ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

PREVALENCE AND FACTORS ASSOCIATED WITH CANCER RELATED FATIGUE AMONG CANCER PATIENTS ATTENDING TIKUR ANBESSA SEPCIALIZED REFERAL HOSPITAL, ADDIS ABABA, ETHIOPIA, 2020

BY: Sholaye Kassa

(BSC IN NURSING, MA in leadership and Good Governance)

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Prevalence and Factors Associated with Cancer Related Fatigue among Cancer Patients Attending Tikur Anbessa Sepcialized Hospital, Addis Ababa, Ethiopia, 2020

Advisors:

Daniel Mengistu RN, MSC, PHD fellow (Assistant Professor)

Sr. Emebet Berhane (RN, MSc, PhD fellow)

ADDIS ABABA, ETHIOPIA

June, 2021

STATEMENT OF DECLARATION

I under sign below, to declare and affirm that this thesis is my own work that is prepared by following all ethical principles in data collection and using scientific methods for data analysis and completion of this thesis. All scholarly matters that used in the thesis have been given recognition through citation. Every effort has been made to avoid plagiarism in the preparation of this thesis. This thesis is not submitted to any other institution previously for the award of academic purposes.

Principal Investigator

Name of the student: Sholaye Kassa Signature: ---------- Date: ----------

Advisors

Name of the advisor: Daniel Mengistu Signature: ---------- Date: ---------

Name of the co-advisor: Emebet Berhane Signature: ---------- Date: ----------

ACRONYMS AND ABBREVIATION

BC	Breast cancer
BCS	Breast cancer survivors
BFI	Brief fatigue inventory
CRF	Cancer-related fatigue
FACIT	Functional Assessment of Chronic Illness Therapy
HADS	Hospital anxiety and depression scale
ICD	International Classification of Diseases
NCCN	National Comprehensive Cancer Network
QoL	Quality of life
USF	University of South Florida

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Abstract

Background: *cancer related fatigue is a, subjective sense of physical, emotional, and/or cognitive tiredness related to cancer that is distressing, persistent and not proportional to recent activity and interferes with usual functioning. Though, the percentages of patients who experience cancer related fatigue vary across studies ranging from 25% to 100% depending on the type of treatment and the type and stage of cancer. However, there is limited information at the study area as well as at national level about the current topic.* ***Objective:*** *To assess the prevalence and factors associated with cancer related fatigue among cancer patients attending Tikur Anbessa Specialized hospital in Addis Ababa, Ethiopia, 2020.* ***Methods:*** *An institution-based cross-sectional study was conducted at Tikur Anbessa Specialized Hospital from January 20th to February 20th of 2021. It included 406 samples of cancer patients by systematic random sampling technique. Data was collected by using pre-tested structured face to face interviewer and collected after obtaining written consent from the respondents. The data was entered into Epi-info version 7 and analyzed using SPSS Version 25. Bivariate and multivariate analysis was done. AOR and 95% CI was used to see the strength of the association. Independent variables with P-value < 0.05 was considered as statistically significant association with the outcome variable.* ***Result:*** *A total of 383 participants were included which makes the response rate 94.3%. The mean age of the respondents was 46.91 (SD=14.70) years. Among the respondents, the majority were 51 years and above (42%) and 61.6% of them were female. Almost three-fourth of the patients were married (70.2%). The prevalence of cancer related fatigues was 72.3%. Patients who were female (AOR 4.80), single (AOR 5.43), depression (AOR 5.30) and anxiety (AOR 2.88) had statically significant association with cancer related fatigue.*

Conclusion & recommendation: *huge portion of the patients were experienced cancer related fatigues. So, health care providers working at oncology units should have a continuous/routine screening for cancer related fatigues that will help for early identification patients with the problem and manage it accordingly. This will have its own contribution in improving the health condition of the patients.*

Keyword: *cancer related fatigue, cancer, patient, prevalence*

1. INTRODUCTION

1.1. Background

The traditional definition of cancer survivor is any living person who has ever received a diagnosis of cancer, beginning at the time of diagnosis until the end of life is reached (1). The American Cancer Society estimates that over 1.3 million individuals were diagnosed with cancer in 2005 (2) and a similar number of new cases are expected in 2006 (3), whereas it has estimates that there will be 18 million cancer survivors in the United States alone by 2022 (4). Further, the occurrence of cancer has increased recently, and developing countries account for approximately 57% of cancer cases worldwide (5). With the continued development of cancer diagnostic and therapeutic technologies, patient survival duration has been significantly extended (6). Recognizing that survivorship among cancer patients is a multistage process with acute, extended, and permanent phases. During this process, patients in the cancer journey might experience a plethora of symptoms and therapy-related side effects and cancer-related fatigue (CRF) is one of the most common symptoms (6).

According to the National Comprehensive Cancer Network (NCCN), CRF is defines as "a distressing, persistent, subjective sense of physical, emotional, and/or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning" (6). Whereas, according to NANDA-I, fatigue is defined as an overwhelming sustained sense of exhaustion and decreased capacity for physical and mental work at the usual level (7).Also, it was accepted by the International Classification of Diseases (ICD), Tenth Revision, and Clinical Modification in 1999; this acceptance has improved the ability to characterize the incidence and prevalence of CRF (8).

CRF is also described as a subjective sensation or an objective decrement of performance associated as a common symptom of various chronic diseases. With respect to cancer patients, it is commonly defined as a self-recognized phenomenon that is subjective in nature and experienced as a feeling of tiredness or lack of energy that varies in degree, frequency and duration (9,10). CRF is typically not relieved

simply by rest and this could be simply helping to distinguished it from many non-cancer-related forms of fatigue (11). Also, it differs from the tiredness because it is more intense, persists after adequate rest and hampers the patients in their daily activities (12, 13).

Though, the percentages of patients who experience CRF vary across studies from 25% to 100% depending on the type of treatment and the type and stage of cancer (14, 15,16,17), majority of cancer patients are suffering from fatigue and it is experienced in all stages of the disease trajectory (16, 18). CRF is more troublesome and has a greater negative influence on quality of life and daily activities of patients with cancer than any other cancer-related symptom, including pain, nausea and depression (19). It forces them to change their daily routine and limits them in physical activities (e.g. walking distances), cognitive activities (e.g. concentrating) as well as social activities (e.g. taking care of the family) (19). So, early identification and management of CRF has its own contribution in improving the patients' quality of life (20).

1.2 Statements of the Problem

Cancer related fatigue is the most frequent symptom occurring during or after medical treatment. Globally, around 50%–90% of the cancer patients experiences the difficulties of cancer-related fatigue (21) and several epidemiological studies reveal prevalence rates ranging from 59 to 100% (22, 23) or 30%–70% (24). Also, some studies reported that up to 40% of patients mentioned fatigue at diagnosis of cancer, although treatment-associated fatigue is experienced by the majority of patients with cancer which 90% of patients receiving radiotherapy and 80% of patients receiving chemotherapy experience CRF (25, 26). But these was in some extent higher than the other study finding which reported that the prevalence of cancer-related fatigue was 76% in patients receiving chemotherapy (27) and 68% in patients receiving radiotherapy (28).In addition, based on the other study finding one-third of the cancer survivors suffer from fatigue, even five to ten years after diagnosis (29) but it may be around 74% in patients with advanced cancer(19) and increasing up to 88% in the last two weeks of life (19).

CRF is caused by the cancer itself and often persists following cancer surgery and may intensify during chemotherapy and radiation therapy, morphing into cancer therapy related fatigue and it may continue after cancer treatment has been completed (30). Demographic and contextual factors such as young age, being single and having a low income have been associated with increased risk of CRF.As well as medical and psychosocial factors, including multiple comorbidities, physical inactivity, elevated body mass index, pre-treatment fatigue, depression, early stress, sleep disturbance, dysfunctional coping, and loneliness, have all been associated with increased risk of cancer related fatigue (31). Pre-treatment fatigue has been also identified as the most consistent predictor of post-treatment fatigue (32). In addition, tumor and treatment factors can also impact risk of cancer-related fatigue. Patients with higher cancer stage, those treated with combination modalities that include surgery and radiotherapy with or without hormone therapyare at increased risk of fatigue. On the hand, patients treated only with local strategies such as surgery with or without radiotherapy are at lower risk of severe fatigue (33,34, 35).

Almost all fatigued cancer patients report limitations in daily activities due to CRF (27). Cancer-related fatigue significantly impairs patients' quality of life and ability to function that 91% of cancer patients with fatigue reported that fatigue prevented them from leading a 'normal' life, 88% reported an alteration in their daily routine, and of patients who were employed 75% changed their employment status because of their fatigue (36). In addition to interfering with patients' quality of life and functional status, it may also disrupt treatments for cancer. It also impacted patients' concerns regarding their mortality or compromised their hope of fighting the illness (37).

Further CRF profoundly limits their personal and social roles within their family and community, resulting in a significant decrement in overall quality of life (QoL). It is also associated with significant levels of psychological distress, and it imposes a financial burden by limiting a patient's ability to work effectively. This economic effect can extend to caregivers and family members, who may have to reduce their working hours in order to provide care for a patient with CRF (38).

Patients experiencing the most severe fatigue and greater constellation of symptoms (pain, nausea, anorexia, depression, anxiety, or sleep disturbances) have derived the most benefit from psychostimulants, CNS-stimulants, and erythropoiesis-stimulating agents (39, 40). Corticosteroids are the most frequently used drug (32%–80%) for relief of adverse symptoms like CRF in cancer patients (41).Also, exercise programs, psychosocial interventions, psychological, hormonal treatments such as human growth hormone, androgens, anti-inflammatory medications, and dietary interventions other options to manage CRF (42, 43, 44).

Further, consensus exists among major cancer societies that cancer-related fatigue should be managed in a multidisciplinary setting and with a comprehensive approach. This includes providing specific counseling and being able to refer patients to professionals with adequate expertise to address such symptoms, including physical therapists, psychologists, behavioral therapists, nutritionists, and social workers (45). Therefore, healthcare providers need to focus on CRF and have to develop routine screening for fatigue to assess patients throughout the cancer trajectory (46). However, I was not able to found published data which addressed the prevalence and factors associated with CRF at the study area as well as at national level. Therefore, the current study is aimed to fill the gap by assessing the prevalence and factors associated with CRF among cancer patients.

1.3 Justification/ Significance of the study

As per my review of literature, I could find any published data regarding the idea of the current research topic. Therefore, the current study will add information about the prevalence of cancer related fatigue among cancer patients attending a tertiary hospital as well as factors associated with CRF.

The information of the current study finding might help the policy makers such as Ministry of Health and other relevant stakeholders to develop a local guideline, appropriate policy and plan. This might help the patients to be address their fatigue early by their clinicians. It may serve as a clinical reference for health care providers working at oncology units to provide comprehensive treatment, planning interventions and effective strategies for maximizing long-term beneficence of patients with cancer. Further it might serve as a reference for future public health and clinical researches.

2. LITRATURE REVIEW

2.1 Overview of Cancer Related Fatigues

Recently, cancer cases have increased worldwide, and due to its negative effect like cancer related fatigue, patients' quality of life has been disturbed (5, 6). Cancer related fatigue is an important problem in the majority of cancer patients especially during their treatment (47). For that matter, well developed countries have developed several guidelines have been developed in well developed countries to improve the management of cancer related fatigue, for example the guidelines of the National Comprehensive Cancer Network (United States) (19**)** and the Dutch Comprehensive Cancer Network (48**)**. These guidelines provide information on the nature of cancer-related fatigue, prevalence, reflect on the mechanisms involved in its pathogenesis, provide recommendations on its assessment and give an overview of the treatment options available (49).

2.2 Prevalence of Cancer Related Fatigue among Cancer Patients

The cross-sectional analysis study which was done to assess CRF and physical activity among 267 black women survivors of breast cancer at the Sisters Network Inc which is the largest black/African-American breast cancer survivorship organization in the United Statesby using a validated tool of fatigue instrument which was Functional Assessment of Chronic Illness Therapy (FACIT) reported that 56% of the women had experienced fatigue(50).

The other case-definition clinical interview approach study which was conducted to identify the prevalence of cancer-related fatigue (CRF), demographic, clinical and psychosocial predictors of subsequent CRF, and psychosocial factors associated with concurrent CRF among 288 women undergoing adjuvant therapy for early-stage breast cancer from two outpatient clinics of H. Lee Moffitt Cancer Center and Research Institute at the University of South Florida (USF; Tampa, FL) and the Markey Cancer Center at the University of Kentucky (UK; Lexington, KY) mentioned that CRF prevalence at the baseline and post-treatment assessments was 10% and 26%, respectively(51).

The meta-analysis study which was done to examine demographic, disease-related, and treatment-related risk factors, estimate the prevalence, and describe the course of severe fatigue following breast cancer (BC) treatment among 12 327 breast cancer survivors (BCS) reported that the pooled prevalence of severe fatigue was 26.9% (52). The other study that was done to examines the prevalence of CRF and explores its impact on patients' functioning and quality of life (QoL) described that 76% of the study participants had experienced fatigue for at least a few days a month during their last course of chemotherapy, more than half of the patients experienced fatigue at least once a week and 30% of the patients experienced fatigue on a daily basis (38).

Another systematic review which was conducted to assess evidence report on the occurrence, and treatment of fatigue in cancer patients found that the occurrence of cancer-related fatigue was range from 4% to 91% (42). The other systematic review study mentioned that more than 60% of the individuals with cancer experiences fatigue (53).

The cross-sectional study which was done to analyze the prevalence of symptoms and their relationship with the quality of life of cancer patients undergoing chemotherapy and radiation therapy in the Out-patient Chemotherapy and Radiation Therapy units of ICESP of Brazil among 107 patients described that CRF was reported on 76.6% of the study participants(54).

A prospective cohort study was conducted to detected incidence, timing of onset, duration of CRF, impact on QoL and psychological distress in Italy among 78 early breast cancer patients undergoing chemotherapy (CT) followed or not by hormonal therapy. Fatigue was investigated by using Functional Assessment of Cancer Therapy-Fatigue (FACT-F) subscale mentioned that low fatigue levels were identified after surgery (9%), increasing during (49%) and at the end of CT (47%), maintaining after 1 year (31%) and declining up to ten years of follow-up (55).

The cross-sectional descriptive study which was done among 148 randomly recruited prostate cancer patients from the Out-Patients Oncology Clinics of two public hospitals in Cyprus by having the aim of exploring CRF and its impact on QoL and by using of the

Cancer Fatigue Scale (CFS) that assesses fatigue reported that 66.9% of the patients experienced CRF (46).

A descriptive cross-sectional study was conducted among 154 volunteer women with gynecologic cancer visited the Gynecologic Oncology Polyclinic at a university hospital in Istanbul to identify quality of life and fatigue levels and the affecting factors in gynecologic cancer patients by using functional assessment of cancer therapy-general (FACT-G) described that according to the Piper Fatigue Scale, the total fatigue score was mild, 3.5 ± 2.4 but the total fatigue scores were found to be high in metastatic cancers (56).

A Multicenter Observational Study which was done to evaluate fatigue, pain, and quality of life in cancer patients at the point of intervention by palliative care teams in Japan by recruited 183 cancer patients who were referred to palliative care teams at three institutions by using the Brief Fatigue Inventory, Brief Pain Inventory, and European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 15-Palliative mentioned that the mean global fatigue score was 4.1, and 9.8%, 30.6%, 38.7%, and 20.8% of patients' fatigue severity was classified as none (score 0), mild (1–3), moderate (4–6), and severe (7–10), respectively (57). The other preliminary study which was done in Japan to assess fatigue and its associated factors among 455 ambulatory cancer patients by using the Profile of Mood States (POMS) scale to assess level of fatigue revealed that the fatigue experienced by 41% of cancer patients (58).

An exploratory study which was conducted to explores the prevalence of Cancer related fatigue among 89 purposively selected female Indian ovarian cancer patients receiving chemotherapy at Rajiv Gandhi Cancer Hospital and Research center, New Delhi India and the assessment of the level and extend fatigue was taken using the 16-item Multidimensional Assessment of Fatigue (MAF) scale reported that 36(40.5%) of them had moderate level of fatigue requiring clinical intervention for it and 41(38%) had extreme level of fatigue, needful of immediate clinical intervention (59).

A cross-sectional study was done to determine the prevalence of and factors associated with CRF among cancer patients in eastern China, regardless of their diagnoses by using

brief fatigue inventory to assess level of fatigue revealed that out of a total population of 1,938 cancer patients, 52.07% of them reported clinically significant fatigue (score $4 on Brief Fatigue Inventory) (60). Another, cross-sectional study that was performed to investigates the prevalence and severity of fatigue and identifies the demographic, clinical, and lifestyle factors associated with cancer-related fatigue among 371 patients were diagnosed with breast cancer and/or received treatment for breast cancer at the Tumor Hospital of Harbin Medical University, Harbin, China by using the 11-point scale and Visual Analog Scale (VAS) to quantify the level of fatigue experienced by the patients mentioned that 189 (60%) of them had experienced or were experiencing CRF during endocrine therapy (47).

2.3 Factors Associated with Cancer Related Fatigues

2.3.1 Sociodemographic related factors

Different studies of identified a variety factors which has an association with level of CRF. For instance, the study which was done in Japan identified that sex, education, employment status, the number of persons in the household and performance status of the patient has a statistically significant association with CRF (58). In addition, being in age category of 58 years or older (60) and having poor economic condition (B=11.043) (56) are mentioned as a contributing factors for cancer related factors. Also, those survivors living without a partner (RR, 0.96) are more likely of at risk to experience CRF (52).

2.3.2 Clinical Related Factors

Regarding clinical and treatment related characteristics of patients, receiving of adjuvant chemotherapy (51), and higher clinical stage of cancer have positively associated factors that could increase the odds of CRF (60). As the other studies finding indicated that, clinical stage (AOR, 11.72), menopausal status (AOR, 7.33), duration of endocrine therapy (AOR, 5.49), and use of medicine (B=1.173) were more related with the development of CRF (56). Also, stage II or III cancer (RR, 1.18), and survivors treated with chemotherapy (RR, 1.12) were at higher risk for severe fatigue than survivors with stage 0 or I cancer and without chemotherapy. Survivors treated with surgery (RR, 1.18), radiotherapy and chemotherapy, and survivors with this combination plus hormone

therapy (RR, 1.38) were at higher risk than survivors with other treatment combinations. Survivors treated with surgery (RR, 0.83) and surgery plus radiotherapy (RR, 0.87), were at lower risk than survivors with additional treatments(52).Duration of the follow-up is also another factor for the development of CRF (55),

2.3.3 Psychosocial and Healthy Behavioral Related Factors

Further, factors such as loss of appetite (37.4%), anxiety (20%), depression (15%) (51, 54,55, 57, 58, 61), dependency on others, loss of power over decision making, daily living disruption (48**),**relaxation exercise (standardized mean difference (SMD) of −0.77), massage (SMD, −0.78), cognitive– behavioral therapy combined with physical activity (SMD, −0.72), and resistance training (SMD, −0.53) (62**)** has a statistically significant association with experience of cancer related fatigue. Some studies were also identified some determinant factors which had a statistically significance association between cancer related fatigue and the explanatory variables such as never engaging in physical exercise (60), diet (AOR, 0.242) and BMI (body mass index) (AOR, 3.20) (47) as well as physical activity (AOR, 2.76)(47) and the level of activity (B=1.272) (57).

2.4 Conceptual Frameworks

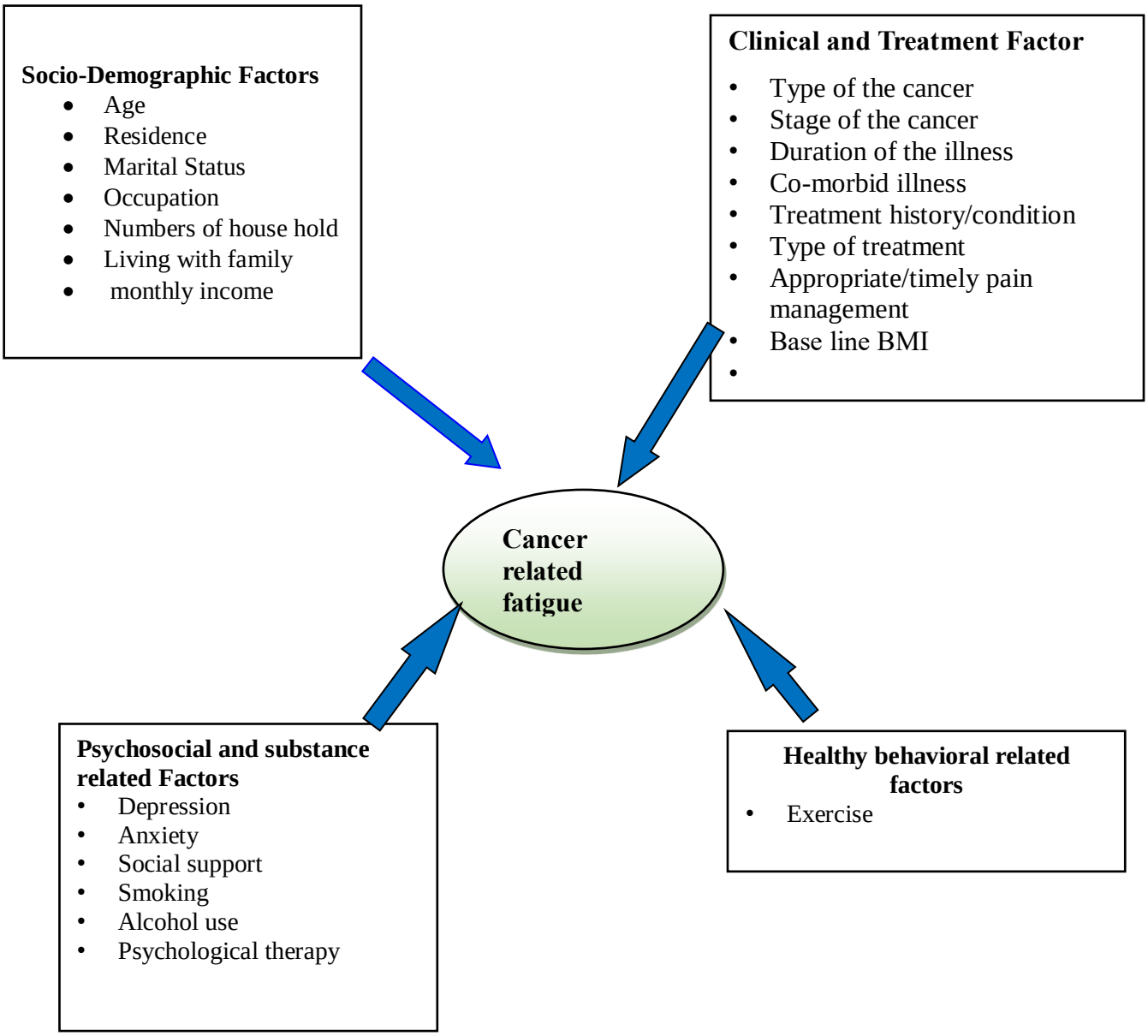

Figure 1Conceptual framework which shows the association between the occurrence of CRF and different factors adopted from different literatures.

3. OBJECTIVE OF THE STUDY

3.1. General Objective

- To assess the prevalence and factors associated with cancer related fatigue among adult cancer patients attending Tikur Anbessa Specialized hospital in Addis Ababa, Ethiopia, 2020

3.2. Specific Objectives

- To determine the magnitude rate of cancer related fatigue among cancer patients attending Tikur Anbessa Specialized hospital
- To identify factors associated with cancer related fatigue among cancer patients attending Tikur Anbessa Specialized hospital

4. METHODS

4.1. Study Area and Period

The study was carried out in Black Lion Tertiary Hospital from December 20thof 2020 to January 20th of 2021, Addis Ababa, Ethiopia. A simple random sampling technique was employed to select the study setting from the available listed federal public health institution which are currently providing cancer treatment in Addis Ababa. Based on the information posted on the website of the institution, Tikur Anbessa Specialized Hospital (TASH) was opened in 1972; the hospital became the only site for training Medical Doctors. TASH has 400 doctors, 800 nurses and 115 other health professionals dedicated to providing health care services. It provides a variety of health care related service at different departments and units and oncology unit of these units. The oncology department staffed by many health professionals from various disciplines including physicians, nurses, oncology nurses, medical oncologists, specialized surgical oncologist, pathologists, hematologists, radiotherapists, pediatric oncologist, general and specialist surgeons, CT and MRI scanner and cobalt radiotherapy unit. As the information which I gather from the unit, currently the oncology unit providing management service for more than 10,000 cancer patients including chemotherapy and radiotherapy.

4.2. Study Design

An institution-based cross-sectional study design was employed.

4.3. Source and Study Population

4.3.1. Source Population

All adult cancer patients attending at Tikur Anbessa Specialized Hospital were source of populations.

4.3.2. Study Population

All adult cancer patients attending Tikur Anbessa Specialized Hospital who was available during the study period were the study populations.

4.4 Sample Size Determination

The sample size was determined by using the single population proportion formula with the assumption of 60% of the study participants experienced CRF in Tumor

Hospital of Harbin Medical University, Harbin, China (47), considering 95% confidence interval and 5% marginal error, the desired sample size (n) was calculated as follows:

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

Where

- n= required sample size
- Z α /2 = Standard normal distribution at 95% confidence interval (Z=1.96and α=0.05)
- d = Margin of error = 5% = 0.05
- P = 60% is proportion populations who had experienced CRF obtained from a study in Tumor Hospital of Harbin Medical University, Harbin, China (47)

$$n = \frac{(1.96)^2\ 0.60\ (1-0.60)}{(0.05)^2} = 368.97 \sim 369$$

Considering 10% (369*0.1= 36.9~37) non-response rate, total calculated sample size was 406**.**

4.5 Sampling Procedure

A simple random sampling technique was employed to select the study setting from the available listed federal public health institution which are currently providing cancer treatment in Addis Ababa. Further systematic random sampling technique was used to select the study participants. Based on the Tikur Anbessa Specialized hospital report a total of 2000 patients are expected to visit and get service at the institution per-month that means on average of 91 patients per day was received the service which includes new and on follow up. 18 patients are expected to be interviewed per day for a total of 22 working days (406/22=18). So, the sampling fraction was 91⁄ 18=5 which means a sampling interval of 5. However, Tikur Anbessa Specialized Hospital has two branches of cancer treatment centers such as the hospital itself and cancer center found at Lideta Sub city. So, proportional allocation was used to get the sample from each branches and based on their monthly performance 1200 and 800 patients are expected to visit the branches per

month respectively. Therefore, 244 from the hospital and 162 patients from the cancer center branch was included to the study. The first individual was selected by lottery method and the others were selected at a regular interval by systematic random sampling and they were interviewed by data collectors.

K=N/n=55/11=5 for TikurAnbessa Specialized Referral Hospital

K=N/n=36/7=5 for cancer center branch

4.6Inclusion and Exclusion Criteria

4.6.1Inclusion Criteria

- Adult cancer patients who had confirmed cancer at least one month before the data collection period

4.6.2 Exclusion Criteria

- Patients who are critically ill and unable to respond due to the illness during the data collection period were excluded

4.7 Data Collection Procedures

4.7.1 Data Collection Instrument

A structured written questionnaire was used to collect the data on socio-demographic characteristics (age, sex, religion, education, occupation, and marital status), clinical related factors (duration of illness, stage of cancer), psychosocial related factors (depression, anxiety, social support) and CRF. CRF was assessed by using BFI which is a questionnaire, originally developed in English, for which validity and reliability have been verified. It is designed to assess fatigue in cancer patients. It consists of 10 items, which are rated using Likert scales ranging from 0 to 10. Average scores for these 10 items are used as global fatigue scores (GFSs); scores of 0, 1–3, 4–6, and 7–10 are categorized as no fatigue, mild, moderate, and severe, respectively (63). BFI is a 10 item validated and an excellent assessment tool with adequate psychometric properties for use in both clinical management and symptom research of CRF in Ethiopian cancer patients. The BFI had an overall Cronbach's alpha of 0.97. The

results of the principal axis factor analysis suggested a 1-factor solution explaining 78.4% of the variance, supporting the hypothesis of unidimentionality of the BFI-Am (64). Therefore, I choose this tool to assess CRF for the current research.

HADS was used to measure the depression and anxiety level. HADS is a 14 item questionnaire, commonly used to screen for depression and anxiety. The 14 item can be separated in to two 7 item subscales for anxiety and depression. It is validated in Ethiopia and internal consistency is 0.78 for anxiety. The scale used a cut off score for anxiety of greater than or equal to 8(65**)**.

4.7.2. Data Collection Procedure

First the questionnaire was developed in English, and then it was translated to the local language of Amharic by the researcher. For its consistency the Amharic and English version was sent to advisors for their approval. Amharic version written questionnaire was used to collect the data for the current research. The researcher was recruited three diploma clinical nurses to collect the data and one BSC nurse for supervisor. Training was given for one day by the researcher on how they were used of the questionnaire, how to check its completeness, and the ethical principles of privacy and confidentiality and data management prior to their involvement with data collection and then data was collected for thirty days.

4.8 Study Variables

4.8.1 Dependent Variable

- Cancer related fatigue

4.8.2 Independent Variables

- Socio-demographic characteristics
  - Age
  - Sex
  - Residence
  - Marital Status
  - Education
  - Occupation
  - Numbers of house hold
  - Living with family
  - monthly income
- **Clinical and Treatment Factor**
  - Type of the cancer
  - Stage of the cancer

- Duration of the illness
- Co-morbid illness
- Treatment history/condition
- Type of treatment
- Appropriate/timely pain management

➢ **Psychosocial and substance related Factors**

- Depression
- Anxiety
- Social support
- Smoking
- Alcohol use
- Psychological therapy

➢ **Healthy behavioral related factors**

- Exercise

4.9. Operational Definition

Cancer Related Fatigue (CRF); was assessed by using Brief Fatigue Inventory (BFI) which consists of 9 items, which are rated using Likert scales ranging from 0 to 10 with the average scores for these 9 items are used as global fatigue scores (GFSs); scores of 1–3, 4–6, and 7–10 are categorized as mild, moderate, and severe, respectively. Finally, it was classified in to two which means those who were scored zero were categorized under no CRF, while those who were scored one and more were classified experienced (yes) CRF (63).

Depression; depression was measured by using seven items (depression sub scale) HADS with cut-off points of greater than or equal to 8 scores (65)

Anxiety; anxiety was measured by using seven items (anxiety sub scale) HADS with cut-off points of greater than or equal to 8 scores (65)

Social support; individual who were scored 3-8 poor, 9-11 moderate and 12-14 strong social support on Oslo 3-item social support scale (66)

4.10 Data Quality Control Issues

The questionnaire was translated to Amharic version and necessary feedback was offered to the data collectors at the end of each collection. Data quality control issue was insured by conducting pre-test among five percent total samples obtained from patients attending at SPHMMC oncology unit. Training was given to the data collectors and supervisors on

the data collection tool and sampling techniques by the researcher. Supervision was held regularly during data collection period both by the researcher and supervisor. The collected data was checked on daily basis for completeness and consistence.

4.11 Data Processing and Analysis

All questionnaires were checked for completeness and consistency of responses manually. After cleaning data was entered, in to EPI info version 7 then it was exported to SPSS versions 25 for analysis. Descriptive statistics (frequencies and percentages) was used to explain the study participant in relation to study variables. Bivariate and multivariate analysis was used to determine the presences of statistically significant associations between the independent variables. The strength of the association was presented by odds ratio and 95% confidence interval. A p value of < 0.05 on multivariate analyses was considered as statistically significant.

4.12. Ethical Issues

Ethical clearance was obtained from Addis Ababa University Ethical Review Committee. In addition, permission letter was obtained from the study site. Prior to data collection, written consent was obtained from all study participants and were informed them that participation is voluntary and they can withdraw themselves from the study at any time. Data was kept confidential and anonymous and it was used only for the research purpose. The study participants were informed that there was no harm due to participating in the study. The confidentiality of the study participants' related data was maintained by avoiding possible identifiers such as name of the participants. Only identification number was used as a reference. Those who were scored 8 and more for anxiety and depression tool were link to psychiatry unit of the institution.

5. RESULT

5.1 Socio-Demographic Characteristics of the Respondents

A total of 383 participants were included in the study which makes the response rate 94.3%. The mean age of the respondents was 46.91 (SD=14.70) years. Among the respondents, the majority were 51 years and above which accounts 42% and 236 that means 61.6% of them were female. Almost three-fourth of the patients were married (70.2%), and one hundred thirty- nine (36.3%) of them had no formal education and were unable to read and write in educational status. Only 15.7% which accounts 60 of the study participants were working as a civil servant whereas the remain are engaged in different occupations as well as jobless. Also, 52.2% of the current study participants were from urban residence. (Table 1)

Table 1 Descriptions of Socio demographic factors among adult cancer patients of outpatient attendants of Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia 2021

Variables (n=383)		Frequency	Percent (%)
Age	</=30yrs	60	15.7
	31-40 years	78	20.4
	41-50 years	84	21.9
	51 and above	161	42.0
Sex	Male	147	38.4
	Female	236	61.6
Marital status	Married	269	70.2
	Single	59	15.4
	Divorced	18	4.7
	Widowed	37	9.7
Educational status	unable to read and write	139	36.3
	able to read and write	26	6.8
	primary (1-8)	86	22.5
	secondary (9-12)	84	21.9
	certificate and above	48	12.5

Occupation	Unemployed	38	9.9
	civil servant	60	15.7
	private employee	45	11.7
	Merchant	45	11.7
	daily laborer	5	1.3
	house wife	105	27.4
	Others*	85	22.2
Residence	Urban	200	52.2
	Rural	183	47.8

Other* occupation; student, farmer, soldier, pensioner

5.2 Clinical and Treatment related characteristics of the respondent

The clinical and treatment related response of the respondents showed that one-fourth of the patients had cervical cancer (25.1%) and around one hundred ten (28.7%) of them were in clinical cancer stage four. And almost three-fourth of the study participants had a year and less duration of illness since it was confirmed as a cancer. With respect to treatment, the majority which 254 966.3%) of them were started treatment during the data collection period and 65.4% which accounts a total of 166 patients from those who are already started treatment were on chemotherapy treatment option. The majority of the patients had no any confirmed co-morbid illness with percent of 79.9%. (Table 2).

Table 2 Clinical and treatment related characteristics of adult cancer patients of outpatient attendants of Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia 2021

Variables		Frequency	Percent (%)
Type of cancer	Breast cancer	52	13.6
	cervical cancer	96	25.1
	blood cancer	67	17.5
	bone cancer	28	7.3
	Gastric cancer	19	5.0
	liver cancer	34	8.9
	Prostate cancer	19	5.0
	skin cancer	18	4.7
	Other specify[1*]	50	13.1
Stage of the disease	stage 1	100	26.1
	stage 2	104	27.2
	stage 3	64	16.7
	stage 4	110	28.7
	Other[2*]	5	1.3
Duration of illness	1 year and below	276	72.1
	1 year and 1 month up to 2 year	61	15.9
	2 year and 1 month up to 3 year	14	3.7
	Above 3 years	32	8.4
On treatment	Yes	254	66.3
	No	129	33.7
Type of treatment	not started	129	33.7
	Chemotherapy	166	43.3
	Radiotherapy	66	17.2
	supportive therapy	4	1.0
	other specify[3*]	18	4.7
Diagnosed comorbid illness	Yes	77	20.1
	No	306	79.9
Type of comorbid illness (n=77)	DM	28	7.3
	Hypertension	26	6.8
	HIV/AIDS	17	4.4
	Liver disease	2	.5
	other specify[4*]	4	1.0

Other cancer[1*]- lung cancer, cancer of the head, esophagus, rectal, thyroid, nasal cancer
Other[2*]- has no stage

Other specify[3*]- combination of chemotherapy and radiotherapy

Other specify[4*]-hemorrhoid, chronic skin disease

5.3. Psychosocial, Substance use and physical activity related characteristics of the respondents

The current study also showed that more than half of the study participants had good level of social support. Just 332 (86.7%) and 369 (96.3%) of them had no history of ever smoking and smoking history in the last one month of prior to the period of data collection respectively. Further, 257 (76.1%) and 372 (97.1%) of the patients were mentioned no for the question of ever drinking and history of drinking the last one month. Even though 144 which accounts 37.6% of patents have did a relaxation technique like walking, only 10.4% of them have doing a physical exercise. (Table 3)

Table 3 Description of psychosocial, substance use and physical activity related characteristics adult cancer patients of outpatient attendants of Tikur Anbessa Hospital, Addis Ababa, Ethiopia 2021

Variables		Frequency	Percent (%)
Social support	poor social support	98	25.6
	intermediate support	69	18.0
	good support	216	56.4
Ever smoking	Yes	51	13.3
	No	332	86.7
Smoking within a month	yes	14	3.7
	no	369	96.3
Ever drink of alcohol	yes	126	32.9
	no	257	67.1
Drink in the last one month	yes	11	2.9
	no	372	97.1
Do physical exercise	yes	40	10.4
	no	343	89.6
Do relaxation technique like walk	yes	144	37.6
	no	239	62.4

5.4 Depression and Anxiety related response

A total of 252 patients were experienced depression based on the hospital anxiety and depression screening tool and 237of them had also anxiety based on the same assessment tool. (Fig 2)

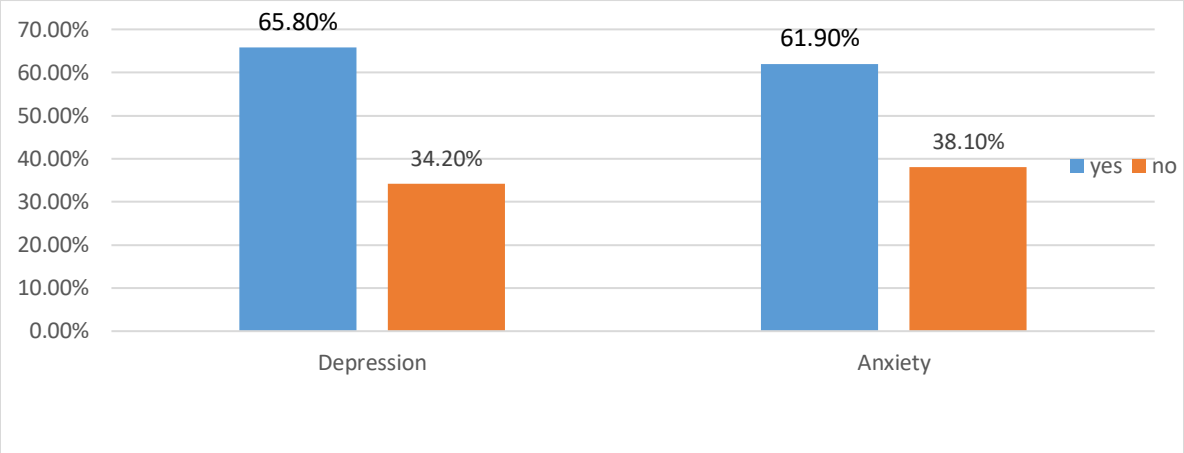

Figure 2 prevalence of depression and anxiety among adult cancer patients attending Tikur Anbessa hospital in Addis Ababa, Ethiopia, 2020

5.5 Patients Level of Experienced Cancer Related Fatigue

This study revealed that 72.3% (95% CI, 67.6, and 76.8) of patents had cancer related fatigues and 27.7% (CI 23.2, 32.4) of them were not complaint cancer related fatigues which interferes with their day to day activity. (Fig.3)

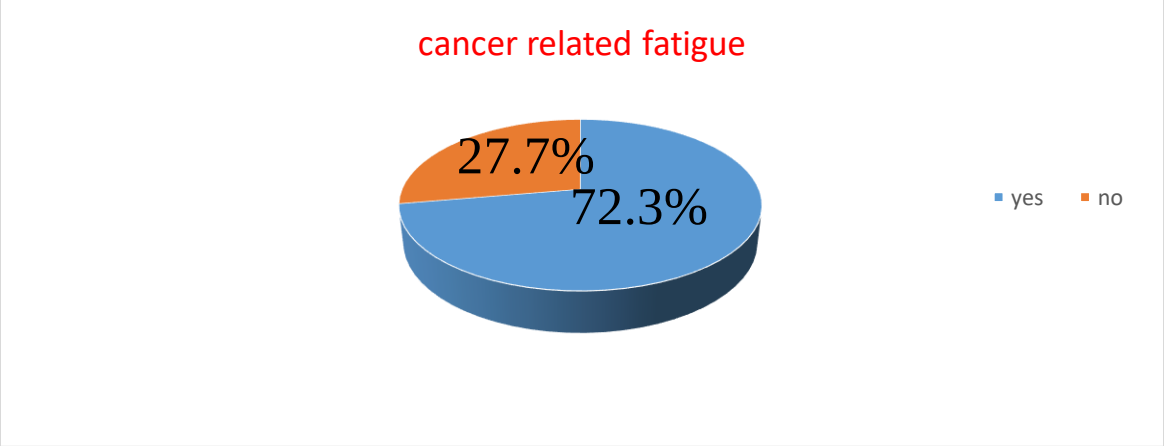

Figure 3 prevalence of cancer related fatigues among adult cancer patients attending Tikur Anbessa hospital in Addis Ababa, Ethiopia, 2020

With respect to the severity of the fatigue, almost all that 270 of the patients from the total 277 patients who complained cancer related fatigue during the study period which accounts 97.5% had severe level of CRF. (fig 4)

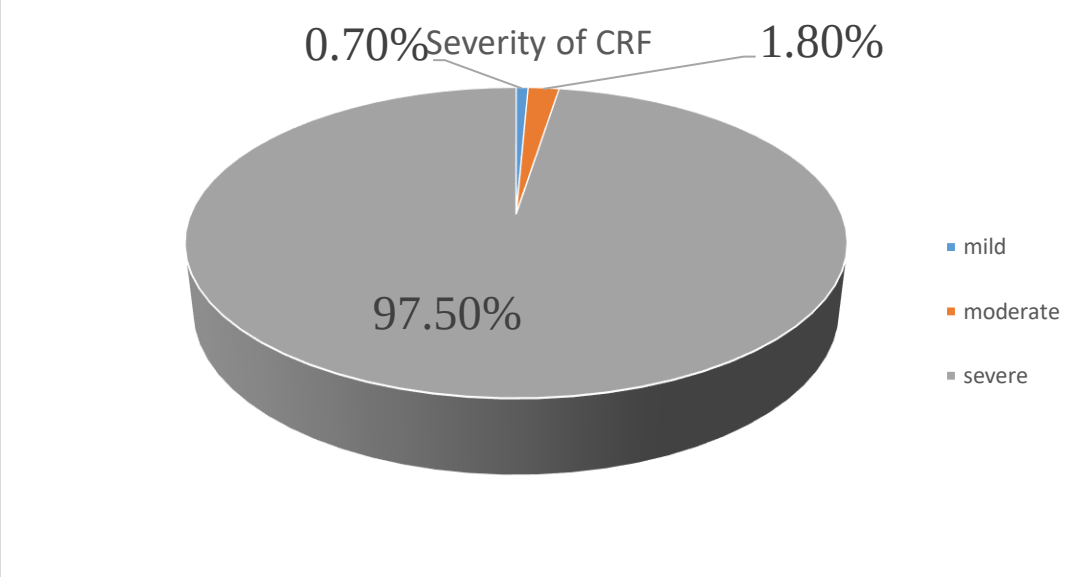

Figure 4 severity status of CRF among adult cancer patients attending Tikur Anbessa hospital in Addis Ababa, Ethiopia, 2020

5.6 Factors associated with cancer related fatigue among adult cancer patients

5.6.1 Bivariate Analysis

For each explanatory variable, bivariate analysis was done and socio-demographic factors such as age, sex, marital status, level of education and occupation; and with respect to clinical factors such as type of cancer, being on treatment, type of treatment and presence of co-morbid illness; further, psychological and behavioral factors such as history of ever drinking and drink in the last one month, anxiety and depression were variables fulfilled the minimum requirement at p-value < 0.05 significance level for further multivariate logistic analysis.

5.6.2 Multivariate Logistic Analysis

Multivariate logistic regression analysis was done and it showed that the model adequately fits the data for CRF from Hosmer and Lemeshow test was 0.480 of significance. During the multivariate analysis some factors had statically significant association such as sex (being female), marital status (being single and divorced), occupation (being civil servant, private employee, merchant, house wife and had other occupational status), type of cancer (had liver cancer) and receiving treatment for cancer. Further, factors like having a history of alcohol drink in the last one-month, experiencing anxiety and depression had statistically significant association with experience of cancer related fatigue during multivariate analysis. (Table 4)

By using multivariate logistic regression, patients who were female (AOR 4.80, 95%CI (1.64, 14.05)), single (AOR 5.43, 95%CI (1.20, 24.44)) and divorced patients (AOR 0.06, 95%CI (0.01, 0.35)) had statistically significant association with CRF. In addition, those patients with an occupation status of civil servant (AOR 6.35, 95 CI (1.21, 33.44)), private employed (AOR 27.58, 95 CI (5.48, 140.18)), merchant (AOR 26.29, 95%CI (4.50, 153.67)), house wife (AOR 16.52, 95 CI (4.61, 59.18)) and had other occupational status (AOR 5.49, 95 % CI 1.37, 22.08)), diagnosed as liver cancer (AOR 5.32, 95% CI (1.05, 26.92)), being on cancer treatment (AOR 10.88, 95% CI (1.21, 97.71)), drinking alcohol in the last one month (AOR 0.05, 95% CI (0.01, 0.45)), depression (AOR 5.30, 95% CI (2.30, 12.23)) and anxiety (AOR 2.88, 95% CI (1.35, 6.16)) also had statically significant association with cancer related fatigue. (Table 4)

This indicated that those who were females were 4.80 times more likely to complain of CRF as compared to the reference groups of males. Those civil servant, private employed, merchants, house wives and with other occupational status were 6.35, 27.58, 26.29, 16.52 and 5.49 times more likely to have CRF than those who were unemployed.

Further, as the current multivariate analysis showed that those who had liver cancer and receiving treatment for the cancer were 5.32 and 1.21 times more likely to have CRF in relation to those had other type of cancer like skin cancer, cancer of the head, the neck etc and those were not started treatment for it respectively. Specifically,

those who had depression and anxiety were 5.30 and 2.88 times more likely to complain of cancer related fatigues as compared to those who had no depression and anxiety respectively. Whereas, those having history of alcohol drinking in the last one month as a protective (AOR 0.05) factor of experiencing CRF.

Table 4 Factors associated with cancer related fatigue among adult cancer patients attending Tikur Anbessa hospital in Addis Ababa, Ethiopia, 2020

Explanatory Variables	CRF		COR,95%(CI)	AOR,95%(CI)	p-value
	No	Yes			
Sex					
male	53	94	1		
female	53	183	1.95 (1.23, 3.07)*	4.80, (1.64, 14.05)**	**0.004**
Marital status					
Married	72	197	1	1	
Single	10	49	1.79 (0.86, 3.72)	5.43, (1.20, 24.44)	0.028
Divorced	8	10	0.46 (0.17, 1.20)	0.06 (0.01, 0.35)	0.002
Widowed	16	21	0.48 (0.24, 0.97)*	0.69 (0.20, 2.45)	0.567
Occupation					
Unemployed	17	21	1	1	
civil servant	25	35	1.73 (1.50, 2.58)*	6.35 (1.21, 33.44)**	**0.029**
private employee	13	32	1.99 (1.81, 4.94)*	27.58 (5.48, 140.18)**	**0.000**
Merchant	12	33	2.23 (1.89, 5.62)*	26.29 (4.50, 153.67)**	**0.000**
daily laborer	1	4	3.24 (0.33, 31.74)	10.14 (0.36, 286.51)	0.174
house wife	16	89	4.50 (1.96, 10.38)*	16.52 (4.61, 59.18)**	**0.000**
Others	22	63	2.32 (1.04, 5.19)*	5.49 (1.37, 22.08)**	**0.016**
Type of cancer					
Breast cancer	9	43	2.93 (1.17, 7.33)*	1.47 (0.41, 5.31)	0.557
cervical cancer	24	72	1.84 (0.88, 3.83)	1.03 (0.32, 3.38)	0.958
blood cancer	23	44	1.17 (0.55, 2.51)	0.37 (0.12, 1.27)	0.116
bone cancer	5	23	2.82 (0.92, 8.67)	1.96 (0.41, 9.43)	0.399
Gastric cancer	4	15	2.29, (0.66, 7.96)	6.89 (0.87, 54.79)	0.068
liver cancer	5	29	3.56 (1.17, 10.76)*	5.32 (1.05, 26.92)**	**0.043**
Prostate cancer	12	7	0.36 (0.12, 1.08)	0.49 (0.09, 2.47)	0.384
skin cancer	5	13	1.59 (0.49, 5.18)1	24.32 (1.85, 2.47)	0.557

Other specify	19	31	1	1	
On treatment					
Yes	58	196	2.00 (1.26, 3.18)*	10.88(1.21, 97.71)**	**0.033**
No	48	81	1	1	
Yes	14	63	1.94 (1.03, 3.62)*	4.30 (1.37, 13.58)**	**0.013**
No	92	214	1	1	
Drink in the last one month					
Yes	8	3	0.13 (0.03, 0.52)*	0.05 (0.01, 0.45)**	**0.007**
No	98	274	1	1	
Depression status					
no depression	58	73	1	1	
Depression	48	204	3.38 (2.12, 5.30)*	5.30 (2.30, 12.23)**	**0.000**
Anxiety status					
No anxiety	63	83	1	1	
Anxiety	43	194	3.42 (2.15, 5.45)*	2.88 (1.35, 6.16)**	**0.006**

NB; * Significant association (p-value < 0.05 in bivariate) **-significant association (p-value<0.05in multivariate analysis)

6. DISCUSSION

The current study revealed that 72.3% of the patients were experienced cancer related fatigues. This finding is in line with a cross-sectional study in Brazil and the meta-analysis study at Pittsburgh (USA) that reported 76.6% and 76% of the study participants had experienced fatigue for at least a few days a month, respectively (40; 55).

Whereas, the current study finding was to some extent higher when compared with the other previous studies findings in China that 52.07% (61) and 60%) of the patient had experienced CRF, respectively (62). Also, from the preliminary study which was done in Japan and in Cyprus which mentioned that fatigue was experienced by 41% and 66.9% of cancer patients respectively (48, 59). Further, it was higher than the finding from Italy that fatigue levels were identified after surgery (9%), increasing during (49%) and at the end of CT (47%), maintaining after 1 year (31%) and declining up to ten years of follow-up (56). Lower fatigue was also reported by the systematic review studies where the pool prevalence of cancer related fatigue was 60% (54) and 26.9% (53). Based on the H. Lee Moffitt Cancer Center and Research Institute at the University of South Florida (USF; Tampa, FL) and Markey Cancer Center at the University of Kentucky (UK; Lexington, KY) report CRF prevalence at the baseline and post-treatment assessments was 10% and 26%, respectively (52). In addition, the current finding was higher than the United States study finding that only 56% of the women were experienced CRF (51).

However, the current study finding was lower than the previous research result reports like from the New Delhi India study that 78.5% of them had moderate to extreme high level of fatigue (60), and in Japan 99.9 % the patient experienced mild to severe level fatigue (58). But some of the findings was not comparable with current finding, for instance the systematic review reported found that the pool prevalence of 4% to 91% CRF (44).

The reason for the discrepancy between the current finding and the previous ones might be due to the difference in sociodemographic characteristics as well as sample size of the study and the tool they used in which it was included 371 study participants and Visual Analog Scale (VAS) tool (62), 1,938 cancer patients (61) and 89 purposively selected females and 16-item Multidimensional Assessment of Fatigue (MAF) scale (60). And the

study which was done in Japan was recruited 455 ambulatory cancer patients and Profile of Mood States (POMS) scale (59), 183 cancer patients for the multicenter observational study in Europe (58) and 148 patients and the Cancer Fatigue Scale in Cyprus (48). Further, the current study finding result is differing from the other which has been mentioned above like, the study in Italy had included 78 early breast cancer patients and Functional Assessment of Cancer Therapy-Fatigue (FACT-F) subscale (56), 288 women undergoing adjuvant therapy for early-stage breast cancer in UK (52) and 267 black women survivors of breast cancer and Functional Assessment of Chronic Illness Therapy (FACIT) tool in United State (51). There was also a difference in study design between the current study and the previous ones which might be contribute for the difference in prevalence of CRF (53, 54).

With respect to the determinant factors the current study identified some factors which had statistically significance association with the experience of CRF. For instance, sex is among one of the identified factors and those who were females were more likely to complain of CRF. This is supported by the Japan study (58) and study at Brazil (54). In the current study being a single in marital status had positive association whereas being divorced was negatively associated. Those survivors living without a partner are more likely of at risk to experience CRF (52). Being single and loneliness, have been associated with increased risk of cancer related fatigue (31).

Regarding the occupational status of the patients, the current study found that those civil servant, private employed, merchants, house wives and with other occupational status were more likely to have CRF than those who were unemployed. This might be related with being of engaged in activities which makes fatigue by itself because patients who are changed in different employment status more likely to experience fatigue (36). Being house wife has a significance association with development of CRF (58).

Further, as the current multivariate analysis showed that those who had liver cancer and receiving treatment for the cancer were experienced CRF in relation to those had other type of cancer like skin cancer, cancer of the head, the neck etc and those were not started treatment for it respectively. This is strengthened by previous findings

which mentioned that survivors treated with surgery, radiotherapy and chemotherapy as well as combination therapy are more at higher risk than without treatment (27, 28, 52). This could be associated with the side effect of the treatments which makes the patient loss of appetite that can lead to fatigue (62).

Factors like history of alcohol drinking in the last one moth, presence of depression and anxiety symptoms had also a statistical association with CRF in the current study. Specifically, those who had depression and anxiety were more likely to complain of cancer related fatigues as compared to those who had no depression and anxiety respectively. Whereas, the current study identified that having history of alcohol drinking in the last one month as a protective factor of experiencing CRF. Previous studies were also identified depression and anxiety as a determinant factor of CRF (39, 40, 62). This might be because of fatigue is a clinical feature depression and anxiety.

7. Limitation of the Study

Among the limitation of this study, the fact related to the cross-sectional design used, which simultaneously evaluate variables of the effect of interest and their associated factors, should be emphasized. Thus, it could not possible to identify whether influenced the associated factors or the outcome variable. Second, using invalidated tool to assess the substance related issues.

8. CONCLUSION AND RECOMMENDATION

8.1 Conclusion

In general, the current study finding showed that huge proportion of the patients which accounts around three-fourth of them were experienced cancer related fatigue. It has statistically significant association with sex (being female), marital status (being single and divorced), occupation (being civil servant, private employee, merchant, house wife and had other occupational status such as student, farmer, soldier, pensioner), type of cancer (had liver cancer) and receiving treatment for cancer. Further, factors like having a history of alcohol drink in the last one-month, experiencing anxiety and depression has statistically significant association with experience of cancer related in the current study.

8.2 Recommendations

To the study setting health institution (Ministry of Health);

- Health care providers working at oncology unit/department should have a continues /routine screening for cancer related fatigues that will help for early identification patients with the problem and manage it. This will have its own contribution in improving the health condition of the patients.
- It should develop appropriate comorbid screening policy and strategy

To clinicians working at Oncology units

- More attention should be given for patients who are considered as a factors which has an association with CRF like female gender, single, divorced, civil servant, private employee, merchants and house wives
- Furthermore, more emphasis should be given for patients with liver cancer, who are on treatment,
- In addition, cancer patients should be screened for depression and anxiety this will help early screening and management of these psychiatric problems concomitantly with the treatment of cancer
- Generally early recognition of patients' with CRF and its associated factors is necessary to promote and improve the health outcome and efficiency of the patients with cancer.

To researchers;

- To conduct cohort study to investigate the cause effect relationship between the risk factors and outcome variable.

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ANNEXES

ANNEX-I: INFORMATION FORM

This information form is prepared for adult cancer patients who are participated in the cross sectional research project to assess the prevalence and factors associated with cancer related fatigue among cancer patients attending Tikur Anbessa Specialized Referral hospital in Addis Ababa, Ethiopia, 2020.

Name of the principal investigator Sholaye Kassa

Name of the organization; Addis Ababa University

Name of the sponsor; Addis Ababa University

This information form is prepared to explain the study you are being asked to join. Please listen carefully and ask any questions about the study before you agree to join. You may ask a question at any time after joining the study. The investigator is final year Master of Oncology Nursing graduate student from Addis Ababa University.

Purpose of the research project: - I am hopeful that this research will contribute to assess the prevalence and factors associated with cancer related fatigue among cancer patients attending Tikur Anbessa Specialized Referral hospital.

Procedure: -To assess the prevalence and factors associated with cancer related fatigue among cancer patients attending Tikur Anbessa Specialized Referral hospital, you are invited to take part in this project. If you are willing to participate in this project you need to understand and tick yes agreement form, then after you will be interviewed by data collectors to give your response. You do not need to write your name on the questioner and all your response and the result obtained will be kept confidentially by using a coding system whereby no one will have access to your response.

Risk/discomfort: - by participating in this research project you may feel that it has some discomfort especially on wasting time about 30 minutes. I hope will you will participate in the study for the sake of the benefit of the research result. There is no risk in participating in this research project.

Benefits: the information that you are going to give will help for the determinate factor of poor adherence.

Incentives/payment for participating: there is no incentive or payment to be gained by taking part in this research.

Will the information that is obtained from you be kept confidential?

We will do all that we can to protect your confidentiality. No names will be collected and you will remain anonymous. We will not share any information that could identify you and no published data will be linked back to you.

Do I have a choice to be in the study?

Yes. If you choose to be in the study you can stop being in it at any time and for any reason. There will be no consequences to you if you do not choose to participate in the study.

ANNEX-II: CONSENT FORM

My name is _____ the data collector for the research project which is conducted by Mrs. Sholaye Kassa for the MSC degree program from Addis Ababa University. I am collecting information about the prevalence and factors associated with cancer related fatigue among cancer patients attending Tikur Anbessa Specialized Referral hospital.

You are one of the participants, your name will not be written in this form and the information you give is kept confidential. If you do not want to answer, all or some the question you do have to do so. However, your willingness and support to answer all of the questions would be appreciated and helpful.

Would you participate in responding to questions in this questionnaire?

Yes No.

Signature of the study participant _____

If No acknowledge the respondent and proceed to the next respondent

Name and signature of interviewer who sought consent

ANNEX-III: English Version Questionnaires

Part One : Socio-Demographic Related Questions			
s.no	Questions	Response categories	**Skip**
101	Age in years	(_____)	
102	Sex	1. Male 2. Female	
103	Marital status	1. Married 2. Never married 3. Divorced 4. Widowed	
104	Level of education	1. Unable to read and write 2. Able to read and write 3. Primary (1-8 Grade) 4. Secondary (9–12 grade) 5. Certificate and above	
105	Occupational status	1. No employment 2. Government employee 3. Business/self employed 4. Farmer 5. Daily laborer	
106	Residential place	1. Urban 2. Rural	
107			
Part Two : Clinical And Treatment Related Questions			
201	Type of the cancer	1. Breast cancer 2. Cervical cancer 3. Ovarian cancer 4. Blood cancer 5. Bone cancer 6. Gastric cancer 7. Liver cancer 8. Prostate cancer 9. Skin cancer 10. Other specify----------	See patient chart
202	Stage of the cancer	1. stage 1 2. stage 2 3. stage 3 4. stage 4	See patient chart

		5. other specify---------- --	
203	Duration of the illness since confirmed by health professional	_____month	
204	Are on treatment/did you start treatment for the cancer	1. yes 2. no	
205	If yes to Q.204 type treatment	1. chemotherapy 2. radiotherapy 3. complain therapy 4. supportive and 5. palliative cares 6. other specify_____	
206	Is there any confirmed Co-morbid illness?	1. Yes 2. No	
207	Type of comorbid illness	1. DM 2. Hypertension 3. HIV/AIDS 4. Renal disease 5. Liver disease 6. Other specify---------- --------	
208	Did you receive appropriate/timely pain management when there is pain?	1. Yes 2. No	
Part Three: Psychosocial And Substance Related Questions			
Part 3. A social support			
301 A	How money people are you so close to that you can count on them if you have great personal problem?	1. None 2. 1-2 3. 3-5 4. 5+	
302A	How much interest and concern do people show in what you do?	1. none 2. little 3. uncertain 4. some 5. A lot	

303A	How easy is it to get practical help from others if you should need it?	1.very difficult 2. difficult 3. possible 4. easy 5. very easy	
Part 3 B; Substance use related questions			
301 B	Smoking Have you ever smoked cigarette?	1. Yes 2. No	If no skip to 303 B
302 B	If yes in the last one month	1.yes 2. No	
303 B	Have you ever had a drink containing alcohol?	1. Yes 2. No	
304 B	If yes, have you had a drink within the past 1 month?	1.yes 2. No	
301C;	Did you received psychological therapy from psychologist when you needed?	1. Yes 2. No	

Part 3 D: Depression and anxiety related questions

	Yes definitely	Yes sometimes	No, not much	No, not at all
1. I feel tense or 'wound up' (A)	3	2	1	0
2. I still enjoy the things I used to enjoy (D)	0	1	2	3
3. I get a sort of frightened feeling as if something awful is about to happen (A)	3	2	1	0
4. I can laugh and see the funny side of things (D)	0	1	2	3
5. worrying thoughts go through my mind(A)	3	2	1	0
6. I feel cheerful(D)	3	2	1	0
7. I can sit at ease and feel relaxed(A)	0	1	2	3
8. I feel as if I am slowed down (D)	3	2	1	0

9. I get a sort of frightened feeling like 'butterflies' in my stomach(A)	0	1	2	3
10. I have lost interest in my appearance (D)	3	2	1	0
11. I feel restless as if I have to be on the move (A)	3	2	1	0
12. I look forward with enjoyment to things (D)	0	1	2	3
13. I get sudden feelings of panic (A)	3	2	1	0
14. I can enjoy a good book or radio or TV program (D)	0	1	2	3
Add column				
Total				

Part 4:Healthy behavioral related factors

401	Did you do any physical exercise?	1.yes 2. No	
402	Did you do any Relaxation techniques (like walk)?	1. Yes 2. No	

Part 5: Questions about Cancer Related Fatigue

The following questions will address about your current condition about fatigue in the last 24 hours, so you will give the score from 0 to 10 point based on the fatigability you experienced. You have to use a reference of "no fatigue" and "fatigue as bad as you can imagine for the first 3 questions and for the next 6 questions you can use 0 for being "does not interfere" and 10 being "completely interferes.

s.no	Question	Response categories	Skip
0	Throughout our lives, most of us have times when we feel very tired or fatigue. Have you felt unusually tired or fatigued in the last week?	1. Yes 2. No	
1	Please rate your fatigue (weariness, tiredness) by circling the one number that best describe your fatigue NOW. 0 1 2 3 4 5 6 7 8 9 10 No fatigue as bad as you can imagine		
2	Please rate your fatigue (weariness, tiredness) by circling the one number that best describe your USUAL level of fatigue during the past 24 hour. 0 1 2 3 4 5 6 7 8 9 10 No fatigue as bad as you can imagine		
3	Please rate your fatigue (weariness, tiredness) by circling the one number that best describe your WORST level of fatigue during the past 24 hour. 0 1 2 3 4 5 6 7 8 9 10 No fatigue as bad as you can imagine		
4	Circling the one number that best describe how, during the past 24 hour, fatigue has interfered with your **general activity** 0 1 2 3 4 5 6 7 8 9 10 does not interferes completely interferes		
5	Circling the one number that best describe how, during the past 24 hour, fatigue has interfered with your **Mood**		

	0 1 2 3 4 5 6 7 8 9 10 does not interferes completely interferes		
6	Circling the one number that best describe how, during the past 24 hour, fatigue has interfered with your **walking activity** 0 1 2 3 4 5 6 7 8 9 10 does not interferes completely interferes		
7	Circling the one number that best describe how, during the past 24 hour, fatigue has interfered with your **normal work (including both work outside the home and daily chores** 0 1 2 3 4 5 6 7 8 9 10 does not interferes completely interferes		
8	Circling the one number that best describe how, during the past 24 hour, fatigue has interfered with your **normal work (including both work outside the home and daily chores** 0 1 2 3 4 5 6 7 8 9 10 does not interferes completely interferes		
9	Circling the one number that best describe how, during the past 24 hour, fatigue has interfered with your **relation with others people** 0 1 2 3 4 5 6 7 8 9 10 does not interferes completely interferes		
11	Circling the one number that best describe how, during the past 24 hour, fatigue has interfered with your **enjoyment of life** 0 1 2 3 4 5 6 7 8 9 10 does not interferes completely interferes		

Thank You

Name of the data collector----------signature---------- date----------

Name of the data collector----------signature---------- date----------

7.4 የአማርኛ የመረጃ መሰብሰቢያ ቅጽ

የታካሚው መረጃ ቅጽ እና የተሳትፎ ማረጋገጫ

ውድ ተሳታፊዎች

ይህ የመረጃ ቅጽ የተዘጋጀው ከካንሰር ህመም ጋር ተያያዘ የሚመጣውን ድካም ስሜት መኖር አለመኖሩን እና ተያያዥ ሁኔታዎች ለማጥናት በሚካሄደው ምርምር ላይ ካነሰር ያለባቸው ከ18 ዓመት በላይ የሆኑ የካንሰር ታካሚዎች በጥናቱ ላይ እንዲሳተፉ ለመጋበዝ ነው።

የጥናቱ ዋና ተመራማሪ፤ ሾላይ ካሳ

የጥናቱን ወጪ የሚሸፍነው ተቋም፤ አዲስ አበባ ዩኒቨርሲቲ

ስሜ ----------ይባላል በአዲስ አበባ ዩኒቨርሲቲ የመጨረሻ ዓመት የካንሰር ህክምና ነርሲንግ ተመራቂ የሆነችውን የሾላይ ካሳ መረጃ ሰብሳቢ ነኝ። ይህ መረጃ የተዘጋጀው በዚህ ምርምር ላይ ተሳታፊ እንዲሆኑ ለመጋበዝ ሲሆን ለመሳተፍ ፍቃደኛ ከመሆነዎ በፊት በጥሞና ያዳምጡኝ።

የጥናቱ አላማ

በአዲስ አበባ ጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል የካንሰር ህክምና በሚከታተሉ ታካሚዎች ላይ የካንሰር ህመም ጋር ተያይዞ የተከሰተ የድካም ስሜት መኖር አለመኖሩን እና ተያያዥ ሁኔታዎችን ለማጥናት ነው።

መግቢያ/አተገባበር

ይህ የመረጃና የስምምነት ውል ቅፅ የተዘጋጀዉ እርሶዎ ተሳታፊ እንዲሆኑ ስለተጋበዙበት በዚህ ጥናት ማለትም በጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል የካንሰር ህክምና በሚከታተሉ ታካሚዎች ላይ የካንሰር ህመም ጋር ተያይዞ የተከሰተ የድካም ስሜት መኖር አለመኖሩን እና ተያያዥ ሁኔታዎችን በሚለው ጥናት በፍቃደደኝነት ለመሳተፍ የርሶዎን ፈቃደኝነትን ለማወቅ ነዉ። እርሶዎ በዚህ ጥናት ለመሳተፊ ፈቃደኛ የሚሆኑ ከሆኑ ተሳታፊ በመሆንዎ በጣም ደስተኞች ስንሆን እርሶዎ የጥናቱን ዓላማ በግልጽ እንዲረዱትና የስምምነት ዉሉን እንድፈጽሙልን እንፈልጋለን። በዚህ መሰረት በመረጃ ሰብሳቢዎች በሚቀርቡት መጠይቆች መሰረት እርሶዎን የሚመለከት መልስ በመስጠት እንድተባበሩን በአክብሮት እንጠይቃለን። ከእርስዎ የምንሰበስበው መmረጃ ሙሉ በሙሉ ሚስጥራዊነቱ የተጠበቀ ስለሚሆን ስጋት አይግባዎት።

ሊደርስ የሚችል ጉዳት ፡ በዚህ ጥናት ተሳታፊ በመሆንዎ ምክንያት የሚደርስ ምንም ዓይነት ጉዳት የለም። ነገር ግን ቃለ ምልልሱን ለማጠናቀቅ ቢበዛ 30 ደቂቃ ልንወስድበዎት እንችላለን።

ጥቅም

እርሶዎ በዚህ ጥናት ላይ ተሳታፊ በመሆንዎ በቀጥታ ሊያገኙት የሚቹሉት ጥቅም ባይኖርም የእርሶዎ ተሳትፎ ለወደፊቱ በተቋሙ የካንሰር ህክምና ለሚከታተሉ ታካሚዎች ላይ ከካንሰር ጋር ተያይዞ የሚከሰተውን የድካም ስሜት እና ተያያዥ ሁኔታዎችን በቅድሚያ ለይቶ ለማወቅ እና አስፈላጊውን ህክምና ለማደረግ ይረዳል።

ጥቅማጥቅም

በዚህ ጥናት ተሳታፊ በመሆነዎ ምንም ዓይነት ማበረታቻ ወይም ክፍያ አይሰጠዎትም።

ሚስጢራዊነት

ለዚህ የጥናት ፕሮጀክት የሚሰበሰበዉ መረጃ የግል ጉዳዮችን ያካተተ በመሆኑ ማን ምን መልስ እንደሰጠ/ች ሚስጢር እንዲሆን ጥንቃቄ ተደርጎበታል። ለዚህም ሲባል በመጠይቁ ጊዜ ስምም ሆነ ሌላ ማንነትን የሚገልፅ ነገር መናገር አይጠበቅበዎትም። ጥናቱ በሚታተምበት ጊዜም እርስዎን የሚገልጽ ምንም አይነት መረጃ አይታተምም።

በጥናቱ ያለመሳተፍ ወይም የቋረጥ መብት

በዚህ ጥናት ያለመሳተፍ መብትዎ ሙሉ በሙሉ የተጠበቀ ነዉ። ለመጠይቁ በሙሉ ወይም በከፊል መልስ አለመስጠት ይችላሉ እንድሁም በማንኛዉን በፈለጉት ሰዓት ማንኛዉን መብተዎን ሳያጡ የማቋረጥ ሙሉ መብት አለዎት።

በቃለ መጠይቁ ላይ ለመሳተፍ ፍቃደኛ ነዎት? 1 አዎ 2 አይደለሁም

የተሳትፎማረጋገጫ

የሰነዱን ይዘት የተረዳሁ ሲሆን የምርምር ኘሮጀክቱንም አላማ ተረድቻለሁ።በዚህ ምርመራ ኘሮጀክት ላይም ለመሳተፌ ፍቃደኛ ሆኛለሁ።በማንኛውም ሰዓትም ከጥናቱ ራሴን ለማግለሌ መብት እንዳለኝም አውቃለሁ።

የተሳታፊ ፊርማ ----------ቀን----------

የሱፐርቫይዘር ስም እና ፊርማ ----------ቀን----------

የመረጃ ሰብሳቢ ስም እና ፊርማ ----------ቀን----------

ክፍል 1 ይማህበራዊ አኗኗር መረጃዎች

ጥ ቁ	ጥያቄዎች	የጥያቄዎች ምርጫ	ኮድ	ስኪፕ
100	የመለያ ቁጥር	----------		
101	እድሜዎ ስንት ነው	እድሜ በአመት----------		
102	ፆታ	ወንድ 2. ሴት		
103	የጋበቻ ሁኔታዎ	1 ያገባ/ ች 2 ያላገባ/ች 3 የፈታ ች 4. የሞተበት/ባት		
104	የትምህርት ደረጃዎ	ማንበብ እና መጻፍ የማይችል ማንበብ እና መጻፍ የሚችል የመጀመሪያ ደረጃ (1-8 ክፍል) ሁለተኛ ደረጃ (9-12)ክፍል ሰርትፊኬት እና ከዚያ በላይ		
105	ሥራዎ ምንድን ነው	1. ስራ የሌለው 2. የመንግስት ሰራተኛ 3. የግል ስራ 4. ነጋዴ 5. የቀን ሰራተኛ 6. የቤት አመቤት 7. ሌሎች ይገለፁት--------		
106	የመኖሪያ አድራሻ	ከተማ 2. ገጠር		

ክፍል2፤ ክሊኒካል ና ህክምና የተመለከቱ ጥያቄዎች

ጥ ቁ	ጥያቄዎች	የጥያቄዎቹ ምርጫዎች	ኮድ	
201	የካንሰሩ አይነት	የጡት ካንሰር የማህጸን በር ካንሰር የማህጸን ካንሰር የደም ካንሰር የአጥንት ካንሰር የጨጓራ ካንሰር የጉበት ካንሰር ፕሮስቴት ካንሰር የቆዳ ካንሰር ሌላ ይገለጽ----------		የታካሚው ካርድ ላይ የተጻፈውን ውሰድ/ጂ
202	ህመሙ አሁን ያለበት ደረጃ	ደረጃ አንድ ደረጃ ሁለት ደረጀ ሶስት ደረጃ አራት ሌላ ይገለጽ----------		የታካሚው ካርድ ላይ የተጻፈውን ውሰድ/ጂ
203	ህመሙ በባለሙያ ከተረጋገጠ ጀምሮ ምን ያህል ጊዜ ሁኖታል	----------ወር		
204	በአሁኑ ሰኣት የካንሰር ህክምና ጀምረሃል/ሻል (የካንሰር ህክምና ላይ ነህ/ሽ	አዎ አልጀመርኩም/አይደለሁም		
205	ለጥያቄ ቁጥር 204 መልስዎ አዎ ከሆነ የሚያገኙት የህክምና አይነትት	ኬሞተራፒ ራዲዮተራፒ/ጨረር ድጋፋዊ ህክምና/ክትትል የህመም ማስታገሻ ህክምና ሌላ ይገለጽ----------		ከካርዱ ላይ ተመልከት/ቺ
206	በአሁኑ ሰዓት በሃኪም የተረጋገጠ ተጨማሪ ህመም አለብህ/ሽ	አዎ 2. የለብኝም		
207	ለጥያቄ 207 መልስዎ አዎ ከሆነ ምን አይነት በሽታ ነው	የስኳር ህመም ደም ግፊት ኤች አይ ቪ/ኤድስ የኩላሊት ህመም የጉበት ህመም ሌሎች ይግለፁ----------		

ክፍል 3; ማህበራዊ ድጋፍ እና አደንዛዥ እጽ በተመለከተ

ጥ ቁ	ጥያቄዎች	የጥያቄዎቹ ምርጫዎች	ኮድ	ስኪፕ
301 A	በህይወትዎ ውስጥ በጣም የቅርብ የሆኑ እና ችግርዎትን የሚካፈሉ ስንት ሰዎች አሉ	ምንም/ማንም የለኝም 1-2 ሰዎች 3-5 ከ5 ሰዎች በላይ		
302 A	ሌሎች ሰዎች እርስዎ በሚያደርጓቸው ነገሮች ላይ ምን ያህል ግድ ያላቸውና የሚያስቡልዎት ይመስለዎታል	ጨርሶ ግድ የላቸውም ብዙም ግድ የላቸውም እርግጠኛ መሆን አለችልም በመጠኑ ግድ ይላቸዋል በጠም ግድ ይላቸዋል		
303 A	ከቤተሰብ ወይም ከጎረቤት እርዳታ ማግኘት ምን ያህል ቀላለ ነው	በጠም ከባድ ነው ከባድ ነው ቀላል ባይሆንም እረዳታ ማግኘት ይቻላል ቀላል ነው በጣም ቀላል		
301 B	በሂዎት ዘመንህ/ሽ ሲጋራ አጭሰህ/ሽ ታውቃአለህ/ቂያለሽ	1. አዎ 2. የለም		
302 B	አዎ ከሆነ በዚህ አንድ ወር ውስጥስ	1. አዎ 2. የለም		
303 B	በሂዎት ዘመንህ/ሽ የአልኮል መጠጥ ተጠቅመህ/ሽ ታውቃአለህ/ቂያለሽ	1. አዎ 2. የለም		
304 B	አዎ ከሆነ በዚህ አንድ ወር ውስጥስ	1. አዎ 2. የለም		
301 C	የስነልቦና ህክምና ባስፈለገህ/ሽ ሰኣት ከተቋሙ የስነልቦና ባለሙያ የስነልቦና	አዎ 2. አይ		

	ህክምና አገልግሎት አግኝተህ/ሽ ነበር			

ከፍል 3 **D** ፤ የጭንቀትና የቁዘማ(ድብርት) መገምገሚያ ጥያቄዎች

	በጣም በዙ ጊዜ	ብዙ ጊዜ	አለፎአልፎ	ምንም
1 የመጨነቅ ወይም የመወጠር ስሜት ምን ያህል ይሰማዎታል?	3	2	1	0
2 ቀደም ሲል ያስደስቱዎት የነበሩ ነገሮች አሁን ምን ያህል ያስደስቱዎታል?	0	1	2	3
3 አንድ መጥፎ ነገር ሊያጋጥምዎ የተቃረበ የሚመስል የፍርሃት ስሜት ይሰማዎታል?	3	2	1	0
4 መሳቅና የነገሮች አስቂኝ ጎን ማየት ይችላሉ	0	1	2	3
5 ጭንቀትን የሚያጭሩ ሀሳቦች በአእምሮ ምን ያህል ጊዜ ይሰማዎታል	3	2	1	0
6 ደስተኛ ነዎት	0	1	2	3
7 ተረጋግተው መቀመጥ ና ዘና ማለት ይችላሉ	0	1	2	3
8 ስራዎን ሲያከናውኑ ወዘተ ፈጥነትዎ አነዴት	3	2	1	0
9 ሆድ አካባቢ የሚሰማ የመደነገጥ ወይም የመሸበር ስሜት ይሰማዎታል	3	2	1	0
10 ስለአለባበሰዎ ትኩሬን መስጠት አቁመዋለ	3	2	1	0
11 አንደ ቦታ መሄድ ያለብዎ ይመስል ተረጋገቶ መቀመጥ ይቸግርዎታል	3	2	1	0
12 መጪ ነገሮችነ በደሰታ ይጠባበቃሉ	0	1	2	3
13 በድነገት የመደንገጥ ወይም የመሸበር ሰሜት ይሰማዎታል	3	2	1	0
14 በሬድዮ ወይም የቴሌቪዝን ፕሮግራሞች ራስዎን ያስደሰታሉ	0	1	2	3

ጠቅላላ ድመር				

ክፍል4፤ ጤነኛ የአኗኗር ሰርኣትን በተመለከተ

ጥ ቁ	ጥያቄዎች	የጥያቄዎቹ ምርጫዎች	ኮድ	ስኪፕ
401	የሰውነት እንቅስቃሴ ስፖረቶችን ይሰራሉ (ለምሳሌ ሩጫ፤ ገመድዝላይ፤ ጂም፤ ወዘተ)	አዎ 2. አልሰራም		
402	ሰውነትን ዘና የሚያደርጉ ነገሮችን ይጠቀማሉ/ያደርጋሉ (ለምሳሌ ቀለል ያለ የእግር ጉዞ/ዎክ፣ማሳጅ…)	አዎ 2. አልጠቀምም/አላደርግም		

ክፍል5፤ ካንሰር ጋር የተያያዘ ድካምን በተመለከተ

የሚከተሉት ጥያቄዎች የሚያተኩሩት ባለፉት 24 ሰኣታት የሰማዎት ስለነበርው የድካም ስሜት ላይ ያተኮሩ ናቸው። ስለዚህ ይህን በመገንዘብ ለእያንዳንዱ መጠይቅ 0 እሰከ 10 ነጥብ ይሰጣሉ። 0 ማለት ምንም የድካም ስሜት ካልነበረ (ከስራዎ ጋር ምንም ኣይነት ተጽእኖ ካላሳደረ) ሲሆን 10 ድግሞ በጣም የድካም ስሜት ከነበረ (ስራዎ ላይ ሙሉበሙሉ ተጽእኖ ከነበረው)

ጥ ቁ	ጥያቄዎች	የጥያቄዎቹ ምርጫዎች	ኮድ	ስኪፕ
0	በሂዎት ዘመኑ ማንኛውም ሰው የድካም ስሜት ሊያጋጥመው ይችላል። ነገር ግን በዚህ ሳምንት ውስጥ ከወትሮው ለየት ያለ የድካም ስሜት ተሰምተዎት ነበር	1.አዎ 2. አልተሰማኝም		

1	አሁን የሚሰማዎትን የድካም ስሜት ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		
	ድካም የለም ከምገምተው በላይ ድካም አለ		
2	ባለፉት 24 ሰኣታት ውስጥ የተሰማዎትን የተለመደ የድካም ስሜት ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		
	ድካም የለም ከምገምተው በላይ ድካም አለ		
3	ባለፉት 24 ሰኣታት ውስጥ የከፋ ነበር የሚሉትን የተሰማዎትን የድካም ስሜት ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		
	ድካም የለም ከምገምተው በላይ ድካም አለ		
4	ባለፉት 24 ሰኣታት ውስጥ የተሰማዎትን የድካም ስሜት ምንያክል በአጠቃል የስራ እንቅስቃሴ ሁኔታዎ ላይ መስተጓጎል አድርሶበዎታል ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		
	አላስተጓጎለኝም በጣም አስተጋጉሎኛል		
5	ባለፉት 24 ሰኣታት ውስጥ የተሰማዎትን የድካም ስሜት ምን ያክል በስሜትዎ ላይ ተጽእኖ አሳድሮበዎታል ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		
	አላሳደረብኝም በጣም ተጽእኖ አሳድሮብኛል		
6	ባለፉት 24 ሰኣታት ውስጥ የተሰማዎትን የድካም ስሜት ምን ያክል የእግር እንቅስቃሴ ሁኔታዎ ላይ መስተጓጎል አድርሶበዎታል ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		

	አላስተጓጎለኝም በጣም አስተጋጉሎኛል		
7	ባለፉት 24 ሰኣታት ውስጥ የተሰማዎትን የድካም ስሜት ምን ያክል በኖርማል ስራዎት (ማለትም ከቤት ውጭ ለውን ስራዎን እና የእለትተለት ትጋርዎት ላይ) ላይ መስተጓጎል አድርሶበዎታል ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		
	አላስተጓጎለኝም በጣም አስተጋጉሎኛል		
8	ባለፉት 24 ሰኣታት ውስጥ የተሰማዎትን የድካም ስሜት ምን ያክል ከሰዎች ጋር የነበረዎት ግኑኝነት ላይ ተጽእኖ አሳድሮበዎታል ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		
	አላደረሰብኝም በጣም አድርሶብኛል		
9	ባለፉት 24 ሰኣታት ውስጥ የተሰማዎትን የድካም ስሜት ምን ያክል ታፋጭ ጊዜዎን በሚያስደስት ሁኔታ እንዳያሳልፉ ተጽእኖ አሳድሮበዎታል ከ0 እስከ10 ካሉት አማራጮች አንዱን ያክብቡ		
	0 1 2 3 4 5 6 7 8 9 10		
	አላደረሰብኝም በጣም አድርሶብኛል		

አመሰግናለሁ

የመረጃ ሰብሳቢው ስም---------- ቀን---------- ፊርማ----------