUG(S) :

_____

JE, KIPENGELE **KIMOJA** AU ZAIDI CHA **K3** KIMEJIBIWA **NDIYO?**

TAJA DAWA/MADAWA

:_____

NO	**YES**
DRUG(S) ABUSE CURRENT	
NDIYO	
HAPANA	
MATUMIZI YA MADAWA KWA SASA	

L. PSYCHOTIC DISORDERS
L. MAGONJWA YA SAIKOSIS

ASK FOR AN EXAMPLE OF EACH QUESTION ANSWERED POSITIVELY. CODE YES ONLY IF THE EXAMPLES CLEARLY SHOW A DISTORTION OF THOUGHT OR OF PERCEPTION OR IF THEY ARE NOT CULTURALLY APPROPRIATE.

BEFORE CODING, INVESTIGATE WHETHER DELUSIONS QUALIFY AS « BIZARRE ».

DELUSIONS ARE BIZARRE IF : CLEARLY IMPLAUSIBLE, ABSURD, NOT UNDERSTANDABLE, AND CANNOT DERIVE FROM ORDINARY LIFE EXPERIENCE.

HALLUCINATIONS ARE RATED BIZARRE IF : A VOICE COMMENTS ON THE PERSON'S THOUGHTS OR BEHAVIOR, OR WHEN TWO OR MORE VOICES ARE CONVERSING WITH EACH OTHER.

OMBA MFANO KWA KILA SWALI LINAJIBIWA NDIYO. JAZA NDIO IWAPO TU MIFANO INAONYESHA WAZI MABADILIKO YA MAWAZO AU UTAMBUZI AU KAMA HAIHUSIANI NA MILA NA DESTURI KABLA YA KUJAZA CHUNGUZA IWAPO IMANI ZA UWONGO ZINA SIFA ZA KUWA SI ZA KAWAIDA.

IMANI POTOFU AMBAZO "SI ZA KAWAIDA" KAMA: ISIYOWEZEKANA KUWA KWELI, UPUUZI, ISIYOELEWEKA, NA ISIYOTOKANA NA MAISHA YA KAWAIDA.

HISIA POTOFU AMBAZO "SI ZA KAWAIDA" NI KAMA: SAUTI KUELEZEA JUU YA MAWAZO YA MTU AU TABIA, AU WAKATI SAUTI 2 AU ZAIDI ZINAZUNGUMZA ZENYEWE.

Now I'm going to ask you about unusual experiences that some

individuals may experience.

Sasa ninakuuliza kuhusu matukio yasiyo ya kawaida ambayo watu wanapata.

L1a	Have you ever believed that people were spying on you, or that someone was plotting against you, or trying to hurt you? Je, umewahi kuamini kwamba watu wanakupeleleza, au kwamba mtu anapanga njama juu yako, au kujaribu kukudhuru? KUMBUKA: Ulizia mifano ili kupata uhalisia.	NO	YES	BIZARRE YES	1
b	**IF YES**: Do you currently believe these things ? **KAMA NDIYO:** Je kwa sasa unaamini mambo haya?	NO	YES	YES ➔ **L6a**	2
L2a	Have you ever believed that someone was reading your mind or could hear your thoughts or that you could actually read or hear what another person was thinking? Je, umewahi kuamini kwamba mtu alikuwa anasoma mawazo yako au kuweza kusikia mawazo yako, au kwamba wewe kuweza kusoma mawazo ya mtumwingine au kusikia kile anachowaza mtu mwingine?	NO		YES	3
b	**IF YES** : Do you currently believe these things ? **KAMA NDIYO:** Je kwa sasa unaamini mambo haya?	NO		YES ➔ **L6a**	4
L3a	Have you ever believed that someone or some force outside of yourself put thoughts in your mind that were not your own, or made you act in a way that was not your usual self ? Have you ever felt that you were possessed? Je , umewahi kuamini kwamba mtu au nguvu Fulani kutoka nje zimeweka mawazo ndani yako na kwamba umekuwa siyo wewe mwenyewe, au imekufanya utende matendo ambapo haikuwa kawaida yako? Je, umewahi kujisikia kama kwamba umemilikiwa? ***TABIBU***: ULIZIA MIFANO NA UONDOE YEYOTE ISIYOHUSIANA NA KURUKWA AKILI	NO		YES	5

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE				
b	**IF YES**: Do you currently believe these things ? **KAMA NDIYO:** Je, kwa sasa unaamini mambo haya?	NO		YES ➔ **L6a**	6
L4a	**Have you ever believed that you were being sent special messages through the TV, radio or newspaper, or that a person you did not personally know was particularly interested in you ?** **Je, umewahi kuamini kwamba umekuwa ukipokea ujumbe maalum kupitia TV, redio, au magazeti, au kwamba mtu usiyemjua akawa amevutiwa na wewe?**	NO	YES	YES	7
b	**IF YES** : Do you currently believe these things ? **KAMA NDIYO:** Je, kwa sasa unaamini mambo haya?	NO	YES	YES ➔ **L6a**	8
L5a	Have your relatives or friends ever considered any of your beliefs strange or out of reality? ANY DELUSIONAL IDEAS NOT EXPLORED IN QUESTIONS L1 TO L4, E.G., OF GRANDIOSITY, RUIN, GUILT, HYPOCONDRIASIS,... Je, ndugu zako au marafiki walishawahi kuona kwamba imani zako ni za ajabu au si za kawaida? Tafadhali, naomba mifano. ***MSAILI:*** Jaza ndiyo ikiwa tu mifano inaonyesha wazi kuwa ni imani za uwongo ambazo hazikuelezwa katika maswali L1 mpaka L4, mfano, za kujifaharisha, za unyong'onyevu, za maangamizi, kuwa na hatia, n.k.	NO	YES	YES	9
b	**IF YES**: Do they currently consider your beliefs strange ? **KAMA NDIYO:** Je, kwa sasa wanaona imani zako ni za ajabu?	NO	YES	YES	10

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE				
L6a	Have you ever heard things other people couldn't hear, such as voices? HALLUCINATIONS ARE CODED « BIZARRE » ONLY IF PATIENT ANSWERS YES TO THE FOLLOWING : Did you hear a voice commenting on your thoughts or behavior, or did you hear two or more voices talking to each other? Je umewahi kusikia mambo ambayo wengine hawasikii, kama vile sauti? HISIA POTOFU ZINAKUWA "SI ZA KAWAIDA" IKIWA TU MGONJWA ANAJIBU NDIYO KATIKA SWALI LIFUATALO: Je ulisikia sauti ikielezea mawazo yako au tabia au kusikia sauti mbili au zaidi zikizungumza zenyewe?	NO	YES	YES	11
b	**IF YES**: Have you heard these things in the past month ? **KAMA NDIYO:** Je, umesikia vitu hivi ndani ya mwezi 1 uliopita?	NO	YES	YES **➔ L8b**	12
L7a	Have you ever had visions when you were awake or have you ever seen things other people couldn't see? CODE YES ONLY IF THE VISIONS ARE CULTURALLY INAPPROPRIATE. Je, umewahi kuwa na ndoto wakati yu macho au kuona vitu ambapo watu wengine hawavioni? **TABIBU:** chunguza ili kujua kama havihusiani na mambo ya kimila na desturi?	NO	YES		13
B	**IF YES** : Have you seen these things in the past month? : <u>INTERVIEWER'S JUDGMENT :</u> **KAMA NDIYO:** Je umeviona vitu hivi katika mwezi mmoja uliopita? UAMUZI WA TABIBU	NO	YES		14
L8 b	IS THE PATIENT CURRENTLY EXHIBITING INCOHERENCE, DISORGANIZED SPEECH, OR MARKED LOOSENING OF ASSOCIATIONS?	NO	YES		`115

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

L8 b JE MGONJWA KWA SASA ANAONYESHA MAMBO YASIYOELEWEKA, MANENO YASIYO NA MPANGILIO, AU MAMBO YASIYOUNGANIKA.

L9 b IS THE PATIENT CURRENTLY EXHIBITING DISORGANIZED OR CATATONIC BEHAVIOR? NO YES 16

L9 b JE KWA SASA MGONJWA ANAONYESHA TABIA ISIYOELEWEKA AU KUZUBAA?

L10 b ARE NEGATIVE SYMPTOMS OF SCHIZOPHRENIA, E.G. SIGNIFICANT AFFECTIVE FLATTENING, POVERTY OF SPEECH (ALOGIA) OR AN INABILITY TO INITIATE OR PERSIST IN GOAL DIRECTED ACTIVITIES (AVOLITION), PROMINENT DURING THE INTERVIEW? NO YES 17

L10 b JE, DALILI HASI ZA SKIZOFRENIA, MFANO KUTODHIHIRISHA HISIA, UPUNGUFU WA MANENO YA KUSEMA (KUTOSEMA) AU KUTOWEZA KUANZISHA AU KUDUMU KATIKA SHUGHULI MAALUM, ZINAONEKANA WAKATI WA USAILI?

L11 FROM **L1 TO L10** :

- ARE **1 OR MORE** « **b** » QUESTIONS CODED **YES BIZARRE?**

OR

- ARE **2** OR MORE « **b** » QUESTIONS CODED **YES** (RATHER THAN YES BIZARRE)?

L11

- JE KIPENDELE **KIMOJA** AU ZAIDI VYA MASWALI **(b)** KIMEJIBIWA **NDIYO SI YA KAWAIDA**?

AU

- JE, VIPENGELE **2** AU ZAIDI VYA MASWALI **(b)** VIMEJIBIWA **NDIYO** (BADALA YA NDIYO SI YA KAWAIDA).

NO **YES**

PSYCHOTIC SYNDROME CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

L12 FROM **L1 TO L7** :

- ARE **1** OR MORE « **a** » QUESTIONS CODED **YES BIZARRE**?

OR

- ARE **2** OR MORE « **a** » QUESTIONS CODED **YES** (RATHER THAN YES BIZARRE**)** ?

(CHECK THAT THE 2 SYMPTOMS OCCURRED DURING THE SAME TIME PERIOD)

OR

- IS **L11** CODED **YES**?

- JE, KIPENGELE **1** AU ZAIDI YA MASWALI **(a)** VIMEPITIWA **NDIYO SI YA KAWAIDA**?

L12 **AU**

- JE, VIPENGELE **2** AU ZAIDI VYA MASWALI **(a)** VIMEJIBIWA **NDIYO** (BADALA YA NDIYO SI YA KAWAIDA)

UAMUZI WA TABIBU

CHUNGUZA KAMA DALILI 2 ZILITOKEA WA KATI MMOJA

AU

- JE, KIPENGELE **L11** KIMEJIBIWA **NDIYO**?

NO **YES**

PSYCHOTIC SYNDROME LIFETIME

L13a IF L12 IS CODED YES OR AT LEAST ONE YES FROM L1 TO L7 :

DOES THE PATIENT CODE POSITIVE FOR EITHER

MAJOR DEPRESSIVE EPISODE (CURRENT OR PAST) ➔

OR MANIC EPISODE (CURRENT OR PAST) ? NO YES

L13a KAMA L12 IMEJIBIWA NDIYO NA ANGALAU NDIYO MOJA KUTOKA L1 MPAKA L7:

JE DALILI HIZO ZIMEJIBIWA NDIYO KWA AIDHA

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

TUKIO LA SONONA, (KWA SASA)

AU TUKIO LA MANIA, (KWA SASA AU MUDA ULIOPITA)?

b You told me earlier that you had period(s) when you felt depressed/ high/ persistently irritable.

Were the beliefs and experiences you just described (SYMPTOMS CODED YES FROM L1 TO L7) restricted exclusively to times when you were feeling depressed / high / irritable?

NO YES 18

Kama L13 imejibiwa ndiyo:

b Uliniambia mwanzoni kwamba kulikuwa na vipindi ambavyo ulijisikia (huzuni/hali ya juu/mwepesi wa kuudhika mara zote).

Je, imani na matukio uliyoyaeleza hivi punde (dalili zimejibiwa ndiyo kutoka L1 mpaka L7).vimekuwepo pale tu ulipojisikia huzuni/hali ya juu/mwenyekuudhika?

IS **L13b** CODED **YES**?

JE, **L13b** IMEJIBIWA **NDIYO**?

NO **YES**

MOOD DISORDER WITH PSYCHOTIC FEATURES

CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

M. ANOREXIA NERVOSA

M. UGONJWA WA TAFSIRI YA MAUMBILE BINAFSI UNAOHUSIANA NA KUTOKULA

M1a	How tall are you ?	|__|__|__|		Ft Ins Cm	
a	Una urefu kiasi gani?				
b	What was your lowest weight in the past 3 months ?	|__|__|__|		Lbs. Kg	
b	Ni uzito upi mdogo kuliko wote katika miezi mitatu iliyopita.				
c	IS PATIENT'S WEIGHT LOWER THAN THE THRESHOLD CORRESPONDING TO HIS / HER HEIGHT ? SEE TABLE BELOW	➔ NO	YES		1
c	JE, UZITO WA MGONJWA NI MDOGO KULIKO KIWANGO KINACHOLINGANA NA UREFU WAKE? (ANGALIA JEDWALI CHINI)				

	In the past 3 months :			
	Katika miezi 3 iliyopita:	➔		
M2	In spite of this low weight, have you tried not to gain weight?	NO	YES	2
M2	Pamoja na uzito huu mdogo, je ulijaribu kutoongeza uzito?			
M3	Have you feared gaining weight or becoming fat, even though you were underweight?	➔ NO	YES	3
M3	Je, ulihofia kuongezeka uzito au kuwa mnene hata kama ulikuwa na uzito mdogo?			
M4a	Have you considered yourself fat or that part of your body was too	NO	YES	4

	➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE			
a	fat? Je ulijiona wewe mwenyewe mnene, au sehemu ya mwili wako nene sana?			
b	Has your body weight or shape greatly influenced how you felt about yourself? Je, uzito wa mwili wako au umbile umeathiri kwa kiasi kikubwa jinsi unavyojiona?	NO	YES	5
c	Have you thought that your current low body weight was normal or excessive? Je, ulifikiria kwamba uzito wako mdogo wa sasa ni kawaida au umezidi?	NO	YES	6
		➔		
M5	ARE **1** OR MORE **M4** ANSWERS CODED **YES** ?	NO	YES	
M5	JE, KIPENGELE **KIMOJA** AU ZAIDI VYA **M4** VIMEJIBIWA **NDIYO?**			
M6	FOR WOMEN ONLY : During the last 3 months, did you miss all your menstrual periods when they were expected to occur (when you were not pregnant) ?	➔ NO	YES	7
M6	Kwa wanawake tu: Katika miezi mitatu iliyopita, Je ulikosa siku zako zote za hedhi pale ambapo ulizitarajia kutokea (wakati hukuwa			

mjamzito)?

FOR WOMEN : ARE **M5** AND **M6** CODED **YES** ?

FOR MEN : IS **M5** CODED **YES** ?

KWA WANAWAKE: JE, **M5** NA **M6** VIMEJIBIWA **NDIYO**?

KWA WANAUME: JE, **M5** IMEJIBIWA **NDIYO**?

NO **YES**

ANOREXIA NERVOSA

CURRENT

TABLE HEIGHT / WEIGHT THRESHOLD (HEIGHT-WITHOUT SHOES ; WEIGHT-WITHOUT CLOTHING)

HEIGHT(cm) UREFU (sm)	140	145	150	155	160	165	170	175	180	185	190
Females Wanawake WEIGHT (kg) UZITO (kilo)	37	38	39	41	43	45	47	50	52	54	57
Males Wanaume	41	43	45	47	49	51	52	54	56	58	61

THE WEIGHT THRESHOLDS ABOVE ARE CALCULATED AS A 15% REDUCTION BELOW THE NORMAL RANGE FOR THE PATIENT'S HEIGHT AND GENDER AS REQUIRED BY DSM-IV.

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

N. BULIMIA NERVOSA

N. UGONJWA WA TAFSIRI YA MAUMBILE BINAFSI UNAOHUSIANA NA KULA MNO

N1	In the past three months, did you have eating binges or times when you ate a very large amount of food within a 2-hour period ?	➔ NO	YES	8
N1	Katika miezi mitatu iliyopita, je uliwahi kula kupita kiasi au wakati ambapo umekula chakula kingi sana ndani ya masaa mawili?			
N2	In the last three months, did you have eating binges as often as twice a week ?	➔ NO	YES	9
N2	Katika miezi 3 iliyopita, je umewahi kula kupita kiasi kila mara, mara 2 kwa wiki?			
N3	During these binges, did you feel that your eating was out of control ?	➔ NO	YES	10
N3	Katika milo hii, ulijisikia kwamba kula kwako ni kwa kushindwa kujitawala?			
N4	Did you do anything to compensate for, or to prevent a weight gain from these binges, like vomiting, fasting, exercising or taking laxatives, enemas, diuretics (fluid pills), or other medications ?	➔ NO	YES	11
N4	Je ulifanya kitu chochote kufidia, au kuzuia kuongezeka uzito kutokana na milo hii, kama vile kutapika, kushinda na njaa, kufanya mazoezi, kumeza dawa za kuharisha, enema, kuongeza mkojo au dawa nyinginezo?			

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

N5 Does your body weight or shape greatly influence how you feel about yourself ? ➔

NO YES 12

N5 Je uzito wako au umbile lako linaathiri kwa kiasi kikubwa jinsi unavyojiona?

N6 DOES THE PATIENT'S SYMPTOMS MEET CRITERIA FOR ANOREXIA NERVOSA ?

NO YES 13

IF **N6** = **NO**, SKIP TO **N8**

N7 Do these binges occur only when you are under _____kg/lbs.* ? NO YES 14

- TAKE THE THRESHOLD WEIGHT FOR THIS PATIENT'S HEIGHT FROM THE HEIGHT / WEIGHT TABLE IN THE ANOREXIA NERVOSA MODULE

Je, milo hii ya kupita kiasi hutokea pale tu una uzito chini ya kilo _____ ?

- ANDIKA KIWANGO CHA UZITO KINACHOLINGANA NA UREFU WA MGONJWA KUTOKA KATIKA JEDWALILILILOPO KWENYE KIHUNZI CHA UGONJWA WA KUTOKULA

N8 IS **N5** CODED **YES** AND **N7** CODED **NO** (OR SKIPPED) ?

JE, **N5** IMEJIBIWA NDIYO **N7** IMEJIBIWA HAPANA (AU IMERUKWA KWA SABABU DALILI ZA MGONJWA HAZIFIKII VIGEZO VYA UGONJWA WA KUTOKULA)?

NO **YES**

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

BULIMIA NERVOSA

CURRENT

IS **N7** CODED **YES** ?

JE, **N7** IMEJIBIWA **NDIYO**?

NO **YES**

ANOREXIA NERVOSA

Binge-Eating/Purging Type

CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

O. GENERALIZED ANXIETY DISORDER

O. UGONJWA WA WASIWASI MKUBWA

O1a	Have you worried excessively or been anxious about several things of day to day life, at work, at home, in your close circle over the past 6 months ?	➔ NO	YES	1
	DO NOT CODE YES IF THE FOCUS OF THE ANXIETY IS CONFINED TO ANOTHER DISORDER EXPLORED PRIOR TO THIS POINT SUCH AS HAVING A PANIC ATTACK (PANIC DISORDER), BEING EMBARRASSED IN PUBLIC (SOCIAL PHOBIA), BEING CONTAMINATED (OCD), GAINING WEIGHT (ANOREXIA NERVOSA)...			
	Are these worries present most days ?	➔ NO	YES	2
O1a	Je, ulikuwa na woga sana au kupata wasiwasi juu ya mambo mawili au zaidi(mf. Pesa, afya ya watoto, msiba) kwa kipindi cha miezi 6 iliyopita? Zaidi ya watu wengi webgine wanavyokuwa?			

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

Je, woga huu unakuwepo karibu siku zote?

O2	Do you find it difficult to control the worries or do they interfere with your ability to focus on what you are doing ?	➔ NO	YES	3
O2	Je unapata tabu kujizuia na woga, au je inavuruga uwezo wako wa kuwa makini kwa unachokifanya?			
	FROM O3a TO O3f, CODE NO THE SYMPTOMS CONFINED TO FEATURES OF ANY DISORDER EXPLORED PRIOR TO THIS POINT			
O3	**When you were anxious over the past 6 months, did you, almost every day :**			
O3	**Waakati ulipokuwa na wasiwasi katika miezi 6 iliyopita, je, muda mwingi:**			
a	Feel restless, keyed up or on edge ?	NO	YES	4
a	Ulijisikia kutotulia, kuamshwa, au mwenye kiherehere?			
b	Feel tense ?	NO	YES	5
b	Ulijisikia kukakamaa?			

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

c	Feel tired, weak or exhausted easily ?	NO	YES	6
c	Ulijisikia kuchoka, mdhaifu, au kuchoka mapema?			
d	Have difficulty concentrating or find your mind going blank ?	NO	YES	7
d	Ulipata tabu ya kuwa makini, au kuona unapoteza kumbukumbu?			
e	Feel irritable ?	NO	YES	8
e	Ulijisikia mwenye kuudhika upesi?			
f	Have difficulty sleeping (difficulty falling asleep, waking up in the middle of the night, early morning wakening or sleeping excessively) ?	NO	YES	9
f	Ulipata tabu ya usingizi (tabu ya kupata usingizi, kuamka katikati ya usiku, kuamka mapema asubuhi, au kulala mno)?			

ARE **3** OR MORE **O3** ANSWERS CODED **YES** ?

JE VIPENGELE **3** AU ZAIDI VYA **O3** VIMEJIBIWA **NDIYO**?

NO **YES**

GENERALIZED ANXIETY DISORDER

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

CURRENT

➔ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

Q. ANTISOCIAL PERSONALITY DISORDER (optional)
Q. UGONJWA WA MAKUZI YA HULKA NA TABIA ZINAZOPINGANA NA JAMII (hiari)

P1 **Before you were 15 years old, did you :**

Kabla hujawa na umri wa miaka 15, je:

a	Repeatedly skip school or run away from home overnight ? Ulikuwa ukitoroka shule mara kwa mara au kuondoka nyumbani usiku?	NO	YES	1
b	Repeatedly lie, cheat, « con » others, or steal? Ulikuwa ukidanganya mara kwa mara, ukilaghai, kutapeli wengine, au kuiba?	NO	YES	2
c	Start fights or bully, threaten, or intimidate others? Ulianzisha ugomvi au kudhulumu, kutishia au kutisha wengine?	NO	YES	3
d	Deliberately destroy things or start fires? Kwa makusudi uliharibu vitu au kuwasha moto?	NO	YES	4
e	Deliberately hurt animals or people? Kwa makusudi kuwadhuru wanyama au watu?	NO	YES	5
f	Force someone to have sex with you? Kumlazimisha mtu kufanya mapenzi na wewe?	NO	YES	6

→ MEANS : **GO** TO THE DIAGNOSTIC BOX(ES) OF THIS MODULE, **CIRCLE NO** IN ALL OF THEM AND **MOVE** TO THE NEXT MODULE

		→		
	ARE **2** OR MORE **P1** ANSWERS CODED **YES**? JE, VIPENGELE **2** AU ZAIDI VYA **P1** VIMEJIBIWA **NDIYO**?	NO	YES	
P2	DO NOT CODE YES THE BEHAVIORS BELOW IF THEY ARE EXCLUSIVELY POLITICALLY OR RELIGIOUSLY MOTIVATED USIJIBU NDIYO KWA TABIA ZILIZO HAPA CHINI IKIWA ZIMESABABISHWA NA MAMBO YA KISIASA AU KIDINI			
	Since you were 15 years old, have you: ** **Tangu umri wa miaka 15, je:			
a	Repeatedly behaved in a way that others would consider irresponsible, like failing to pay for things you owed, deliberately being impulsive or deliberately not working to support yourself? Mara kwa mara ulikuwa na tabia ambayo watu wengine wangeona kama ni kutowajibika, kama vile kushindwa kulipa madeni, kwa makusudi kuwa jazba au kwa makusudi kutofanya kazi ili kujitegemea?	NO	YES	7
b	Done things that are illegal even if you didn't get caught (i.e., destroying property, shoplifting, stealing, selling drugs, or committing a felony) ? Hufanya mambo kinyume cha sheria hata kama hukutiwa mbaroni (kama vile, kuharibu mali, kuiba vitu dukani, wizi, kuuza madawa ya kulevya, au kufanya kosa la jinai)?	NO	YES	8
c	Been in physical fights repeatedly (including physical fights with your spouse or children) ? Ulikuwa ukipigana mara kwa mara (ikiwemo kupigana na mke / mume wako au watoto)	NO	YES	9

d	Often lied or « conned » other people to get money or pleasure, or lied just for fun? Mara kwa mara kudanganya au “kutapeli” watu wengine ili kupata pesa au starehe, au kudanganya kwa kuchekesha watu tu?	NO	YES	10
e	Exposed others to danger without caring? Kuwaweka wengine katika hatari bila ya kujali?	NO	YES	11
f	Felt no guilt after hurting, mistreating, lying to, or stealing from others, or after damaging property? Kujiona huna hatia baada ya kuleta madhara, kufanya maovu, kudanganya, au kuwaibia watu, au baada ya kuharibu mali?	NO	YES	12

ARE **3** OR MORE ITEMS FROM **P2** CODED **YES** ?

JE, VIPENGELE **3** AU ZAIDI VYA **P2** VIMEJIBIWA **NDIYO**?

NO	**YES**

ANTISOCIAL PERSONALITY DISORDER

LIFETIME

REFERENCES

Lecrubier Y, Sheehan D, Weiller E, Amorim P, Bonora I, Sheehan K, Janavs J, Dunbar G. The Mini International Neuropsychiatric Interview (M.I.N.I.), a short diagnostic interview : Reliability and validity according to the CIDI. *European Psychiatry*, 1997 ; **12** : 224-231.

Sheehan DV, Lecrubier Y, Harnett Sheehan K, Janavs J, Weiller E, Bonora LI, Keskiner A, Schinka J, Knapp E, Sheehan MF, Dunbar GC. Reliability and validity of the Mini International Neuropsychiatric Interview (M.I.N.I.) according to the SCID-P. *European Psychiatry*, 1997 ; **12** : 232-241.

Sheehan DV, Lecrubier Y, Harnett Sheehan K, Amorim P, Janavs J, Weiller E, Hergueta T., Baker R, Dunbar G. The Mini International Neuropsychiatric Interview (M.I.N.I.), : The development and validation of a structured diagnostic psychiatric interview. In press. *Journal of Clinical Psychiatry*, 1998.

Amorim P, Lecrubier Y, Weiller E, Hergueta T, Sheehan D. DSM-III-R Psychotic disorders : procedural validity of the Mini International Neuropsychiatric Interview (M.I.N.I.). Concordance and causes for discordance with the CIDI. *European Psychiatry*, 1998 ; **13** : 26-34.

The M.I.N.I. was developed simultaneously into French and English. The French and English original versions of the M.I.N.I. for DSM-IV were translated and can be asked to the authors (see page 3). An ICD-10 version is also available into French, English, Danish and Indonesian.

Languages	**M.I.N.I. 4.4 and previous versions**	**M.I.N.I. 5.0.0 +**
Afrikaans		R. Emsley, N. Keyter
Arabic		O. Osman, E. Al-Radi
Basque		In preparation
Bengali		H. Banerjee, A. Banerjee
Brazilian	P. Amorim	P. Amorim
Bulgarian		L.G. Hranov
Catalan		In preparation
Czech	P. Zvolsky	P. Zvolsky
Croatian		In preparation
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Egyptian		R. Haddad, W. Naja, C. Baddoura, A. Okasha

(Arabic)		
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Hebrew	J. Zohar, Y. Sasson	R. Barda, I. Levinson
Hindi		K. Batra, S. Gambir
Hungarian	I. Bitter, J. Balazs	I. Bitter, J. Balazs
Icelandic		J. Stefanson
Indonesian		A. Maramis et al.
Italian	P. Donda, E. Weiller, I. Bonora	L. Conti, P. Donda, A. Rossi, M. Piccinelli, M. Tansella, G. Cassano
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Korean		H. Y. Jung et al.
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