ASSESSMENT OF PREVALENCEAND ASSOCIATED FACTORS OF COMMON MENTAL DISORDERS AMONG CANCER PATIENTS ATTENDING ST. PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE ONCOLOGY OPD, ADDIS ABABA, ETHIOPIA



BY

HAISH DESTA (Psychiatry Resident)

THESIS TO BE SUBMITTED TO SPHMMC PSYCHIATRY DEPARTMENT FOR THE PARTIAL FULFILLMENT OF CERTIFICATE OF SPECIALTY IN PSYCHIATRY

ADVISORS: DR. MULUKEN TESFAYE (Assistant prof. of Psychiatrist)

DR. GIRMA MAMO (Assistant prof. of Psychiatrist)

NOVEMBER, 2020 G.C

ADDIS ABABA, ETHIOPIA

Abstract

Background: common mental disorders are common co-morbid among cancer patients affecting, 29–60% of cancer patients. Therefore, the aim of this study is to determine the magnitude of common mental disorders (CMDs) and factors associated with it among cancer patients in Saint Paul Hospital Millennium Medical College (SPHMMC) in Addis Ababa, Ethiopia.

Methods: Hospital based analytic cross-sectional study which included 179 cancer patients was conducted in SPHMMC, Addis Ababa, Ethiopia. CMDs were assessed using standard tool Kessler 10. Descriptive statistics were done based on the standard Kessler 10 cut off points (0–19, 20–24, 25–29, and 30–50). Bivariate and multivariate logistic regression was done to identify factors associated with CMD.

Result: The prevalence of CMDs among breast cancer patients were 27.4% (49/179). According to the Kessler 10 score categorization, (19/179 (10.6%), 17/179 (9.5%), and 13/179 (7.3%) of these patients were having mild, moderate and severe CMD respectively. 130/179 (72.6%) were likely to be well. Comorbid medical illness, employment and family history of CMD were significantly associated with CMDs.

Conclusion: This study found that one in four among cancer patients had CMD. This study demonstrated significant association between CMD and chronic medical illnesses, family history, & employment status among adult cancer patients. Researcher should aware oncology unit on the findings, and Practitioners and policy makers needs to be sensitive to findings of this study

Keywords: CMD, Kessler 10, cancer, Ethiopia

Acknowledgement

I would like to express by deepest gratitude to my instructors, **Dr. Muluken Tesfaye** and **Dr. Girma Mamo** for the constructive guidance and advice on the process of undertaking this research.

I also want to thank SPHMMC Department of Psychiatry, for giving me the chance to do my research on this topic.

Last but not least, am deeply thankful for oncology unit nurses who helped me collecting the data.

Table of Contents

Abstract……...I

Acknowledgement……...II

List of Dummy Tables……..……....

III

List of Abbreviations……..…….VI

Chapter 1……..1

1.1 Background……. …..1

1.2 Statement of the problem……...……2

1.3 Significance of the study……3

Chapter 2 Literature review…….……5

2.1 common mental disorders…….…….5

2.2 prevalence of common mental disorders……...6

2.3 clinical presentation of CMD…….8

2.4 treatment and outcome of CMD in patients with cancer……...8

Chapter 3 Objectives…….….10

3.1 General Objective ……....10

3.2 Specific Objectives…….…….10

Chapter 4 Methodology…….11

4.1 Study setting and period……...11

4.2 Study design…….11

4.3 Populations……...12

4.3.1 Source population…….12

4.3.2 Study population……...12

4.4 Inclusión and exclusión criteria……...12

4.4.1 Inclusion criteria……...12

4.4.2 Exclusions criteria……...……...……...12

4.5 Sample size determination……...……13

4.6 Sampling procedure……14

4.7 Data collection procedure and measurement……...……14

4.7.1 Questionnaire……14

4.7.2 Data Collection Method……...15

4.7.3. Data entry and analysis……15

4.7.4. Data quality assurance……..…15

4.8 Study variables……16

4.8.1 Independent Variables……..…..…16

4.8.2 Dependent Variables……..…16

4.9 Ethical consideration……17

4.10 Dissemination of Results……...17

4.11 Operational Definitions……...…...17

Chapter 5 Result ……18

Chapter 6 Discussion ……24

6.1 strength of the study……25

6.2 limitation of the study……..25

Chapter 7 Conclusion and Recommendation……26

Reference ……...…...27

Annex ……....31

List of Dummy Tables

Table 1- Socio-demographic characteristics of the participants, October 2020 ……...18

Table 2 –clinical characteristics of the participants, October 2020……20

Figure of prevalence of CMD ……21

Table 3- analysis of factors associated with CMD among cancer patients, October 2020….22

List of Abbreviations

ASCO - American Society of Clinical Oncology

CBT - Cognitive Behavioral Therapy

CMD - Common Mental Disorders

CANSA - Cancer Association of South Africa

Kessler -10 - Kessler Psychological Distress Scale (k10)

LLMIC - Low- & Lower-Middle Income Countries

MH-OAT- Mental Health Outcomes Assessment training

MPAC - Memorial Pain Assessment Card

OPD - Out Patient Department

AOR – Adjusted Odds Ratio

SPHMMC - Saint Paul Millennium Medical College

WHO - Word Health Organization

CHAPTER 1

INTRODUCTION

1.1 Background

Study of the relationship between poor physical health and high mortality in people with mental illness has a long history (1). Psychological distress is frequently observed among cancer patients during the clinical course of the disease and patients are confronted with problems such as fear of death, unresolved issues and pain (2). Previous studies have indicated that psychological disorders are common in patients with cancer and might have significant influence on overall morbidity and mortality ,though, adequate data are lacking to better assess this influence and the potential benefits of interventions (3). For adults diagnosed with cancer and other chronic illnesses, the "risk of psychological disability" is nearly six times higher than for adults not living with cancer. Moreover, population-based data indicate that adult cancer survivors are more than twice as likely to have "disabling psychological problems" as adults without cancer (4).

Although the adverse effects of cancer diagnosis and treatments on mental health are known, about less than 10% of patients are estimated to be referred to seek help. The primary purpose of this study is to obtain baseline information on mental health of patients with cancer at oncology outpatient clinic, and to identify risk factors that may provide clues healthcare practitioners in recognizing those needing psychiatric help in oncology practice.

One out of three people diagnosed with cancer also wind up struggling with a mental health disorder such as anxiety and depression. Many people seem to cope with the natural stress of a cancer diagnosis, but for about 32% of cancer patients, the diagnosis may prompt a full-blown psychological disorder (5).

Depression affects performance of routine activities, quality of sleep, and productivity of the affected individual (6). It can also negatively affect the outcome of individual's chronic diseases such as diabetes, cardiovascular diseases, cancer, and obesity (7). On the other hand, anxiety is a response of body to a perceived threat which is triggered by an individual's beliefs, feelings, and thoughts and is characterized by worried thoughts, tension, and increased sympathetic outflow,

difficulty of swallowing, dizziness, and chest pain. Anxiety can often co-exist with major depression which worsen the clinical course (8).

Cancer is a rapidly growing public health problem in low- and lower-middle-income countries (LLMICs) (9). There is evidence from upper-income countries that co morbid mental illness is common and can adversely affect cancer outcomes. Little is known about this burden in LLMICs (10).

According to the study done on prevalence of depression and pain complaints , in Addis Ababa university in 2016 , prevalence of depression was 39.9% and prevalence of pain complaint was 70% (11).

1.2 Statement of The Problem

Substantial rate of mental disorders exists in patients with cancer (12). Most cancer patients may suffer from psychological problems in varying degrees (13). Psychological distress may be part of a reaction to the cancer diagnosis but in many patients, it persists, causing an added burden during treatment and leading to more difficulty with general management and symptom control, increased length of hospital stays and decreased compliance with treatment (3).

However, these psychiatric disorders in cancer patients seem to be ignored and left untreated. Understanding these common psychiatric disorders and associated social factors found in cancer patients can help to plan for effective treatment of these patients and may result in more treatment success (3).

Therefore, having a good understanding on the prevalence and risk factors of psychological problems among cancer patients is helpful in identifying high-risk patients (14).

1.3 Significance of The Study

Despite the fact that mental disorders are the commonest co morbidities in cancer, it still is significantly under diagnosed hence probably untreated (15). Primary reactions of patients to the diagnosis of having tumors often followed by a period of emotional instability marked with increased anxiety, depressive mood and decrease of daily activities and proportion of cancer patients develop psychiatric disorders following the diagnosis which requires special treatment (16). A number of patients also have psychiatric disorders, that already exist premorbid or recur because of the increased strain as a result of the disease and its treatment (e.g. recurrent depressive disorder) (16).

The diagnosis and treatment of cancer have a significant impact on mental health, and are associated with a physical, emotional and financial burden both on individuals and on society as a whole (16). Both these major non-communicable diseases have close interdependencies. Nevertheless, their clinical and research communities have traditionally not worked together much. This view has recently been reinforced by a report from the King's Fund and Centre for Mental Health (16).

Cancer is rapidly growing public health problem in low- and lower-middle-income countries (LLMICs). There is evidence from upper-income countries that co morbid mental illness is common and can adversely impact cancer outcomes. Little is known about this burden in LLMICs (16).

Although mental illnesses are significantly prevalent in cancer patients, there is little information available on the extent of mental disorders in cancer patients in Ethiopia (17). Assessing the prevalence of cancer related mental disorders, and associated factors causing patients experience various problems is greatly helpful to different sectors functioning on health and others described following below. The output of this study is useful to the hospitals and to health care providers to improve their services to patients of cancer. It also uses a base line to the researchers interested to study the case by adding the variables not addressed in this research.

The outcome of the study is again useful to the policy makers to critically look at the major findings and develop the new one that can alleviate the problems. The major gaps such as shortage of skilled human power, budget and lack of cooperation between oncologists and counselors retain the policy makers' attention for their say.

CHAPTER 2

LITERATURE REVIEW

2.1. What Are Common Mental Disorders?

CMDs refer to conditions of psychic distress that are the most prevalent psychiatric disorders, including the groups of anxiety, depressive, and substance abuse disorders (mainly alcohol), in their mild or even moderate forms.

They are well-known causes of major functional incapacity, which is often as significant as that seen in well-established psychiatric conditions. In addition to the individual's distress, this condition has a considerable socioeconomic impact due to absenteeism and demands for health services, and thus represents a public health concern. CMDs have particularly significant implications regarding women's health and prenatal and childhood health (10)
CMDs are psychiatric/psychological problems that can usually be seen among oncology patients (14). CMDs are primarily affective and anxiety disorders which affect approximately one third of persons with cancer in acute care Hospitals(14).

Anxiety associated with cancer amplifies feelings of pain, interferes with sleep habits, causes nausea and vomiting, and negatively effects on patients' quality of life. Unless it is treated serious anxiety can affect the length of patients' life. Anxiety symptoms are common at the initial stage of cancer diagnosis, during treatment decisions, as well as with concerns about return of the disease or disease progression (14).

Contrary to all assumptions patients with advanced cancer have less fear of death but greater from uncontrollable pain, state of loneliness and dependence on others (14).

The World Health Organization defines mental health as: "… a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community." (World Health Organization).

2.2 Prevalence of Common Mental Disorders in Cancer

In united states, psychological disorders are a commonly found co morbidity in cancer patients and survivors, and, if untreated, they potentially can have a negative impact on their care (18). Correcting for the lack of research at the intersection of cancer and mental health requires a fundamental shift in research interests and reprioritization of resources (17). For adults diagnosed with cancer and other chronic illnesses, the "risk of psychological disability" is nearly six times higher than for adults not living with cancer (4). Moreover, population-based data indicate that adult cancer survivors are more than twice as likely to have "disabling psychological problems" as adults without cancer (19).

World Mental Health Surveys assessed prevalence of CMDs in cancer patients, a study composed active cancer patients (357), cancer survivors (1373), and cancer free respondents (64657) with adjusted for socio-demographic confounders and other life time chronic conditions. The study found that prevalence of CMD among active cancer was higher(18.r%), than cancer free respondents (13.3%) and cancer survivors(14.6%), which shows prevalence of CMD to be highest among active cancer patients , lower among survivors , and lowest among cancer free respondents (20). Community respondents with active cancer have higher CMD rates and high treatment gap(19).

A study which was done by European Journal of Cancer on psychiatric disorders and associated factors in cancer patients, in a setting that includes inpatient, rehabilitation and outpatient treatment , reported that an association between mental disorders ,especially affective and anxiety disorders are highly prevalent in patients with cancer (19). Through a cross sectional design 517 patients (75% females) from two acute inpatient clinics, two rehabilitation clinic, and nine specialized practices for oncology were examined with standardized scales for psychological burden and quality of life. Somatic parameters were assessed through standardized medical records. Differences in the type of mental disorders were examined for gender, treatment setting, severity of cancer and physical impairment. Prevalence of mental disorders were 23.5% for the four weeks , 40% for the 12 weeks , and 56.5% for the life time periods (19). The current and 12 month rate of affective and anxiety disorders were approximately 25-33% higher than prevalence rates in recent epidemiological studies of the general population (19).

According to Dana Farber Cancer Institute and Brigham and Women's Hospital, Harvard Medical School Center for Palliative Care, Boston, Massachusetts, about 50% of patients with advanced cancer meet criteria for a psychiatric disorder, the most common being adjustment disorders (11%–35%) and major depression (5%–26%) (21).

Cancer Association of south Africa (CANSA) reported one out of three people diagnosed with cancer also wind up struggling with mental health disorder such anxiety and depression (22). Many people seem to cope with the natural stress of cancer diagnosis, but for about 32 percent of cancer patients , the diagnosis may prompt a full blown psychological disorder (19).

The majority of studies evaluating the prevalence of psychiatric comorbidity in cancer have been conducted in upper-income countries (9). Cancer is rapidly growing public health problem in low- and lower-middle income countries (LLMIC), but little is known about the burden of cancer in LLMIC (9). A systematic review and meta-analysis to assess psychiatric disorders among people with cancer in LLMIC compared results of upper income countries with LLMIC and have estimated the pooled prevalence of comorbid mental disorders as being 32%, (9)comorbid mood disorders to range from 30% to 40% (9)and comorbid depression to range from 8% to 24% (9).

Cancer, one of the non-communicable diseases, is among the major causes of morbidity and death in Ethiopia, yet the prevalence of CMD in cancer patients is not yet well studied with huge information gap. A facility-based cross sectional study done on Prevalence of Depression and Anxiety and Associated Factors among Cancer Patient at Tikur Anbessa Hospital, found that the prevalence of depression is 63% and the prevalence of anxiety is 56.8% among cancer patients at Tikur Anbessa Specialized Hospital (23).

2.3. Clinical Presentation and treatment of CMDs

A patient with mental health problem can have variety of signs and symptoms of presentation which can be a clue for assessment of mental disorders**.** The American Psychiatric Association states that if several of the following are occurring, it may useful to follow up with a mental health professional.

Cancer patients with co morbid depression disorders present with depressed mood, loss of interest or pleasure(feels sad , empty, hopeless), sleep changes, feeling of worthless or excessive guilt, diminished ability to concentrate, recurrent thoughts of death (24).

Patients diagnosed cancer and having co morbid anxiety presents with a clinical picture of marked fear or anxiousness, palpitation, sweating, shaking, easy fatigue, difficulty of concentrating, irritability, sleep disturbance (24).

Cancer patients with trauma and stress related disorders can present with marked distress after being diagnosed with of cancer, involuntary distressing intrusive memory, recurrent distressing dreams, persistent avoidance of stimuli related to their diagnosed cancer, alteration in arousal and reactivity (24).

The quality of life of cancer survivors is multifaceted and is influenced by variety of cancer-related and noncancer factors from the time of cancer diagnosis through long-term survivorship. Physical health and symptoms directly affect mental health, and vice versa(25). Studies of quality of life in cancer survivors have examined both the physical and mental health consequences of cancer and its treatments. Health care providers have focused largely on patients' physical symptoms and physical health status, and less emphasis has been placed on mental health issues (25).

Studies demonstrate that psychotherapy, psycho education and relaxation training may have small to medium short-term effects on relieving emotional distress and reducing symptoms of anxiety and depression, as well as improving health-related quality of life (26).
American Society of Clinical Oncology (ASCO) published adapted guidelines for the screening, assessment, and treatment of anxiety and depressive symptoms in adults with cancer and suggest

annual mental health screening using the ASCO guidelines described previously, with appropriate referrals to mental health professionals in patients' communities or surrounding areas (25).

The National Institute of Health and Clinical Excellence has published intervention guidelines for common mental disorders, and so has the World Health Organization (WHO), with the main focus on primary care practitioners (the Mental Health Gap Action Program, which also made available in its website the effect sizes of recommended interventions (17).

CHAPTER 3

OBJECTIVES

3.1 General Objective

- To determine the prevalence of CMDs and Associated factors among patients with Cancer on follow up at SPHMMC

3.2 Specific Objectives

- To quantify the prevalence of CMDs among patients with Cancer on follow up at St. Paul's Hospital Millennium Medical College
- To describe associated factors to CMDs among patients with Cancer on follow up at SPHMMC

CHAPTER 4

METHODOLOGY

4.1 Study Setting and Period

Study on prevalence of CMDs in patients with cancer was conducted at SPHMMC Oncology OPD, Addis Ababa Ethiopia, from 01/09/2020 to 31/10 /2020GC.

Saint Paul's hospital is the second largest referral public hospital in Addis Ababa, Ethiopia. The Hospital was established in 1968 and opened medical school in 2007. Its core service includes the provision of medical care, teaching and research. The Hospital's Oncology department started service around one year and half ago and currently provides OPD service for adults, children and adolescents. SPHMMC opened its oncology department to be the second Hospital offering cancer treatment in the country, following Black Lion Hospital, and shared Black Lions burden for Chemotherapy. SPHMMC is also building a nine-story building to become an Oncology excellence center for the country. It also provides teaching service for both undergraduate and post graduate medical education.

4.2 Study Design

Hospital based analytic cross-sectional study design was conducted on the prevalence and associated factors of common mental disorders in patients with cancer attending SPHMMC oncology OPD, using interviewer administered structured questionnaire to collect data.

4.3 Populations

4.3.1 Source Population

The source population was all patients attending SPHMMC oncology OPD diagnosed to have cancer by the attending physician. The sampling frame was all patients diagnosed with cancer registered on follow up and new patient registry at SPHMMC oncology OPD.

4.3.2 Study Population

Study population included all patients attending SPHMMC oncology unit diagnosed to have cancer by attending oncology unit that fulfill the inclusion criteria.

4.4 Inclusion and Exclusion Criteria

4.4.1 Inclusion Criteria

- All adult cancer patients attending the oncology clinic at SPHMMC during the study period
- Age greater than or equal to 18 years.
- Those who gave informed consent

4.4.2 Exclusion Criteria

- Unable to hear or speak
- The presence of severe physical, cognitive or language impairments that would interfere with a patient's ability to give informed consent for research

4.5 Sample Size Determination

The number of clients to be involved in the survey was determined using the formula.

$$N = \frac{(Z5)2\ x\ P(1-P)}{d2}$$

$$N = (1.96)2\ x\ 0.63(1-0.63)/(0.05)2$$

N= 353

N= Sample size

P= Prevalence of comorbid CMD in cancer patients

Z= Z-score at five level of significance

d= margin of sampling error

The sample size was calculated assuming the prevalence of comorbid CMD in cancer patients is as 30% (27), sampling error to be 5% and with 95% confidence interval. Hence the sample size was calculated to be 358.

Since total population is < 10,000 correction formula was used.

$$Nf = \frac{(N)\ (ni)}{N + ni}$$

Nf ~ 163

Where N = Average number of patients with cancer attending SPHMMC Psychiatry OPD in one-month duration = 290, number of cancer patients who visited SPHMMC oncology opd, from july1/20- august 6/2020, calculated from the log book of oncology OPD: SPHMMC, July, 2020.

With the assumption of 10% nonresponsive rate, the number of clients involved in the survey was determined to be 179.

Convenient sampling technique was employed to select patients who participate in the survey.

4.6 Sampling Procedure

At SPHMMC, Patients were interviewed after they had completed the normal OPD visit. The average total number of cancer patients expected to visit the hospital was counted to be 290 in one-month period as counted from the register. The first participant interviewed was the 1st patient with cancer who completed the OPD visit and became the 1st to give consent. In cases of patients who were not interested to participate in the study, the next patient was a candidate until a willing person was met, and continued from the last patient who gave the consent to participate.

4.7 Data Collection Procedure and Measurement

4.7.1 The Questionnaire

A structured questionnaire adapted from a socio-demographic profiles of the client and semi-structured questionnaire developed from a diagnostic tool, kessler-10 (Kessler psychological distress scale (k10)) to screen comorbid CMD, was used.

Kessler-10 is a 10-item questionnaire intended to yield a global measure of distress based on questions about anxiety and depressive symptom that a person has experienced in the most recent 4 week period with specificity and sensitivity of 83% and 86% respectively (28). Scores will range from 10 to 50.

People seen in primary care who score under 20 are likely to be well; score 20-24 are likely to have a mild mental disorder; score 25-29 are likely to have moderate mental disorder; and score 30 and over are likely to have a severe mental disorder

The questionnaire was translated to Amharic & Afan-Orommo and back translated to English by mental health professionals who are not used to the K10, to ensure the validity and reliability of the instrument.

4.7.2 Data Collection Method

A structured questionnaire was developed based primarily on sources from previous researches and literature review and the above-mentioned diagnostic tools with some modification to fit into our setup. The data was collected during working days.

Questionnaire was filled by trained nurses after the necessary briefing was given by principal investigator.

Twenty questionnaires were pre-tested at SPHMMC, oncology OPD, to check for clarity of the questions and completeness by the data collectors and principal investigator. Appropriate correction was done to the questionnaires if gaps were found during pretesting. The pretest participants were excluded from study.

4.7.3. Data Entry and Analysis

After completion of data collection, the data was cleared & entered in Epi Info version 7 and analyzed using SPSS version 20 and was presented with tables. An association was determined using a logistic regression analysis specifically bivariate logistic regression analysis.

4.7.4. Data Quality Assurance

There was a one-day training program by the principal investigator to be given to the data collectors before actual data collection period.

The questionnaire was produced and organized as simple as possible so that it could easily be understood by both data collectors and respondents and it was pretested before actual data collection period.

4.8 Study variables

4.8.1 Independent Variables

- Age
- Sex
- Marital status
- Educational status
- Average monthly income
- Employment status
- Social support system
- Duration of illness
- Type of current treatment
- Side effects from treatment
- Comorbid chronic medical illnesses
- Family history of CMD

4.8.2 Dependent Variables

- Kessler Score (CMD)

4.9 Ethical Consideration

Before commencing data collection, ethical clearance and a letter of support was obtained from SPHMMC, research ethical review committee.

After final clearance and approval, the letter was submitted to SPHMMC Psychiatry department Office. Objective and use of the interview were explained to the respondents and their verbal consent was obtained. It was explained for Study participants as they have the full right not to participate in the study if they were not willing or to quit their participation in the study at any time if they want. To ensure confidentiality of information, participants name was not used during data collection and this was clearly explained to participants of the study. The questionnaires and others tools were coded to exclude showing names; no references were made in oral or written reports that could link participants to the research. No conflict of interest was considered in doing the research. Patients who were found by the study to have a clinically significant common mental disorders were linked to receive appropriate treatment.

4.10 Dissemination of Results

The findings of this study are to be presented to SPHMMC, psychiatry department. It will also be sent to public health department for school publication presented in scientific conferences and published in a scientific journal. It also will be sent to local and international journal clubs to serve as further reference.

4.11 Operational Definitions

Common mental disorders (CMDs): Cut scores and definition

Mentally Well ⟶ A person who score sunder 20 in Kessler- 10item questionnaire.

Mild mental disorder ⟶ **A** person who scores 20-24 in Kessler- 10 item questionnaire.

Moderate mental disorder ⟶ A person who scores 25-29 in Kessler- 10 item questionnaire.

Severe mental disorder ⟶ A person who scores 30 and over in Kessler- 10 item questionnaire

A cancer patient ⟶ is a patient labelled to have cancer disease by an attending physician in oncology department

CHAPTER FIVE

RESULT

A total of 179 patients were enrolled in this study to assess the prevalence and associated factors of common mental disorders in patients with Cancer. All of the selected subjects participated in the study. Baseline demographic and clinical characteristics are included in the analysis.

5.1 Demographic Characteristics of Participants

Table 1 Socio-demographic characteristics of the participant (n=179)

Variables	Categories	Frequency	Percentage (%)
Sex	Male	63	35.2
	Female	116	64.8
Age	18-30	26	14.5
	31-50	81	45.3
	>50	72	40.2
Address	Urban	130	72.6
	Rural	49	27.4
Current relationship status	Single	18	10.1
	Married	131	73.2
	Separated	30	16.8
Highest level of education	Cannot read and write	14	7.8
	Can Read and write	31	17.3
	Elementary	30	16.8
	High school	56	31.3
	College and above	48	26.8
Employment status	Employed	117	65.4
	Unemployed	62	34.6
Income	0 -499	11	10.8
	500-2499	4	3.9
	s≥ 2500	13	12.7
Source of income	Monthly Salary	49	27.4
	Daily labor	20	11.2
	Pocket money from family	61	34.1
	Asking from people	11	6.1
	Renting home	11	6.1
	Pension	5	2.8
	Others	22	12.3
Social support	Family	125	69.8
	Relative	17	9.5
	Neighbor	2	1.1
	Friends	1	.6
	None	34	19.0

The demographic characteristics of the recipient subjects are shown in Table 1. Among the participants one hundred sixteen were female. Eighty-one (45.3%) of the respondents age lies between 31 and 50. The majority of patients who participated in the study were from the urban areas (72.6%) and Married (73.2%). Most of the participants' social support is from their family members 69.8%). Education levels varied, approximately 52.1% of recipients had completed a high school education and above. More than half of the participant were employed (65.4%) and their source of income was monthly salary.

5.2 The Clinical Characteristics of The Patients

The clinical characteristics of the patients are shown in table 2.

More than one third of the participants reported that the onset of symptoms was 13 to 72 Months (38%) of onset of the illness and more than half of them began the first treatment within six months (52%) of the diagnosis. Among participants 91.1% of them had less than three-time relapse history and 57.5 % were treated as outpatient using chemotherapy as treatment option (60.9%). One hundred forty-seven (147) participants reported side effect (82.1%) and, 5.6% had family history of common mental disorders.

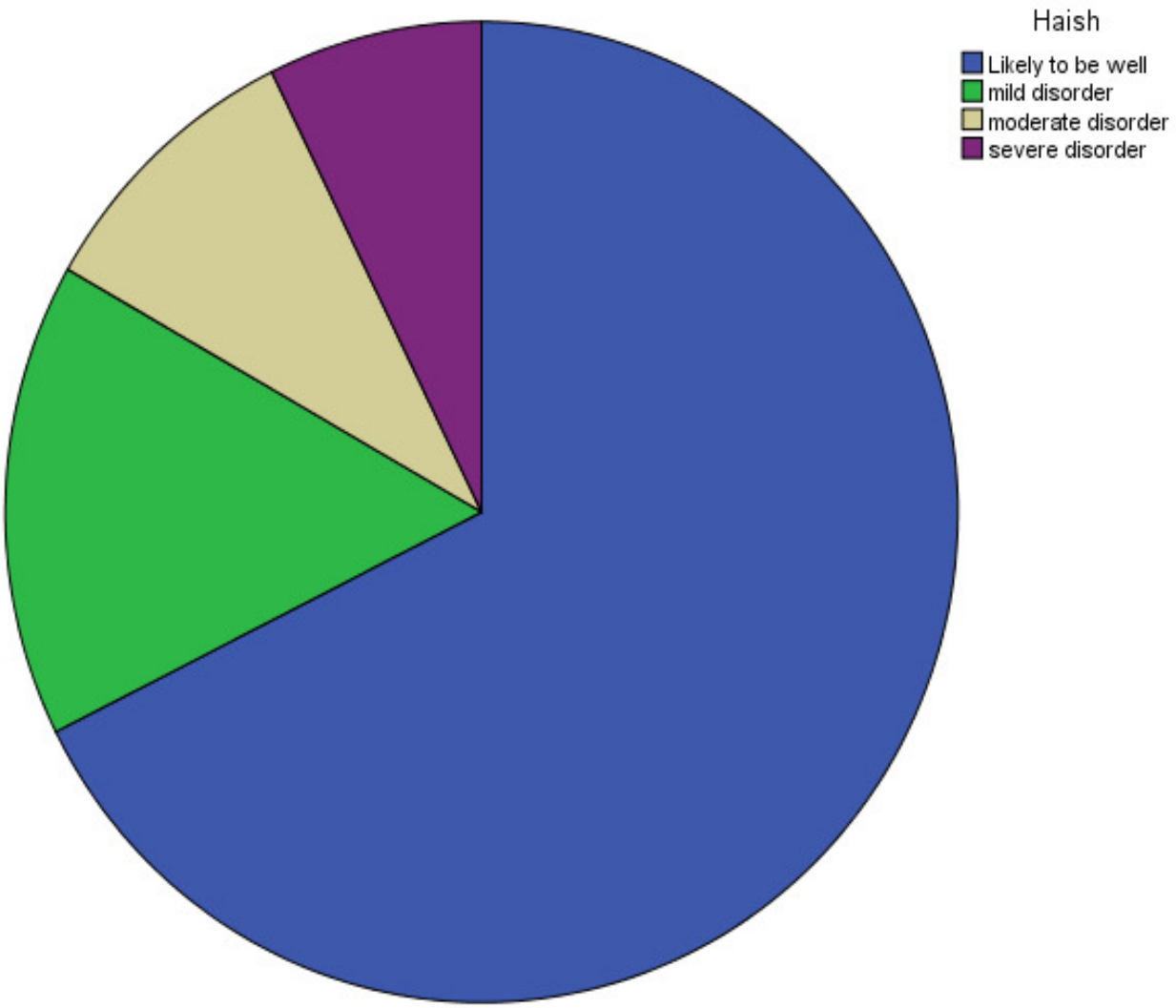
Table 2: Clinical Characteristics of the participant (n=179)

Variables	Categories	Frequency	Percentage (%)
Duration from the onset of symptoms	<6 Month	34	19.0
	7 to 12 Month	64	35.8
	13 to 72 Month	68	38.0
	73 to 143 Month	9	5.0
	> 145 months	4	2.2
Duration from start of treatment	<6 Month	93	52.0
	7 to 12 Month	58	32.4
	13 to 72 Month	25	14.0
	>73	1	.6
Number of recurrences/relapses	<3	163	91.1
	4 to 6	14	7.8
	>7	2	1.1
Admission	Yes	76	42.5
	No	103	57.5
Type of current treatment group.	Chemotherapy	109	60.9
	Surgery	4	2.2
	combination therapy	58	32.4
	None	8	4.5
Prominent side effects from the treatment	Yes	147	82.1
	No	32	17.9
Comorbid chronic medical illnesses	Yes	68	38.0
	No	111	62.0
Family history of common mental disorders	Yes	10	5.6
	No	169	94.4

5.3 Prevalence of Common Mental Disorder Among Cancer Patient

All of the hundred seventy-nine participants were screened using kessler-10 (global measure of distress (CMD) scale (k10)) to screen comorbid CMD. Forty-nine (27.4%) of the participants scored 20 to 50 on K-10 and 130 (72.6) of them scored less than 20. The overall prevalence of common mental disorders among cancer patients was 27.4%.

Figure one prevalence of mental disorder:



5.4 Analysis of Factors Associated with CMDs Among Cancer Patient

Table 3 Analysis of factors associated with common mental disorders among cancer patient (n=179)

Variables	CMD N (%)		COR (95%CI)	AOR (95%CI)	P
	Yes	No			
Sex					
Male	16 (32.7%)	47 (36.4%)	.856(.43,1.72)		
Female	33 (67.3%)	82 (63.6%)	1		
Age					
18-30	6(12.2%)	20(15.5%)	.64(.23,1.8)		
31-50	20(40.8%)	6046.5%)	.7(.34, 1.42)		
>50	23(46.9%)	49(38.0%)	1		
Address					
Urban	31(63.3%)	99(76.7%)	**.**54(.27, 1.09)		
Rural	18(36.7%)	30(23.3%)	1		
Current relationship status					
Single	4 (8.2%)	13(10.1%)	.67(.17, 2.59)		
Married	36(73.5%)	95(73.6%)	.88(.37, 2.11)		
Separated	9(18.4%)	21(16.3%)			
Level of education					
College and above	7(14.3%)	41(31.8%)	1.3(.35, 4.78)		
High school	16(32.7%)	39(30.2%)	.72(.21, 2.48)		
Elementary	8(16.3%)	22(17.1%)	.65(.17, 2.55)		
Read and write	13(26.5%)	18(14.0%)	.31(.08, 1.19)		
Cannot write and write	5(10.2%)	9(7.0%)	1		
Employment status					
Employed	22(44.9%)	94(72.9%)	**.3(.15, .6) ****	**.27(.12, .6)**	**.001**
Unemployed	27(55.1%)	35(27.1%)	1		
Income					
0 -499	24(49.0%)	41(31.8%)	1.92(.92,3.98)		
500-2499	7(14.3%)	30(23.3%)	.76(.29, 2.03)		
≥ 2500	18(36.7%)	58(45.0%)			
Social support					
Family	37(75.5%)	87(67.4%)	1.62(.65,4.0)		
Relative	3(6.1%)	14(10.9%)	.82(.18, 3.67)		
Neighbor	2(4. 1%)	1 (.8%)			
Friends	7(14.3%)	27(20.9%)			
None	37(75.5%)	87(67.4%)			
Clinical characteristics					

Duration from the onset of symptoms					
<6 Month	9(18.4%)	25(19.4%)	.36(.04, 2.95)		
7 to 12 Month	11(22.4%)	53(41.1%)	.21(.03, 1.64)		
13 to 72 Month	21(42.9%)	46(35.7%)	.45(.06, 3.39)		
73 to 143 Month	6(12.2%)	3(2.3%)	2(.18,22.06)		
> 145 months	2(4.1%)	2(1.6%)	1		
Admission					
Yes	25(51.0%)	50(38.8%)	1.61(.83,3.13)		
No	24(49.0%)	79(61.2%)	1		
Type of current treatment group					
Chemotherapy	27(55.1%)	82(63.6%)	.99(.19, 5.19)		
Surgery	1(2.0%)	3(2.3%)	1(.06,16)		
combination therapy	19(38.8%)	3829.5%	1.46(.27,7.93)		
None	2(4.1%)	6(4.7%)	1		
Prominent side effects from the treatment					
Yes	42(85.7%)	104(80.6%)	1.43(.57,3.55)		
No	7(14.3%)	25(19.4%)			
Comorbid chronic medical illnesses					
Yes	25(51.0%)	43(33.3%)	**2.11(1.08,4.11) ***	**2.43(1.14,5.21)**	**.022**
No	24(49.0%)	86(66.7%)	1		
Family history of common mental disorders					
Yes	6(12.2%)	47(36.4%)	**4.39(1.18,16.31) ***	**4.21(1.05,16.92)**	**.043**
No	43(87.8%)	82(63.6%)	1		

∗ p-value < 0.05 and ∗∗ p-value <0.01

Comorbid chronic medical illnesses AOR:2.43,95%CI: (1.14,5.21), family history of common mental disorder AOR=4.21,95%CI: (1.05,16.92) and employment AOR: 10.59, 95% CI: (2.43-14.19) were significantly associated with mental distress among cancer patient.

CHAPTER SIX

DISCUSSION

6.1 Discussion of Results

The United States spends billions of dollars annually on cancer research and studies indicate that psychological disorders are common in patients with cancer and might have significant influence on overall morbidity and mortality (18) and studies show it has varied prevalence. A study done in Germany shows Prevalence rates of mental disorders were 23.5% for the 4-weeks, 40% for the 12-months, and 56.5% for the lifetime periods (29) but little work is done on prevalence of common mental disorders and it's impacts in Ethiopian cancer patients.

In this study of the 179 participants, 130(72.6%) scored <20, 19(10.6%) scored 20-24, 17(9.5%) scored 25-29, 13(7.3% scored >= 30. Total of 49(27.4%) scored 20-50, who have common mental disorder on Kessler-10, and 130(72.6%) score under 20 are likely to be well on Kessler-10.

The study was done taking the definition of CMDs in cancer patients as a Kessler score of ≥20 (28) making the overall prevalence of CMDs as a comorbidity 27.4%. The prevalence of this study is comparable with the Population-based studies conducted in industrialized countries which reported a prevalence of CMD ranging from 7 to 30%, with a mean of 17% (12.5% in men and 20% in women) (10). However this study is slightly lower than studies conducted in Latin America, Africa, and India, the reported prevalence exceeded 30% in the community and approximately 50% in the primary care setting (10).

It also is slightly smaller than studies conducted in Brazil, around 50% of patients seeking primary care services were identified as suspected CMD cases (10). A study done in Istanbul University shows somewhat higher incidence of psychological disorders in patients with cancer (30–60%), with approximately 29–43% fulfilling the diagnostic criteria for psychiatric disorders (30)as compared to the result of this study (27.4%).

The current study may differ from other studies due to methodological differences, especially the sensitivity difference of the different screening tools and difference in clinical and other psychosocial factors, of the study participants could be responsible for the discrepancies of the findings. Some studies used Kessler Psychological Distress Scale (K10) where as other studies

used Self-Reported Questionnaire (SRQ 20) for screening. The other factor might be cross-cultural difference since Ethiopian has strong psychosocial bond and spiritual affiliation that helps to reduce mental distress.

This study identified strong association between CMD and having family history of common mental disorders AOR=4.21, 95% CI:(1.05,16.92). Patients with cancer were four times likely to develop common mental disorder if they have family history of CMD. This may be due to biological predisposition to mental illness as mental disorders run in families in general. A study done in Bangladesh on relationship between positive family history of mental illness and major psychiatric disorders shows that there is extensive evidence that major psychiatric disorders have strong relationship with positive family history of mental illness (31).

Having comorbid chronic medical illness (AOR:2.43,95%CI: (1.14,5.21)) shows two and half times more likely to be distressing than other cancer patients without comorbidity. This may be due to the reasons that comorbid physical illness adds burden and impairs physically causing increased functional impairment and increased expense (economic burden). A study done in brazil on CMD and use of psychiatric drugs in cancer patients showed strong association between CMD in cancer patients and physical health condition (35). Another study done in turkey on characteristics and risk factors for common psychiatric disorders in patients with cancer seeking help for mental health showed association between CMD in cancer patients and chronic medical illness (34).

Employment is negatively associated with CMD AOR: 0.27, 95% CI: **(.12,.6)** found to be strongly protective. This may be a reason that people with high income can visit health facility on time and can offer for their health needs. This finding is consistent with findings of other studies done on relationship of employment and mental health. Work is at the very core of contemporary life for most people, providing financial security, personal identity, and an opportunity to make a meaningful contribution to community life (32). A study done in Denmark, Arhus University, on unemployment and mental disorders , an empirical analysis, showed that unemployment is strong risk factor for mental disorders (33).

6.2 Strength of The Study

- In the study comorbid mental disorder was screened using a very sensitive (86%) and specific (83%) enough tool (Kessler-10) to assess symptoms of common mental disorders (34)(35).
- The result of the study can be used as a scaffolding for future researches

6.3 Limitations of The Study

This study was not without potential limitations:

- The study design has inherent weakness being a cross sectional study, has the limitation to test the temporal sequence of these events.
- Small number of sample size affects the generalizability of the results to all patients with Cancer.
- Kessler 10 lacks validation study in Ethiopia.

CHAPTER SEVEN
CONCLUSION AND RECOMMENDATION

1. Conclusion

This study reveals that a substantial number of cancer patients (two to three patients in ten) had common mental disorders and extends the fact that CMD is a common comorbidity among adult cancer patients similar to different studies done in different setups((9)(23)(19)(21)).

This study clearly demonstrated significant association between CMD, and chronic medical illnesses, and family history among adult cancer patients.

Employment found to be protective factor for patients with cancer from common mental disorders.

2. Recommendation

The researcher should press on unfolding the findings to oncology unit and inform to link those with significant CMD to SPHAMMC psychiatry opd. Practitioners and policy makers need to be sensitive to findings of this study.

Active mental health screening of cancer patients for CMDs during their visit of oncology unit (opd) and appropriate referrals to mental health professionals is recommended.

Further analysis of factors included and large-scale Hospital and community-based studies are also recommended.

Standard validation of Kessler-10 in Ethiopia is mandatory.

References

1. Liu Y, Liu F, Yu Y, Li Q, Jin X, Li J. Symptom Frequencies and Intensities in Hospitalized Patients With Advanced Cancer Having Depressive Disorder. Am J Hosp Palliat Med. 2017;34(5):456–60.

2. Kisely S, Crowe E, Lawrence D. Cancer-related mortality in people with mental illness. JAMA Psychiatry. 2013;70(2):209–17.

3. Rosenfeld B, Pessin H, Kaim M, Funesti-esch J, Galietta M, Nelson CJ, et al. for Hastened Death in Terminally Ill Patients With Cancer. 2000;284(22):2907–11.

4. Lawrence D, Hancock J, Kisely S. Cancer and Mental Illness. 2015;179:88–98.

5. Shirama FH, Silva TB, dos Santos JC, de Oliveira PA, de Oliveira JI, Borges TL, et al. Factors associated with common mental disorders and use of psychiatric drugs in cancer outpatients. Arch Psychiatr Nurs. 2019;33(5):88–93.

6. Liu X, Kakade M, Fuller CJ, Fan B, Fang Y, Kong J. Depression after exposure to stressful events : lessons learned from the severe acute respiratory syndrome epidemic. Compr Psychiatry. 2012;53(1):15–23.

7. Findley P, Shen C, Sambamoorthi U. Multimorbidity and Persistent Depression among Veterans with Diabetes, Heart Disease, and Hypertension. 2011;109–19.

8. Craske MG, Stein MB. Anxiety. 2016;

9. Walker ZJ, Jones MP, Ravindran A V. Psychiatric disorders among people with cancer in low- and lower-middle- income countries : study protocol for a systematic review and meta-analysis. 2017;8–11.

10. Barreto MB, Santos LM, Feitosa CA, Fiaccone RL, Silva B, Santos DN, et al. Screening for common mental disorders using the SRQ-20 in Brazil : what are the alternative strategies for analysis ? 2018;115–22.

11. Journal B, Centre E, Uk D. 1* , 2 , 3 , 4. 2016;4(2):1–14.

12. Boyle HJ, Alibhai S, Decoster L, Efstathiou E, Fizazi K, Mottet N, et al. Updated recommendations of the International Society of Geriatric Oncology on prostate cancer management in older patients. Eur J Cancer. 2019;116:116–36.

13. Release P. Press Release N° 263. 2018;(September):13–5.

14. Gregurek R, Braš M, Dordević V, Ratković AS, Brajković L. Psychological problems of patients with cancer. Psychiatr Danub. 2010;22(2):227–30.

15. Wondimagegnehu A, Abebe W, Abraha A, Teferra S. Depression and social support among breast cancer patients in Addis Ababa , Ethiopia. 2019;1–8.

16. Alemayehu M, Deyessa N, Medihin G, Fekadu A. A descriptive analysis of depression and pain complaints among patients with cancer in a low income country. 2018;1–14.

17. O N, I L, S A-G, J A, LH A, MC A, et al. Comorbidity of common mental disorders with cancer and their treatment gap: findings from the World Mental Health Surveys. Psychooncology. 2014;23(August 2013):40–51.

18. Mark G. Kuczewski PJM-BM and ABM. AMA Journal of Ethics 2019. AMA J Ethics. 2019;21(1):E78-85.

19. Härter M, Reuter K, Aschenbrenner A, Schretzmann B, Marschner N, Hasenburg A, et al. Psychiatric disorders and associated factors in cancer: Results of an interview study with patients in inpatient, rehabilitation and outpatient treatment. Eur J Cancer. 2001;37(11):1385–93.

20. WHO(World Health Organization). Investing in M E N TA L H E A LT H. Invest Ment Heal. 2003;3–49.

21. Miovic M, Block S. Psychiatric disorders in advanced cancer. Cancer. 2007;110(8):1665–76.

22. Lunsford B. Cancer Association of South Africa (CANSA) Fact Sheet on Cancer and Mental Health. 2019;(April):1–8.

23. College of Education and Behavioral Studies School of Psychology Prevalence of Depression and Anxiety and Associated Factors among Cancer Patient at Tikur Anbessa Hospital BY : Meseret Mekonnen College of Education and Behavioral Studies School of Psychol. 2017;

24. Of M, Disorders M. DSM-5.

25. Naughton MJ, Weaver KE. Physical and Mental Health Among Cancer Survivors : Considerations for Long-Term Care and Quality of Life. 75(4).

26. Niedzwiedz CL, Knifton L, Robb KA, Katikireddi SV, Smith DJ. Depression and anxiety among people living with and beyond cancer : a growing clinical and research priority. 2019;1–8.

27. Ed DN, Cur BA. Cancer Association of South Africa (CANSA) Fact Sheet on Rooibos Tea. 2015;(May):1–9.

28. Kessler Psychological Distress Scale (K10) Source : Kessler R . Professor of Health Care Policy , Harvard Medical This is a 10-item questionnaire intended to yield a global measure of distress based on questions about anxiety and depressive symptoms tha. 2001;

29. Ha M. Psychiatric disorders and associated factors in cancer : results of an interview study with patients in inpatient , rehabilitation and outpatient treatment. 2001;37:1385–93.

30. Anuk D, Özkan M, Kizir A, Özkan S. The characteristics and risk factors for common psychiatric disorders in patients with cancer seeking help for mental health. 2019;1–11.

31. Uddin MMJ. Relationship between positive family history of mental illness and major psychiatric disorders. A study in a teaching hospital. 2019;(October).

32. Policy MH, Development S, Dependence S, Diseases N, Health M. Mental health and work : Impact , issues and. 2000;

33. Agerbo E, Eriksson T, Mortensen PB, Westergård-nielsen N. 5NEMPLOYMENT AND MENTAL DISORDERS AN EMPIRICAL ANALYSIS. 1998;(January).

34. Sampasa-Kanyinga H, Zamorski MA, Colman I. The psychometric properties of the 10-item kessler psychological distress scale (K10) in canadian military personnel. PLoS One. 2018;13(4):1–19.

35. Andrews G, Slade T. Interpreting scores on the Kessler Psychological Distress Scale (K10). Aust N Z J Public Health. 2001;25(6):494–7.

Annexes

Annex 1: Questionnaire

Introduction

My name is Dr. Haish Desta (psychiatry resident) I am working as data collector for the study being conducted at St. Paul's Hospital Millennium Medical College (SPHMMC), Department of Oncology by Dr Haish Desta. I am asking if you agree or disagree to participate in the study after knowing the purpose and general condition of the study which was stated below.

Title of the study: Prevalence of common mental disorders in patients with cancer among clients attending SPHMMC, Oncology OPD, Addis Ababa, Ethiopia.

Purpose of the study: Assess the prevalence common mental disorders among patients with cancer and the associated factors.

Risks and benefits: - The risk of participating in this study is very minimal. Except taking some minutes, for the interview, there is no other risk that you will experience. By participating in this study, you will not get direct benefit but the outcome of this study will be useful tool for mental health care providers and consequently service users or clients and mental health service in general.

Consent form

You are selected to be one of the participants in the study. You have the full right to participate or not to participate in the study if you are not willing to or quit at any time if you want. To ensure confidentiality of information, your name will not be used during data collection instead code will be used. The questionnaire will be coded to exclude showing names; no references will be made in oral or written reports that could link participants to the research. The finding of study will be general for the study population and will not reflect any thing particular of individual setting.

Are you willing to participate in the study?

1. Yes 2. No

Thank you very much.

If you agree to participate, please fill the following questionnaire

Date: ____/___/____

I. Identification		**Participant code:**_____	
II Socio-demographic			
	Questions	**Responses**	**Skip to/remarks**
01	Sex	1. Male 2. Female	
02	Age	_____yrs.	
03	Address	1.Urban 2. Rural	
04	Current Marital status	1. Single 2. Married 3. Separated	
05	Current religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others(specify)_____	
06	Current educational status	1. College and above 2. High school 3. Elementary 4. Read and write 5. Illiterate	
07	Average monthly income (Eth. Birr)	1. <300 2. 300-600 3. 601-1000 4. 1001-1500 5. 1501-2000	

		6. 2001-3000 7. >3000	
08	Employment status	1 Employed 2 Unemployed If answer is choice No 1, got to question No 209	
09	Current Occupation	1 Civil/domestic servant 2 House wife 3 Daily laborer 4 Student 5 Merchant 6 Others(specify)_____ 6. No response	
10	Source of income	1 Monthly Salary 2 Daily labor 3 Pocket money from family 4 Asking from people 5. Others (specify)	
11	Social support system	1 Family 2 Relative 3 Neighbor 4 Friends 5 None 6 Others (specify)_____	

III cancer and medical History

S.N.	Questions	Responses	Skip to /remarks
12	Duration from first symptoms (onset of symptoms)	_____yrs/ months	
13	Duration from First time treatment sought	_____yrs/moment	
14	Number of recurrences/relapses	_____	
15	Number of admissions, if any	_____	
16	Type of current treatment group.	**1** Chemotherapy **2** surgery **3** hormonal therapy **4** radiotherapy **5** combination therapy **6** none	
17	Form of Administration, if taking chemotherapy	1 Oral **2** IV **3** IM **4** Combination	
18	Dosage	1. High dose 2. Moderate 3. Low dose	
19	Prominent side effects from chemotherapy, surgery, hormonal therapy, radiotherapy, or from combination	1. Yes 2. No	
20	Phase of treatment	1. On treatment 2. In remission 3. On palliative care	
21	Comorbid chronic medical illnesses	1. Diabetes Mellitus	

		2. Hypertension 3. Cardiac illnesses 4. Renal disease 5. Tuberculosis 6. HIV/AIDS 7. None 8. Others (Specify)	

IV Screening for common mental disorders (CMDs)

Interviewer: The first question was asked as written. Use follow up probes or qualifiers were used at interviewer discretion. Time frame referred to last four weeks unless stipulated.

These questions concern how you have been feeling over the past 30 days. Tick a box below each question that best represents how patient has been.

S.No		1.None of the time	2. A little of the time	3.Some of the time	4.Most of the time	5.All of the time
22	During the last 30 days, about how often did you feel tired out for no good reason?					
23	During the last 30 days, about how often did you feel nervous?					
24	During the last 30 days, about how often did you feel so nervous that nothing could calm you down?					

25	During the last 30 days, about how often did you feel hopeless?					
26	During the last 30 days, about how often did you feel restless or fidgety?					
27	During the last 30 days, about how often did you feel so restless you could not sit still?					
28	During the last 30 days, about how often did you feel depressed?					
29	During the last 30 days, about how often did you feel that everything was an effort?					
30	During the last 30 days, about how often did you feel so sad that nothing could cheer you up?					
31	During the last 30 days, about how often did you feel worthless?					

Total score: _____

V. Family History

1 Family history of common mental disorders (depression, anxiety) ____

1. Yes 2. No

2 Family history of psychotic illnesses 1. Yes 2. No

2. መጠይቅ

መግቢያ

እኔ ስሜ_____ይባላል። በቅዱስ ጳውሎስ ሆስፒታል ሚሌንየም የህክምና ኮሌጅ የኣእምሮ ህክምና ክፍል ሬዝደንት ሐኪም በሆነው በዶ/ር ሃይሽ ደስታ ስለሚሰራው ጥናት መረጃ በመሰብሰብ ላይ ነኝ።የጥናቱን ሁኔታ፣ አላማና ፋይዳ ካወቁና ከተገነዘቡ በኋላ በጥናቱ ላይ ለመሳተፍ ፈቃደኛ መሆን ወይም አለመሆንዎን እንዲገልፁልኝ እጠይቅዎታለው።

የጥናቱ ርዕስ፡- በቅ/ጳ/ሆ/ሚ/ሜ/ኮ የካንሰር ተመላላሽ ሕክምና ክፍል በሚከታተሉ የካንሰር ታካሚዎች ላይ የሚከሰቱ የተለመዱ የአእምሮ ህመሞች ስርጭትና ተዛማጅ (አስተዋጽኦ የሚያደርጉ) ሁኔታዎች።

የጥናቱ አላማ፡- በካንሰር ታካሚዎች ላይ የሚከሰቱ የተለመዱ የአእምሮ ህመሞች ስርጭት መለካትና ተዛማጅ (አስተዋጽኦ የሚያደርጉ) ሁኔታዎችን ማጥናት።

ጥቅምና ተጋላጭነት፡- በዚህ ጥናት በመሳተፍዎ የሚደርስብዎ ተጋላጭነትና ጉዳት እምብዛም ነው።ቃለ መጠይቁን ለማካሄድ ከሚወስድብዎት ደቂቃዎች በቀር ይህ ነው የሚባል ተጋላጭነት ወይም ጉዳት አይኖረውም።

በዚህ ጥናት በመሳተፍዎ የሚያገኙት ቀጥተኛ ጥቅም አይኖርም፤ነገር ግን የዚህ ጥናት ውጤት ለአዕምሮ ጤና አገልግሎት ሰጪዎች ጠቃሚ መሳሪያ ይሆናል፤ ከዚህም ጋር ተያይዞ የአገልግሎቱን ተጠቃሚዎችና እንዲሁም እንዳጠቃላይ የአዕምሮ ጤና አገልግሎቱን የማሻሻል ሚና ይኖረዋል።

የስምምነት መስጫ ቅፅ

እርስዎ በዚህ ጥናት ላይ አንዱ እጩ ተሳታፊ ነዎት። በጥናቱ ላይ ለመሳተፍ ፈቃደኛ ካልሆኑ ያለመሳተፍ ሙሉ መብት አልዎት ፤ወይም በጥናቱ ሂደት ወቅት ሃሳብዎን ቢቀይሩ በየትኛውም የጥናቱ ደረጃ ላይ ሆነው ማቋረጥ ይችላሉ።

ለሚሰጡኝ መረጃ ሚስጥራዊነት ሲባል በመረጃ ስብሰባ ወቅት ስምዎን አልጠቀምም፤ይልቁንም ለእርስዎ ብቸኛ መለያ የሚሆን ኮድ እጠቀማለው።ስም ላለመጥቀስ ሲባል በኮድ ስጠቀም ማንኛውንም አይነት ተሳታፊውን ከጥናቱ ጋር የሚያስተሳስር ወይም የሚያገናኝ የጽሁፍም ሆነ የቃል አመላካች ሪፖርት ወይ ምዘገባ አይኖርም።በጥናቱ የሚገኘው ውጤት የጥናቱን ማሕበረሰብ እንደ አጠቃላይ የሚወስድ እንጂ በግል ስለእያንዳንዱ ተሳታፊ ያለውን ውጤት አያንጸባርቅም።

ጥናቱ ላይ ለመሳተፍ ፈቃደኛ ነዎት?

አዎ

አይደለሁም

በጣም አመሰግናለሁ።

ለመሳተፍ ፈቃደኛ ከሆኑ እባክዎን ለሚቀጥሉት ጥይቄዎች መልስ በመስጠት ይተባበሩኝ።

ቀን፡- _____ / _____ / _____ ዓ.ም.

መለያየተሳታፊውኮድ፡-_____

II - ማህበራዊናሥነ-ሕዝባዊ ሁኔታን የሚመለከቱ ጥያቄዎች:			
ተ.ቁ.	ጥያቄዎች	አማራጭ መልሶች	አስተያየት
01	ፆታ	ወንድ ሴት	
02	እድሜ	_____ዓመት	
03	የመኖሪያአድራሻ	1.ከተማ 2. ገጠር	
04	ባሁኑ ሰዓት የጋብቻ ሁኔታዎ ምን ይመስላል?	1. ያላገቡ 2.ያገቡ 3. ከባለቤትዎ የተለዩ	
05	የምን እምነት ተከታይ ነዎት?	1.ኦርቶዶክስ 2. ፕሮቴስታንት 3. ሙስሊም 4. ምንም እምነት የማይከተሉ 111. ሌላ ካለ ይገለጽ_____	
06	የትምህርት ደረጃ	ኮሌጅ እና ከዛ በላይ ሁለተኛ ደረጃ አንደኛ ደረጃ ማንበብና መፃፍ የሚችሉ ማንበብና መፃፍ የማይችሉ	
07	አማካይ ወርሃዊ ገቢ(የኢት. ብር)	1.<300 2.300-600 3.601-1000 4.1001-1500 5.1501-2000 6.2001-3000 7.>3000	
08	የስራ ሁኔታ	በስራ ላይ ያለ ስራ ፈላጊ መልስዎ ምርጫ ቁጥር 1 ከሆነ ጥያቄ ቁጥር 209ን ይመልሱ	

09	በአሁኑ ወቅት ያሉበት የስራ ዓይነት ምንድንነው?	የመንግስት ሠራተኛ የቤት እመቤት የቀን ሠራተኛ ተማሪ ነጋዴ ሌላ ካለ ይገለጽ_____	
10	የገቢ ምንጭ	ወርሃዊ ደሞዝ የቀን ስራ ከቤተሰብ የሚሰጥ የኪስ ገንዘብ ከሌላ ሰዎች በመጠየቅ/ በመለመን 111 ሌላ ካለ ይገለፅ_____	
11	ማህበራዊ ድጋፍ የሚያደርግሎት አካል	ቤተሰብ ዘመድ ጎረቤት ጓደኛ ማንም የለም ሌላ ካለ ይገለፅ_____	

III የካንሰርና የውስጥ ደዌ ህክምና ታሪክ

ተ. ቁ.	ጥያቄዎች	አማራጭ መልሶች	አስተያየት
11	የካንሰር ህመም ምልክቶች በእርሶ ላይ መታየት ከጀመረ ጠቅላላ ቆይታው ምን ያህል ነው?	_____ወር/ዓመት	
12	ለመጀመሪያ ጊዜ ሕክምና ከጀመሩ ጀምሮ ምን ያህል ጊዜ ነው?	_____ ወር/ዓመት	
13	ከዚህ በፊት ህመምዎ ምን ያህል ጊዜ አገርሽቶብዎታል?	_____	
14	ከዚህ በፊት አልጋ ይዘው ታክመው ያውቃሉ?	1. አዎ 2. አይ	
15	ካወቁ ምን ያህል ግዜ?	_____	
16	በአሁኑ ሰዓት የሚወስዱት የካንሰር ህክምና አይነቱ የትኛው ነው?	ከሞተራፒ ቀዶጥገና ሆርሞናል ተራፒ ረዲዮተራፒ ከሁለቱም አይነት	

		ምንም	
17	አሁን የምወስዱት ከሞተራፒክ ሆነ የመድሃኒቱ አወሳሰድ መንገድ	በአፍ የሚዋጥ በመርፌ ሆኖ በደምስር በመርፌ ሆኖ ከደምስር ውጭ ይወጋሉ በሁለቱም ላይነት (በአፍናበመርፌ)	
18	የመድሃኒቱ መጠን	አነስተኛ መካከለኛ ከፍተኛ	
19	ከከሞተራፒ መድሃኒቱ ጋር ተያይዞ ያጋጠምዎት የጎንዮሽ ጉዳት አለ?	አዎ የለም	
20	የህክምናው ደረጃ	የመጀመርያ ደረጃ ላይ ያለ ህክምና ቀጣይ ህክምና	
21	ተጓዳኝ የውስጥ ደዌ ህመሞች አሉ?	የስኳር ህመም የደም ግፊት የልብ ህመሞች የኩላሊት ህመም ቲቢ ኤች ኣይቪ/ኤድስ ምንም የለም 111. ሌላ ካለ ይገለፅ_____	

IV, የተለመዱ የአእምሮ ህመም ጋር የተያያዙ ማጣሪያዎች ጥያቄዎች (Kessler-10)

ተ.ቁ	ጥያቄዎች	1. በፍጹም ተስምቶኝ አያውቅም	2. እምብዛም አይሰማኝም	3. ለጥቂት ጊዜያት	4 አብዛኛውን ጊዜ	5. ሁል ጊዜ
22	በዚህ አንድ ወር ውስጥ የመደበር (የመከፋት) ስሜት ምን ያህል ጊዜ ይሰማዎት ነበር?					
23	በዚህ አንድ ወር ውስጥ በጣም ከመደበርዎ (ከመከፋትዎ) የተነሳ ምንም ነገር ሊያስደስትዎ ያልቻለበት ምን ያህል ጊዜ ነበር?					
24	በዚህ አንድ ወር ውስጥ ሊረጋጉ ቢችሉም እንኳን የመጨነቅ ስሜት ምን ያህል ጊዜ ይሰማዎት ነበር?					
25	በዚህ አንድ ወር ውስጥ በጣም ከመጨነቅዎ የተነሳ ምንም ነገር ሊያረጋጋዎት ያልቻለበት ጊዜ ምን ያህል ነበር?					
26	በዚህ አንድ ወር ውስጥ የመቁነጥነጥ ወይም እረፍት የማጣት ስሜት ምን ያህል ጊዜ ይሰማዎት ነበር?					
27	በዚህ አንድ ወር ውስጥ በጣም ከመቁነጥነጥዎ የተነሳ አንድ ቦታ መቀመጥ ያልቻሉበት ጊዜ ምን ያህል ነበር?					
28	በዚህ አንድ ወር ውስጥ ለማንም አልጠቅምም (ዋጋየለኝም) የሚል ስሜት ምን ያህል ጊዜ ይሰማዎት ነበር?					
29	በዚህ አንድ ወር ውስጥ ምንም ያህል ሳይሰሩ ሲደክሞት የነበረው ምን ያህል ጊዜ ነበር?					
30	በዚህ አንድ ወር ውስጥ ተስፋ የመቁረጥ ስሜት ምን ያህል ጊዜ ይሰማዎት ነበር?					
31	በዚህ አንድ ወር ውስጥ ሁሉንም ነገር (ለምሳሌ-መናገር፣ መነሳት፣ መሄድ፣ የመሳሰሉትን) የግድዎን ያደርጉ የነበረው ምን ያህል ጊዜ ነበር?					

ጠቅላላ ድምር ውጤት=_____

IV የቤተሰብ ታሪክ

ነ. በቤተሰብ ውስጥ እውነታን የሚያስቱ ህመሞች (psychotic illnesses) ያለበት ሰው አለ?

ነ. አዎ 2. የለም

2. በቤተሰብ ውስጥ የስሜት መለወጥ/መቃወስ (mood disorders) ምልክቶች ያለበት ሰው አለ?

1.አዎ 2. የለም

V, Gaaffiiwwandhukkubasammuubaratamoowaliinwalqabataniijiraniif (“Kessler-10”)

LakGaaffiiwwan

0. Gonkumaanattidhagahameehinbeeku

1. Hagasnattihindhagahamne

2. Yerooxiqqoodhaaf

3. Yeroobaay’eef

4. Yeroohunda

101.Ji’atokkicha kana keessaatiimiirrimukaawuuyerooammamiifsittidhagahamaaturee ?

102.Ji’atokkicha kana keessaatiimiirrimukaawuusittidhagahamuuisaatiifwantikamiyyuu kin si gammachiisuuhindandeenyeyeroohagamiif ?

103.Ji’atokkicha kana keessaatiitasgabbaa’uudandeessuusmiirricinqamuudhaayeroohagamiifsitti dhagahamaature?

104.Ji’atokkicha kana keessaaticinqamuukeetirraakanka’ewantikamiyyuuakkahintasgabboofnekan sigodheyeroohagamiitiif?

105.Ji’atokkicha kana keessaatiimiirriboqonnaadhabuuyeroohagamiitiif?

106.Ji’atokkicha kana keessaatisababamiiraboqonnaadhabuuurraakankan’eiddotokko tasggabboofteakkahinteenyekansigodheyeroohagamiitiif?

107.Ji’atokkicha kana keessaatimiirri “ani namakamiiyyuuffayyaduuhindanda’uyookingatiihinqabu” jedhuyeroohagamiitiifsittidhagahame?

108.Ji’atokkicha kana keessaatiwantatokkolleeodoohinhojjetiinmiirridhadhabbiiyeroohagamiitiifsitti dhagahame?

109.Ji’atokkicha kana keessaatimiirriabdiikutachuuyeroohagamiitiifsittidhagahame?

110.Ji’atokkicha kana keessaatiwantahunda (fkndubbachuu, ka’uu, deemuu, fikan kana fakkaatan) dirqamaankangochaaturteeyeroohagamiitiif ?

ANNEX 2

DUMMY TABLES

Table 1- Socio-demographic distribution among cancer patients with CMD cancer patients without CMD, in cancer patients visiting SPHMMC Oncology OPD, 2020.

Variables		**Cancer patients with CMD**		**Cancer patients without depression**		**Total**	
		No	%	No	%	No	%
Age	18-22						
	23-27						
	28-32						
	33-37						
	38-42						
	>42						
Address	Urban						
	Rural						
Sex	Male						
	Female						
Marital status	Single						
	Married						
	Divorced						
	Widowed						
Average monthly income (ETB)	<300						
	300-600						
	601-1000						
	1001-1500						
	1501-2000						
	2001-3000						
	>3000						

Employment status	Employed						
	Unemployed						
Social support system	Parents						
	Sibling						
	Spouse						
	Relative						
	Neighbor						
	Friends						
	Work mates						
	None						
	Others						

Table 2- Kessler 10 score of cancer patients attending adult OPD, SPHMMC Oncology OPD, 2020

Kessler Score	No	%
<20		
20-24		
25-29		
>=30		
Total		

Table 3– Chronic illnesses among patients with and without CMD attending SPHMMC Oncology OPD, 2020.

Chronic illnesses	Cancer patients with CMD		Cancer patients Without CMD		Total	
	No	%	No	%	No	%
Tuberculosis						
HIV/AIDS						
Renal Disease						
Diabetes Mellitus						
Hypertension						
Cardiac illnesses						
Others						
None						
Total						

Table 4-Duration from first symptoms (onset of symptoms) Vs CMD in patients with Cancer among patients attending adult OPD, SPHMMC Oncology OPD, 2020.

Duration from first symptoms	Cancer patients with common mental disorders (CMD)		Cancer patients without common mental disorders (CMD)		Total	
	No	%	No	%	No	%
Total						

Table 5 – Relationship of number of recurrence/relapses with CMD in cancer patients attending adult OPD, SPHMMC Oncology OPD, 2020.

Number of recurrences/relapses	Cancer patients with common mental disorders (CMD)		Cancer patients without common mental disorders (CMD)		Total	
1st Episode	No	%	No	%	No	%
2nd Episode						
3rd Episode						
4th Episode						
5th Episode						
>5 Episodes						
Total						

Table 6 – Association of total duration of treatment with CMD in Cancer patients attending adult OPD, SPHMMC Oncology OPD, 2020.

Total duration on treatment	Cancer patients with common mental disorders (CMD)		Cancer patients without common mental disorders (CMD)		Total	
	No	%	No	%	No	%
Total						

Table 7– Relationship of number of admissions with CMD in cancer patients attending adult OPD, SPHMMC Oncology OPD, 2020.

Number of admissions	Cancer patients with common mental disorders (CMD)		Cancer patients without common mental disorders (CMD)		Total	
	No	%	No	%	No	%
0						
1						
2						
3						
4						
5						
>5						
Total						

Table 8 – Relationship of type of treatment with CMD in Cancer patients attending adult OPD, SPHMMC Oncology OPD, 2020.

Type of current treatment modality	Cancer patients with common mental disorders (CMD)		Cancer patients without common mental disorders (CMD)		Total	
	No	%	No	%	No	%
Chemotherapy						
Surgery						

Hormone e therapy	
Radiation therapy	
Combined	

Table9 –Distribution of side effects from treatment in CMD and non-CMD Cancer patients, adult OPD, SPHMMC Oncology OPD, 2020.

Prominent side effects from	Cancer patients with common mental disorders (CMD)				Cancer patients without common mental disorders (CMD				Total			
	yes	%	No	%	Yes	%	No	%	yes	%	No	%
Chemotherapy												
Radiation therapy												
Surgery												
Hormone therapy												
Combined												

Table 10 – Relationship of phase/stage of illness with CMD in Cancer attending adult OPD, SPHMMC Oncology OPD, 2020.

stage of cancer	Cancer patients with common mental disorders (CMD)		Cancer patients without common mental disorders (CMD)		Total	
	No	%	No	%	No	%
I						
II						
III						
IV						
V						

Table 11 – Pattern of family history of common mental disorders in cancer patients, adult OPD, SPHMMC Oncology OPD, 2020

Family History	Cancer patients with common mental disorders (CMD)		Cancer patients without common mental disorders (CMD)		Total	
	No	%	No	%	No	%
Mood disorders						
Yes						
No						
Total						

ASSURANCE OF PRINCIPAL INVESTIGATOR

I the undersigned agreed to accept all responsibilities for the scientific, ethical and technical conduct of the research project and provision of required progress report as per terms and conditions of research directorate and/or department of public health of SPHMMC**.**

Name of the student: Dr Haish Desta

Signature: _____

Date: _____

Approval of the Advisors

Name of advisor	**Date**	**Signature**
1. Dr Muluken Tesfaye	_____	_____
2. Dr Girma Mamo	_____	_____