

**ADDIS ABABA UNIVERSITY  
COLLEGE OF HEALTH SCIENCES  
SCHOOL OF NURSING AND MIDWIFERY**

**SELF-CARE BEHAVIOR AND ASSOCIATED FACTORS AMONG  
CANCER PATIENTS WHO ARE ON CHEMOTHERAPY TREATMENT  
AT TIKUR ANBESA SPECIALIZED HOSPITAL.**

**NAME OF INVESTIGATOR: - TSI GE GEBRE**

**A THESIS SUBMITTED TO ADDISABABA UNIVERSITY COLLEGE  
OF HEALTH SCIENCE SCHOOL OF NURSING AND MIDWIFERY  
DEPARTMENT OF NURSING IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTERS OF SCIENCE IN  
ONCOLOGY NURSING**

**JUNE, 2018.**

**ADDIS ABABA, ETHIOPIA.**

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**ADDIS ABABA, ETHIOPI**

**ADDIS ABABA UNIVERSITY**

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**SCHOOL OF NURSING AND MIDWIFERY**

**MASTER OF SCIENCE RESEARCH PROJECT SUBMISSION FORM**

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<b>Full title of the research project</b>	<b>Self-Care Behavior And Associated Factors Among Cancer Patients Who Are On Chemotherapy Treatment At Tikur Anbessa Specialized Hospital.</b>
<b>Duration of study</b>	<b>From March1-March 31,2018</b>
<b>Study Area</b>	<b>Tikur Anbessa Specialized hospital</b>
<b>Source(s) of funding</b>	<b>Addis Ababa University collage of health science department of nursing and midwifery.</b>
<b>Total cost of the project</b>	<b>29,573.7ETB</b>
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## **ACKNOWLEDGEMENT**

First of all, I would like to acknowledge AAU, college of health science school of nursing and midwifery for giving this chance to do this thesis.

I also would like to express my heartfelt gratitude to my advisors Mr. Daniel Menigstu and Mr. Yosief Tsige for their practical advice, support, priceless comments and suggestions give throughout the development of this thesis work. And next, I would like to thank all data collectors and study participants whose contribution was vital to go through the data collection work. Then I want to say thank you to my beloved family and my class mates for their unreserved encouragement and moral support throughout the proposal development.

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## **ABBREVIATIONS AND ACRONYMS**

AAU	Addis Ababa University
CD	Compact Disk
CHEMO	Chemotherapy
REC	Research Ethics Committee
SEB	Self-care behavior
SEMT	Side effect management techniques
SE	Side Effect
SPSS	Statistical package for social science
ST.PMCH	Saint Paul collage medical hospital
TASH	Tikur Anbessa Specialized Hospital
QOL	Quality Of Life
PT	Patient

## ABSTRACT

**Background:** Cancer affects millions of people in the world each year, leading many to face the difficult road of chemotherapy. When cancer patients are ill-prepared for chemotherapy treatments, they often tend to envision the worst-case scenarios, possibly making the anticipation more difficult than the event itself. In Ethiopia evidence on self-care behavior on chemotherapy and associated factors is limited. So this study is aimed to fill the gap.

**Objectives:** To assess self-care behavior and associated factors among cancer patients who are on chemotherapy treatment at Tikur Anbessa Specialized Hospital Addis Ababa, Ethiopia 2018.

**Methods:** Institution based cross-sectional study design was conducted on sample study of 254 study participants at Tikur Anbessa Specialized Hospital using simple random sampling techniques. Face to face interview with structured questionnaire was used to collect data. Prior to data collection 5% pretest was done to ensure the quality of data. Data was entered in to Epi –data version 4.2 and exported into SPSS versions 24 for analysis. Descriptive statistics used to describe the study participants with major independent and dependent variables' including frequencies, proportion, mean and standard deviation was demonstrated by using tables, graphs and texts. Bivariate and multivariate logistic regression was used to look for association between predictors and dependent variable. Crude and adjusted odds ratios with the corresponding 95% confidence intervals were computed.

**Result:** In this study a total of 254 clients were participate patients of were from 34(13.4%) in patient and 220(86.6%) were from out patients. The study found that there was a poor self-care behavior of chemotherapy patients and also age, income, educational level, occupation, cancer type, information from health care provider and fatigue had significantly associated with self-care of chemotherapy patients.

**Conclusions and recommendation** Self-care behavior performed by studied patients was insufficient to provide complete relief of the side effect due to inadequate information about the side effects of chemotherapy and how to manage it. This needs intensive awareness creation campaigns on self-care behavior on chemotherapy patients to complement health education in health facilities.

**Key words;** self-care behavior, cancer patients, chemotherapy side effects

# CHAPTER ONE INTRODUCTION

## 1.1 Back ground of the study

Cancer is one of the health problems today, which is perceived by public as frightening, anxiety, painful and untreatable disease that implies death. More than one half of patients diagnosed with cancer receive chemotherapy treatment which cause many side effects.

Self-care behavior; is patient initiates in response to the side effects that are experienced secondary to chemotherapy treatment and defined as being positive behavior that the patients performs in order to prevent or minimize the side effects[1]. In order to improve motivation to self-care such as improving the patients quality of life(QOL), reducing the severity of illness, having autonomy in doing things, adapting to his or her affairs, and presence in the community for patients is explained(1, 2).

Chemotherapy uses chemical agents or drugs to destroy cancer cells in the cell and inhibit the growth and the spread of cancerous cells (4).It combined with surgery or radiation therapy or both to reduce tumor size preoperatively and to destroy remaining mass cell post operatively or to treat some forms of systematic cancers as leukemia .Chemotherapy is usually given in cycles patients receive treatment for one or more days then they have a recovery periods of several days or weeks before the next treatment session(2-4).

The patient on chemotherapy will be affected physically, mentally, and socially following complications of drugs which in turn affects patient's self- care behavior Patients receiving chemotherapy for the treatment of cancer frequently experience severe fatigue, symptoms of fatigue often is not continually present but comes and goes(5-7) .

If a patient is going to experience side effects from treatment, they will most likely experience these effects at home. Self-care behavior is preparation before chemotherapy self-conduct during and after chemotherapy and self-care at home(8, 9) .

Cancer patients face certain nutritional problems caused either by the side effects of cancer treatments or hospital food-related problems. Oncology nurses who are in charge of these cancer patients are also responsible for evaluating their nutritional status and eliminating malnutrition(10, 11)

According to foster and team cancer patient's self-management is an individual's strategies for controlling disease condition to maximizes wellbeing, or approaches chosen by an individual to optimize living condition with cancer. Cancer patients receiving chemotherapy needs information about the drugs they take and the self-care they must be practice in order to help prevent serious complication (12, 13).

Health personnel are responsible for encouraging and promoting proper self-care of the patients being treated with chemotherapy(14). Patients are in formed from the beginning of chemotherapy by health professional about the side effects. It is common that during chemotherapy communication from health professional is in adequate or absent with proper assessment and appropriate guidance throughout treatment process (15). In Ethiopia there is limited data evidence on self-care behavior patient's chemotherapy. Therefore; self-care behavior should be implemented at the start of chemotherapy.

## **1.2. Statement of the Problem**

Cancer affects millions of people in the world each year, leading many to face the difficult road of chemotherapy. When cancer patients are ill-prepared for chemotherapy treatments, they often tend to envision the worst-case scenarios, possibly making the anticipation more difficult than the event itself(16, 17).

Chemotherapy often causes serious side effects in patients receiving treatment for cancer. Fatigue, nausea, vomiting, changes in bowel function, and an altered sense of taste are common problems. These side effects can be overwhelming. If patients are unable to develop effective self-care behaviors to manage these side effects, they may delay or terminate their treatment regimen prematurely.(18).They experience anxiety about the unknowns of chemotherapy and its side effects. A greater degree of patient experiencing depression are less take for granted(19). Activities of daily living are defined as those age-appropriate physical and cognitive activities that individuals generally perform for themselves as part of their daily self-care. For adults, these include such activities as bathing, using the toilet, dressing, preparing meals, and feeding one. Instrumental activities of daily living include such tasks as using a telephone, shopping, paying bills, and using transportation (20)

Cancer patients carried out self-care in order to preserve their self-identity and maintain a sense of normality. Self-care activities intended to manage both the physical and emotional impact and rationalizing the purpose and effects of their chemotherapy treatment.(21)

International literature reviews indicated that, overall, patients and caregivers who were relatively low in self-efficacy for managing pain, symptoms and function and that there were significant associations between self-efficacy and adjustment. Patients with low self-efficacy reported significantly higher levels of pain, fatigue, lung cancer symptoms, depression and anxiety and significantly worse physical and functional well-being, as did cancer patients whose caregivers were low in self-efficacy. When both patients and caregivers had low self-efficacy, patients reported higher levels of anxiety and poorer quality of life than when both had high self-efficacy (22)

Malnutrition is common among cancer patients. It is a condition resulting from the consumption of a diet that is either deficient or excessive in nutrients, thereby causing health

problems. The incidence of malnutrition in cancer patient is 40% to 80% more over malnutrition in these patients is responsible for 20% of cancer related death(23).

Cancer patients usually suffer from malnutrition because of the side effects of cancer treatment and deleterious effects of the disease itself. Cancer patients determine limits between what they should or should not do based on knowledge of themselves, their singularities, symptoms of the disease and their body's reaction to the treatment(24)

Quasic experimental conduct in Egypt showed that the main side effects of chemotherapy experienced by the participated patients were fatigue 100%, feeling depression and frustration 83.7%, nausea 80%, vomiting 78%, anorexia 76%, taste alteration, 74%, headache 68% and dryness of mouth and lips 68%(25). In Ethiopia evidence on self-care behavior of chemotherapy and associated factors are limited. So this study is aimed to fill the gap. As to the literature searching, there is no study done at Tikur Anbessa specialized hospital Addis Ababa to assess self-care behavior among chemotherapy patients.

### **1.3 Significance of the Study**

This study was help to determine self-care behavior and associated factors among cancer patients who are on chemotherapy treatments at Tikur Anbessa specialized hospital. In addition it was give essential input data to identify essential input of data for the self-care behaviors of chemotherapy cancer patients as well as associated factors among cancer patients.

It was also help policy makers particularly those related with cancer to provide health education and intervention regarding self-care and the factors associated among cancer patients who are on chemotherapy. On the top of this the study findings was serve as a base line data for the future researchers.

## **CHAPTURE TWO: LITRTURE REVIW**

### **2.1 General Concepts about Self Care Behavior**

Self-care is defined as the practice or activities that individual personally initiate and perform on their own behalf to maintain life ,health and wellbeing (26).The important of chemotherapy is to stop the growth of cancer cells which abnormally divide rapidly. However some normal Cells will be affected by chemotherapy examples lining of gastrointestinal tract, bone marrow and hair follicles (29).

### **2.2 Self Care Behaviors of cancer patients who are on chemotherapy treatment**

Cancer and its treatment represent significance challenges for health care system in America .chemotherapy in particular presents challenges for patients, families, and health care professional provision of information to patients is one of the most important factors of supportive cancer care across the whole continuum .The aim of providing information is to prepare patients for their treatment to increase adherence to therapy to increase their ability to cope with illness and to promote recovery (27)

Descriptive cross sectional study conducted in Thailand in helping cancer patients coping with the side effects of chemotherapy , providing education and information on self-care are necessary ,health care providers can effective empower patients coping efforts during cancer therapy related to symptoms and self-care to assess patients symptoms (28).

A pilot study conduct in china about self-management behavior to cope fatigue, nausea, vomiting, there are some consistence as well disparities between strategies that are frequently used and those rated as effective for fatigue self-management participant were more likely to use strategies related to rest and sleep .For nausea and vomiting self-management dietary modification and taking medication were most frequently.(29)

In a study which was conducted at oncology center, Missouri University Hospital, Egypt, Concerning self-care strategies to alleviate chemotherapy related fatigue. The findings of the



study showed that the most performed self-care strategies by cancer patients to alleviate fatigue were obtaining adequate rest, increasing intake of juice and fluids & doing distractive activity as reading or listening to music and patients reported that significantly effective strategies on alleviating fatigue. Concerning self-care strategies to alleviate chemotherapy induced nausea & vomiting. The findings of the study showed that the most performed self-care strategies by cancer patients to alleviate nausea & vomiting were eating easy digested food, avoiding spicy food, small frequent meals, and oral hygiene & eat cold not hot food(30).

Cross sectional study conduct in Egypt self-care practices for fatigue showed that patients with colon and breast cancer were limited their daily home activities and routine work consequently. For head ache self-care practice the majority of the patient took analgesic drugs and depression and frustration by maintaining prayers, reading Koran or listening (1).

## **2.3 Associated Factors of Self Care Behavior among cancer patients who are on Chemotherapy treatment**

### **2.3.1. Socio- demographic factor**

According to a study conducted among Chinese Americans to asses Symptoms, Self-Care, and Quality of Life of Chinese American Patients with Cancer with sample of 25 patients using Descriptive, exploratory cohort study Participants were first-generation immigrants with low levels of acculturation; 88% could not read English; 64% had an annual household income of less than \$20,000. Methods: Participants reported experiencing about 14 symptoms weekly. Lack of energy, hair loss, dry mouth, sleep difficulty, and loss of appetite were reported most frequently. On average, about two self-care strategies per symptom were reported and were low to moderate in effectiveness. About 20% of the sample listed Chinese medicine as part of their self-care strategies. A moderate level of QOL was reported(31).

Research done in Canada told that patients practicing more religious rituals were of lower life quality and had more psychological and social problems. Self- efficiency is important factor that influence patient self-management. Patients and caregivers were relatively low in self-efficacy form an aging pain, symptoms and function and that there were significant associations between self-efficacy and adjustment. Patients with low self-efficacy reported significantly higher levels of pain, fatigue, lung cancer symptoms, depression and anxiety and

significantly worse physical and functional well-being, as did patients whose caregivers were low in self-efficacy. Social support of family functioning positively associated with total self-care activity efficacy (32).

According to longitudinal study conducted at University of, Sterling, UK to explore patients' experiences of self-care during a 6-month course of chemotherapy treatment for colorectal cancer using Semi-structured interviews on 11 patients at the beginning and end of their treatment for colorectal cancer in a Scottish cancer center between March 2005 and June 2006 shows Patients carried out self-care in order to preserve their self-identity and maintain a sense of normality. Self-care activities intended to manage both the physical and emotional impact of undergoing treatment included the use of medications and nutritional supplements and reducing food intake, information-seeking and -sharing experiences with fellow patients and rationalizing the purpose and effects of their chemotherapy (33)

According to a study conducted in china to assess the level of self-care self-efficacy age. Profession ,educational level ,occupation ,side effects were associated with self-care self-efficacy(34)

### 2.3.2 Health status factors

Cross-sectional survey studied in china showed that patients diagnosed with different cancer are varied in their engagement in self-management behavior in ovarian cancer patients who are more active in fatigue self-management behavior relative to liver, lymphoma, cervical, bone esophageal; Breast cancer patients are less likely to modify their environment to manage nausea and vomiting (29).

On the other hand lung cancer patients are less prone to report psychological strategies for nausea and vomiting .Studied in china showed that Inpatient in general showed more on nausea and vomiting self-management behavior partially support to health care professional is beneficial for self-management and out patients may be disadvantage for engaging in self-management requiring extra self-management support .Alternatively outpatient may not necessarily in nausea and vomiting behavior inpatient home environment may not be unpleasant as the hospital (22)

### **2.3.3. Informational resource factors**

Cancer and its treatment represent significant challenges for health care system in America chemotherapy in particular presents challenges for patients, families, and health care professional. provision of information to patients is one of the most important factors of supportive cancer care across the whole continuum .The aim of providing information is to prepare patients for their treatment to increase adherence to therapy to increase their ability to cope with illness and to promote recovery.(35)

Patients receiving chemotherapy are at risk of developing multiple problems and increased anxiety levels and are now more likely to encounter these problems outside the hospital setting. Therefore, providing all the necessary information at chemotherapy sessions is crucial to self-care activities and coping(19)

According to a study conducted in Northern Ireland to assess Information needs of cancer patients receiving chemotherapy at a day-case unit .the study shows that was lack of information given to patients regarding family relationships. Whilst almost patients wanted this information, more than half reported that it had not been given. Most patients wanted to receive all possible information about their condition and reported satisfaction with the information provided(36).

According to a study conducted at Alexandria on Randomized Controlled Trial of an Educational Intervention for Managing Fatigue in Women Receiving Adjuvant Chemotherapy for Early-Stage Breast Cancer with sample of 109 women commencing adjuvant chemotherapy for stage I or II breast cancer in five chemotherapy treatment centers shows Preparatory education and support has the potential to assist women to cope with cancer-related fatigue in the short term (37)

According to a study conducted in a cancer center in the south-Eastern United States on the Effect of Education in Managing Side Effects in Women Receiving Chemotherapy for Treatment of Breast Cancer with a sample of 70 women receiving their first treatment of chemotherapy using Subjects completed demographic data and the Spielberg State-Trait Anxiety Instrument (STAI).Self-care behaviors can be taught and can be effective in

managing side effects. Implications for Nursing Constraints on nurses decrease the length of teaching time available, but audiotapes provide effective teaching and reinforcement of education. Anxiety in clinical environments interferes with patient learning. Teaching effective self-care behaviors enhances patients' independence, comfort, control, and quality of life(38)

According to qualitative study conducted on Fatigue in patients undergoing chemotherapy, their self-care and the role of health professionals on 19 patients with lymphomas, breast, lung or colorectal cancer participated concurrently with treatment at a Swiss tertiary care hospital's oncology outpatient clinic. Data on patients' fatigue experiences were collected via individual interviews following their third cycle of chemotherapy.

At the start of their chemotherapy, health professionals informed patients that common side effects included fatigue. While all participants experienced different dimensions of fatigue, then, all were willing to endure it for the sake of an expected improvement in their conditions. Individuals' fatigue experiences depended largely on their particular life and illness circumstances. Most engaged in fatigue-related self-care activities and managed the symptom on their own.

Communication with or input from health professionals was virtually absent during chemotherapy. This study concludes Adequate and systematic information regarding fatigue and related self-care strategies need to be implemented at the beginning of chemotherapy, along with continuous assessment and individual guidance of patients throughout their treatment(39).

According to a study conducted on quality of life and self-efficacy of Turkish breast cancer patients undergoing chemotherapy with a sample of 141 patients. Data was gathered using a Patient Information Form, the Functional Assessment of Cancer Therapy-Breast Cancer (FACT-B), a scale about Strategies Used by Patients to Promote Health and the Rotterdam Symptom Checklist.

The result shows all quality of life dimensions were negatively affected at a significant level. Following commencement of chemotherapy, there was an increase in the negative effect on physical well-being, emotional well-being and additional concerns subscales and total FACT-B and their self-efficacy was negatively affected to a moderate degree. However, a significant degree of change did not occur in the self-efficacy. During treatment the physical symptoms and psychological distress increased and the activity level was negatively affected.

The quality of life and self-efficacy were influenced by personal and medical characteristics, showing consistency with similar studies. Because there are negative effects of cancer and chemotherapy on patients' quality of life and self-efficacy, nurses need to focus on designing psychosocial interventions to improve their self-efficacy and quality of life(40).

## 2.4. Conceptual frame work

The following diagram shows how socio-demographic factors, health status factors and information resource factors are interrelated and independently affects self-care behavior of chemotherapy patients.

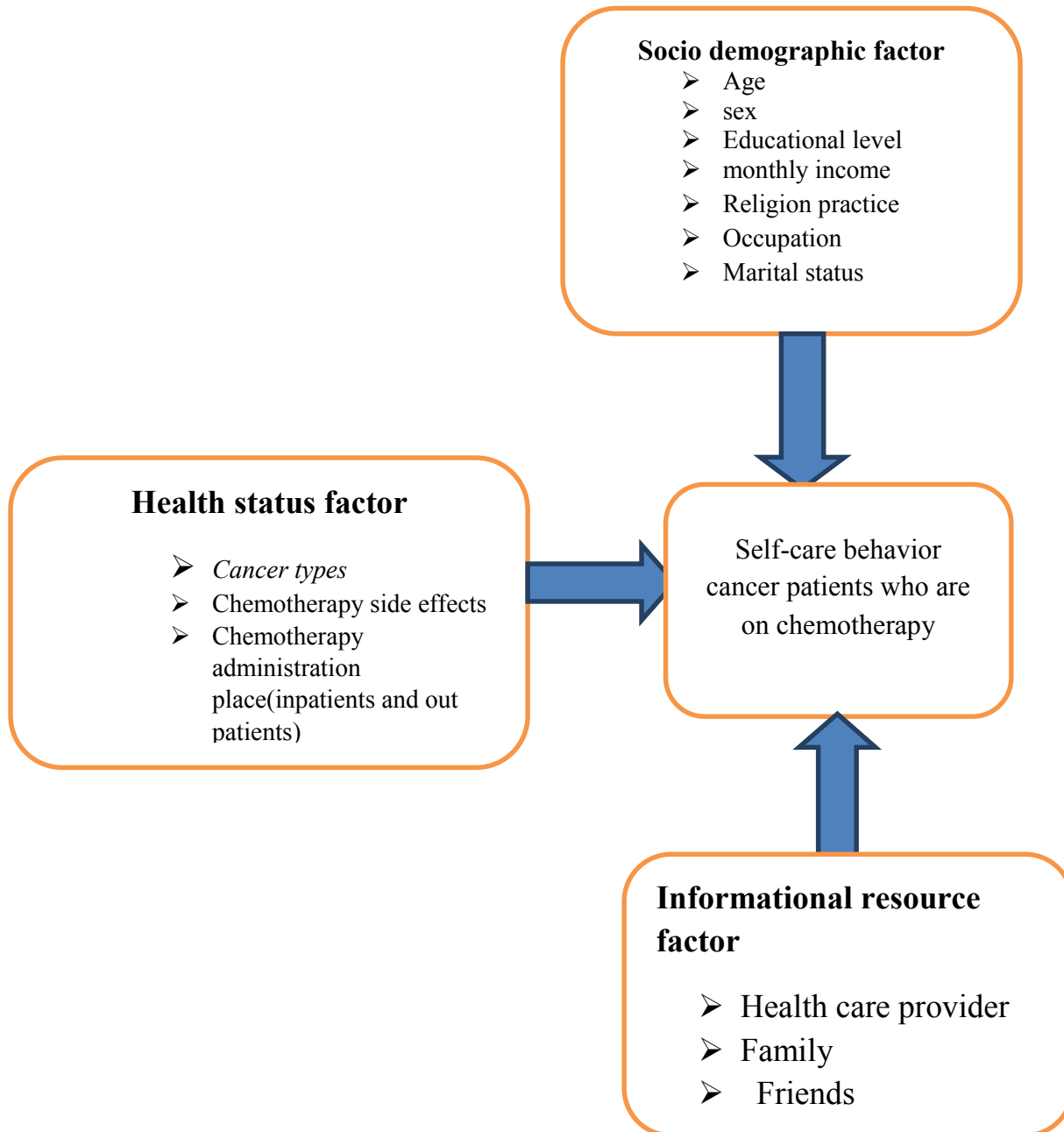


Fig 1: conceptual frame work self-care behavior among chemotherapy patients developed by researcher from literature review

## **CHAPTER THREE: OBJECTIVES**

### **3.1 General Objective**

- To assess self-care behaviors and associated factors among cancer patients who were on chemotherapy treatment at Tikur Anbessa Specialized Hospital Addis Ababa, Ethiopia, 2018.

### **3.2 Specific Objectives**

- To assess self-care behaviors of cancer patient with chemotherapy at Tikur Anbessa specialized hospital at Ababa, Ethiopia, 2018.
- To identify factors affecting to self-care behavior of cancer patient with chemotherapy at Tikur Anbessa specialized hospital Ababa, Ethiopia, 2018.

## **CHAPTURE FOUR: METHODS**

### **4.1 The Study Area and Period**

The study was conducted from March 1-March 31, 2018 at Tikur Anbessa specialized hospital, Addis Ababa, Ethiopia. Addis Ababa is the capital city of Ethiopia occupying a total of 540 km<sup>2</sup>. The city is divided into ten sub-cities and 116 Woredas, the smallest administration unit. In the city there are 14 public hospitals, of them Tikur Anbessa specialized hospital is the largest. TASH is the largest referral hospital situated in the core of the city. It is merely center for diagnoses, treatment and care of patients with cancer in the country. The oncology unit had a total 19 beds which are dedicated to adult cancer patients..

### **4.2. Study Design**

Institutional based cross-sectional study design was used.

### **4.3. Source Population**

Adult cancer patients who were treated at Tikur Anbessa specialized hospital.

### **4.4. Study Population**

The study population was those who have follow up and admitted to hospital chemotherapy patients at Tikur Anbessa specialized hospital.

**4.5 study unit:** chemotherapy patient who were randomly selected to participate on the study



## **4.6 Eligibility Criteria**

### **4.6.1 Inclusion Criteria**

- Chemotherapy patients who were treated at oncology department during data collection
- Patients with age >18 years.

### **4.6.2 Exclusion Criteria**

- Chemotherapy patients who were seriously sick during data collection

## 4.7 Sample Size

It is assumed that the precision to an acceptable approximation of the population will be 95% (confidence interval of 95%). Taking a difference of no more than 5% from the actual figures in the source population. Since current actual self-care behavior was not known, a rate of 50% was preferred to obtain the large possible sample size using the single population formulae. To compute for non-response, 10% of the required was added. The sample size was using the following formula:

$$[No = \frac{(Z \alpha/2)^2 p (1-p)}{d^2}]$$

$$d^2$$

For single population proportion using the following assumptions:

Where n = sample size

$Z(\alpha / 2) = 1.96$ , which was the upper percentile of the standard normal distribution

P= self-care- behavior rate among cancer patient on chemotherapy, which will assumed to be 50%.

d = difference from the actual figures of source population, which was taken to be 5%.

The result of computation was n= 384

Since the total population is less than 10,000, correction formula is used

$$n = \frac{no}{(1 + no/N)}$$

$$n = \frac{384}{(1 + 384/578)}$$

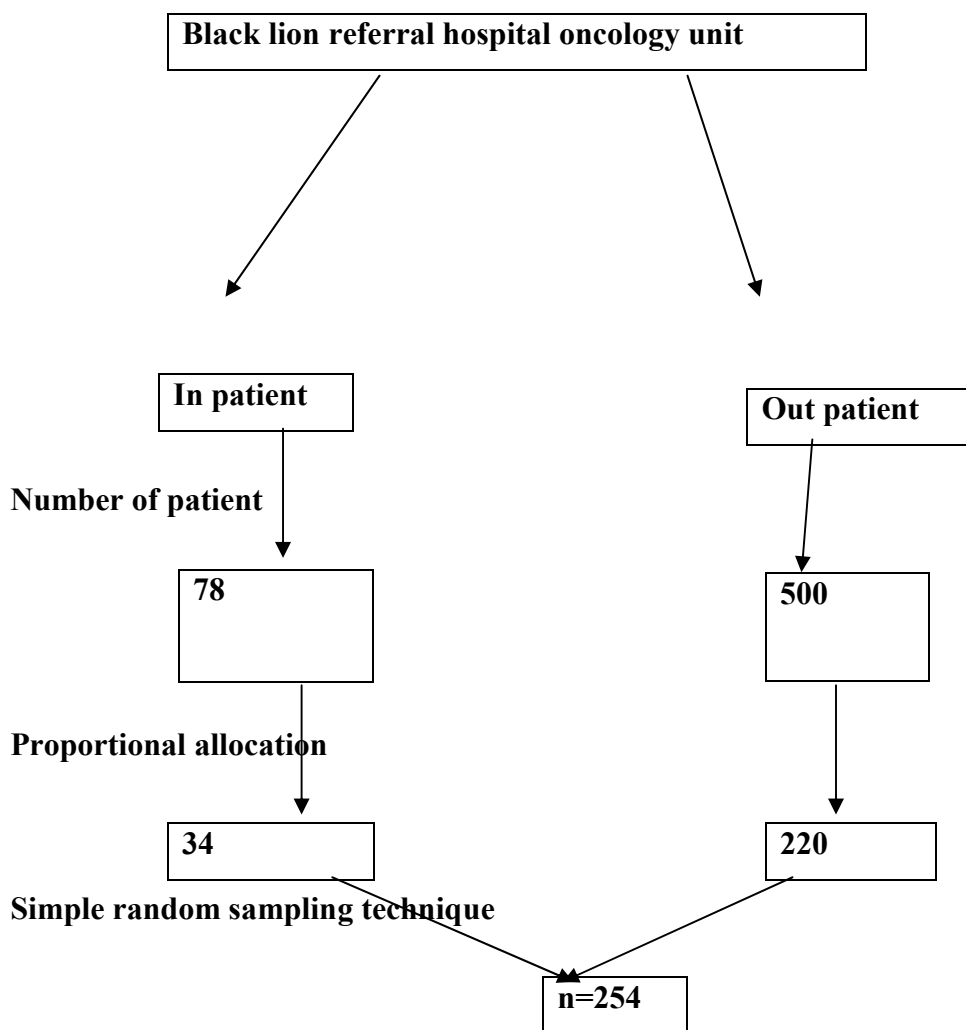
$$n = 231$$

Then including 10% non-response rate  $231 \times 10\% + 231 = 254$

## 4.8. Sampling Procedure

To select the study population simple random sampling technique was used. First the total sample size is allocated to outpatient and inpatient by proportion to the number of patients. Finally, from outpatient and inpatient, study subjects were selected by simple random sampling method.

Proportional allocation,  $n_j = (n \times N_j) / N$



**Figure 2:** Sampling procedure used for on assessment self care behavior and associated factors among patients taking chemotherapy at TASH Addis Ababa, Ethiopia 2018.

## **4.9 Variables**

### **4.8.1 Dependent variables**

- ❖ Self-care behavior among cancer patients who are at chemotherapy treatment

### **4.6.2 Independent variables**

- ❖ Age
- ❖ sex
- ❖ Marital status
- ❖ Occupation
- ❖ Income
- ❖ Religion practice
- ❖ Educational level
- ❖ Cancer type
- ❖ Chemotherapy administration place
- ❖ Family
- ❖ friends
- ❖ Health provider
- ❖ side effect

#### **4.10 Data Collection Procedure and tools**

Structured questionnaire with face to face interview was used to collect the data. Data collection was carried out by seven experienced diploma nurses and two BSc holders' supervisor nurses. Prior to data collection training was given for two days to the data collectors.

#### **4.11. Data quality control**

The quality of the data was controlled by translating the data and retranslates It. Checking the completeness of data at the end of evening, by training the data collectors and 5% pretest before actual data collection at Saint Paula's Millennium Hospital.

#### **4.12. Operational Definitions**

**Self-care behavior;** is patient that initiates in response to the side effects that are experienced secondary to chemotherapy treatments. In this study refers to good behavior that the patients perform in order to prevent or minimize the side effects.

**Good self-care behavior:** when the sum score of self-care behavior question was above the mean score

**Poor self-care behavior:** when the sum score of self-care behavior question was below the mean score

#### **4.13 Data Analysis Plan**

Collected data was entered into and cleared epi-data version 4.2 and then was exported to SPSS version 24 for further statistical analysis. Descriptive statics was used to describe the study participants with major independent and dependent variables. Frequency distribution, bar chart (descriptive statistics) and mean and standard deviation (measure of central tendency) was work out to describe the major variables of the study. Tables and figures were used to summarize data. Bivariate and multivariate regression analysis was used to look for association between predictors and dependent variables.

#### **4.14. Ethical Consideration**

Ethical clearance was obtained from Research Ethics Committee (REC) of Addis Ababa University School of Nursing and midwifery, permission from Tikur Anbessa specialized hospital and then informed written consent of individual participants was obtained after being fully informed of the study purpose and procedures. During the consent process, they were provided with information regarding the purpose of the study, why and how they were selected for this study and opportunity was given to ask questions if they had. Participants will also assured about confidentiality of the information obtained from them during the data collection by not using personal identifiers and analyzing the data in aggregates. Confidentiality and anonymity was ensured. No name or other identifying information was included in the instrument.

#### **4.15. Dissemination of Results**

The result of the study was disseminated to different organizations; AAU, school of nursing and midwifery, Zewditu Memorial hospital and other concerned body working for the improvement of patient' health problems related to self-care behavior on chemotherapy and other health issues and possibly through publication

## **CHAPTER FIVE: RESULTS**

### **5.1 Socio demographic characteristic of chemotherapy patients**

A total of 254 patients were participated in the study giving a response rate of 100%. As shown in Table 1, 34(13.4%) were from in patient and 220(86.6%) were from outpatient. Age of the respondents range between 25 and 78 years with the mean age of 43.2 years (SD  $\pm 13.03$ ). One hundred sixty two (63.8%) patients were female while 92(36.2%) were male. From the total of 254 patients, 95(37.4%) were not able to read and write and 76(24.9%) patients were married. Regarding their occupation, 82(32.3%) patients were farmers, among the patients < 1000 74(29.9%) ETB income per monthly and Breast cancer is the most prevalent 89(35.1%) type of cancer patients.

**Table 1: Socio-demographic characteristic and cancer type at Tikur Anbessa Specialized hospital, Addis Ababa, Ethiopia, in, 2018(N=254)**

<b>Characteristic</b>		<b>Frequency</b>	<b>Percent</b>
<b>Age</b>	25-34	79	31.1
	35-44	38	15
	45-55	62	24.4
	Above 55	75	29.5
<b>Sex</b>	Male	92	36.2
	Female	162	63.8
<b>Marital Statutes</b>	Single	48	18.9
	Married	121	47.6
	Divorced	56	20
	Window	29	11.4
<b>Religion</b>	Orthodox	95	37.4
	Muslim	100	39.4
	Protestant	37	14.6
	Catholic	22	8.7
<b>Occupation</b>	Framer	82	32.3
	House wife	32	12.6
	Merchant	41	16.1
	Governmental employee	49	19.3
	Unemployed	50	19.7
	Cannot read and write	76	24.9
<b>Educational Level</b>	Primary	60	23.6
	Secondary	53	20.9
	Diploma and above	65	25.6



<b>Ethnicity</b>	Oromo	79	31.1
	Amhara	86	33.9
	Tigray	59	23.2
	Somali	11	4.3
	Gurage	19	7.5
<b>Monthly income</b>	<1000	74	29.0
	1000-2000	67	26.4
	2000-5000	56	22.2
	Above 5000	57	22.4
<b>Cancer type</b>	Breast cancer	89	35.1
	Cervical	67	26.4
	Colon rectal	41	16.1
	Head and neck	42	16.5
	Lung cancer	15	5.9

From the table below cancer patients with chemotherapy get information from health care provider, family or friends among patients family prepared food especially healthy recommended were 88 (34.6%) and patients get information from health care provider during chemotherapy treatments were low 99(39%)

**Table 2 cancer patients with chemotherapy according get information from health care provider and family or friends in Tikur Anbessa Specialized hospital Addis Ababa Ethiopia in 2018**

	Response	frequency	Percent
Have family prepared food for you were especially healthy recommended	yes	88	34.6
	No	166	65.4
Health care provider given you information about the side effects during chemotherapy treatments	yes	99	39
	no	155	61

## 5.2: Side effects of cancer patients on chemotherapy treatment at Tikur Anbessa Specialized hospital in Addis Ababa Ethiopia in 2018

As depicted in Fig 2, the study revealed that the main side effects of chemotherapy experienced by the patients were nausea (83.9%), fatigue (81.9%), loss of appetite (73.6%), dryness of mouth and lips (66.5%), feeling of depression and frustration (59.1%), taste alteration (53.1%), vomiting (46.1%) and head ache (45.7%).

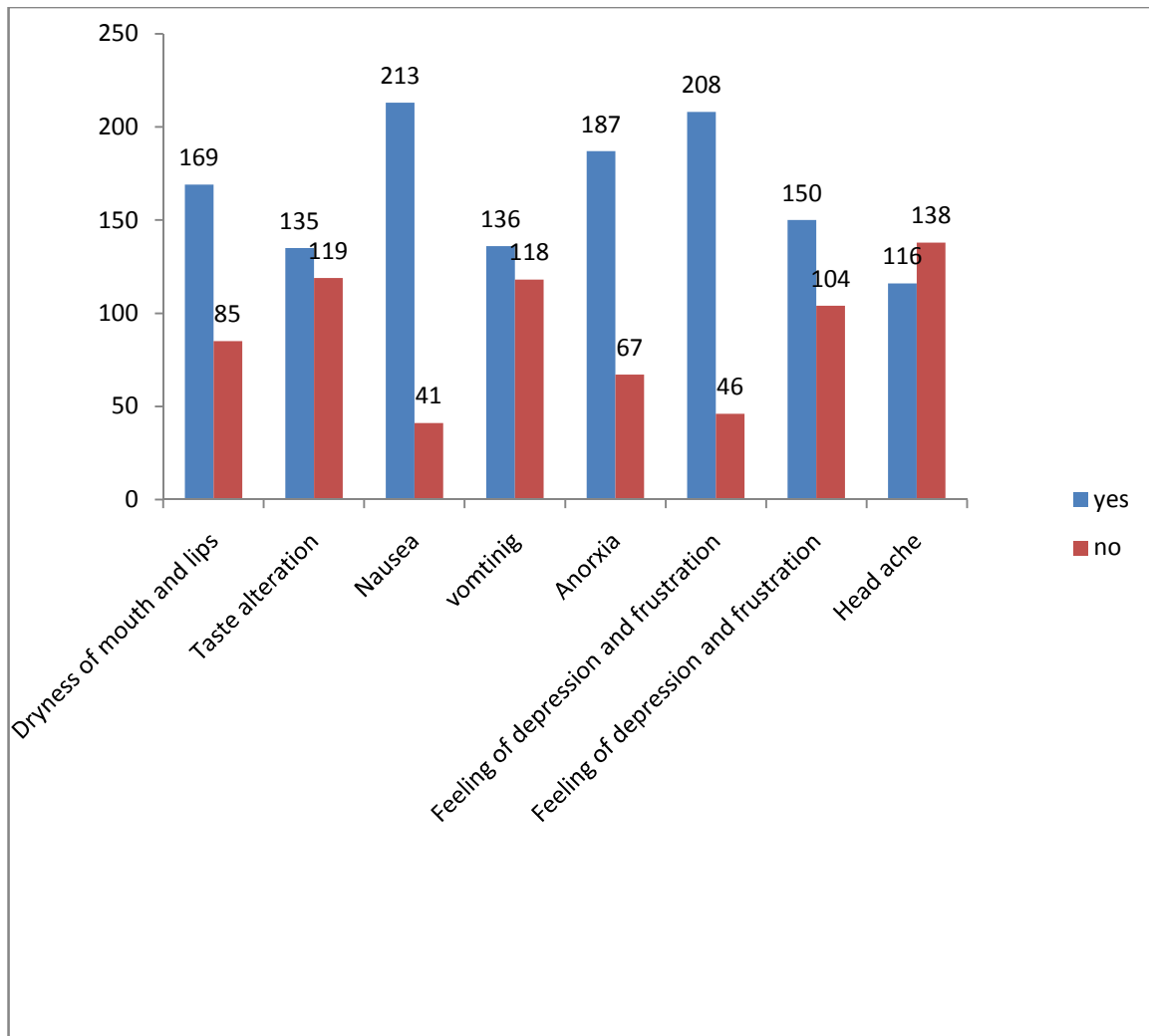


Figure 3: The prevalence of side effects among patients taking chemotherapy at Tikur Anbessa specialized hospital, Addis Ababa, Ethiopia, 2018.

### **5.3. Self-care behavior of the chemotherapy patients at Tikur Anbessa specialized hospital in 2018 (N=254)**

As illustrated in Fig 3, 114(44.9%) patients were reported having good self-care behavior while 140(55.1%) of them reported as having poor self-care behavior with the mean score of 46.2.

As portrayed in Table 3, the finding of this study showed that the most performed self-care behavior by chemotherapy patients to alleviate dryness of mouth and lips were obtaining moisten food with water and juice 208(81.1%) and sip liquid with and between meals 188(74.4%). Regarding nausea and vomiting the results revealed that 169 (66.5%) of patients notified the nurse to give them prescribed antiemetic drugs before the chemotherapy. In relation to taste alteration 168(66.1%) avoid sight and a smell of food causing unpleasant sensation and 151(59.4%) of patients increase fluid intake. Regarding to anorexia, 171(67.3%) of the patients performed eating less, 165(65%) of patients make an effort to eat and 150(59.1%) of them increase the frequency of eating. Regarding self-care behavior of fatigue, majority 165(65%) of patient performed limit the daily home activity routine work and 151(59.1%) providing adequate rest during the day. Regarding head ache, majority 153(60.2%) of the patients reported take analgesic drugs. Regarding to feeling of depression and frustration, 168(65.4%) of patients perform maintain prayers, reading Bible, Quran

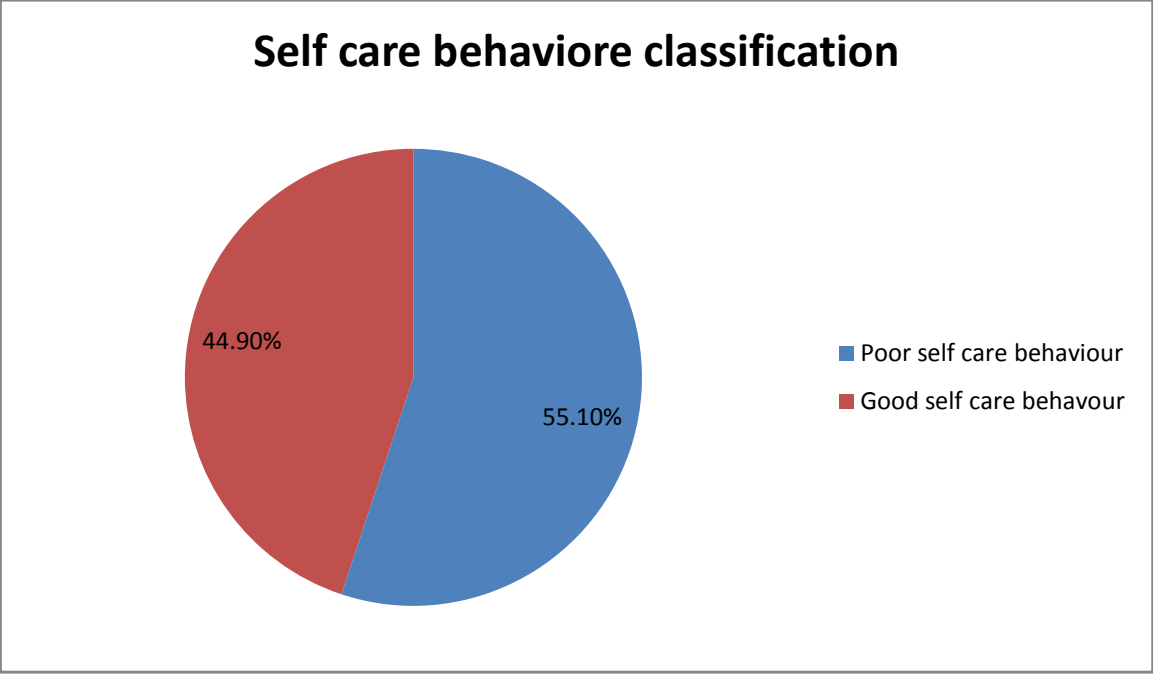


FIG 4 □ participant patients towards self care behavior at Tikur Anbessa Specialized hospital, Addis Ababa Ethiopia, in 2018

**Table 3: self care behavior chemotherapy patients at Tikur Anbessa specialized hospital in 2018 (N=254)**

<b>Self care behavior of dryness of mouth and lips</b>			
	<b>response</b>	<b>frequency</b>	<b>Present</b>
Moisten food with water and juice	Yes	206	81.1
	No	48	18.9
Sip liquid with and between meals	Yes	188	74.4
	No	66	26.6
Lubricate mucosa with butter, corn oil before meals	Yes	118	46.5
	No	136	53.6
Avoid any irritant, spicy and acidic foods	Yes	122	48
	No	138	52
<b>Self care behavior of nausea</b>			
Avoid intake of food or fluid immediately before chemotherapy	Yes	124	48.8
	No	130	51.2
Take drugs that decrease the nausea before chemotherapy	Yes	169	66.5
	No	85	33.5
avoid shaking or changing the position after eating	Yes	112	44.1
	No	142	55.9
take period or rest and relax after meal	Yes	124	48.8
	No	130	51.2
<b>Self care behavior of vomiting</b>			
Set in open ventilated place during chemotherapy.	Yes	123	48.4
	No	131	51.6
Keep disposable bag to collect vomits	Yes	143	56.3
	No	111	43.7
Avoid eating, drinking anything after chemotherapy	Yes	117	46.1
	No	137	53.9

Notify a nurse to give the prescribed antiemetic medication	Yes	169	65.7
	No	87	34.3
<b>Self care behavior of taste alteration</b>			
Oral care before eating	Yes	157	61.8
	No	97	38.2
avoid sight and smell of food causing unpleasant sensation	Yes	168	66.1
	No	86	33.9
Increase fluid intake	Yes	151	59.4
	No	103	40.6
eating blander foods	Yes	162	63.8
	No	92	36.2
<b>Self care of behavior of anorexic or loss of appetite</b>			
Eating less	Yes	171	67.3
	No	83	32.7
making an effort to eat	Yes	165	65
	No	89	35
increasing the frequency of eating	Yes	150	59.1
	No	104	40.9
using dietary supplement	Yes	114	44.9
	No	140	55.1
<b>Self care behavior of fatigue</b>			
provide adequate rest during the day	Yes	151	59.4
	No	103	40,6
limit the daily home activity routine work	Yes	165	65
	No	89	35
use the supporting of others during walking	Yes	106	41.7
	No	148	58.3

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provide adequate diet as meat, fish, milk	Yes	106	41.7
and fruits as orange ,lemon juice	No	148	58.3

### self care behavior of headache

provide pressure cap on head	Yes	100	39.4
	No	154	60.6
maintain adequate rest during the day	Yes	139	54.7
	No	115	45.3
Drink a cup of tea or coffee	Yes	108	42.5
	No	146	57.6
ask the nurse to measure the blood pressure	Yes	116	45.7
	No	138	54.3
Take analgesic drugs	Yes	153	60.2
	No	101	39.8

### Self care behavior of feeling depression and frustration

Set alone and not talk with others	Yes	115	45.3
	No	139	54.7
Maintain prayers, reading bible ,Koran	Yes	168	65.4
	No	88	34.6
Notify the nurse	Yes	106	41.7
	No	148	58.3

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#### **5.4. Factors associated to self-care behavior of cancer patients on chemotherapy**

Bivariate and multivariate analysis was performed between self-care behavior of chemotherapy patients and socio demographic status of chemotherapy patients. Binary logistic regression was performed to assess the association of each independent variable with self-care of chemotherapy patients. The factors that showed a p -value of 0.25 and less were added to multivariate regression model. In multiple logistic regression analysis age, monthly income, occupation, educational level, cancer type, information from health care provider remain significantly associated with self-care behavior.

As shown in Table 4, patients above the age of 55 years were 3 times more likely to have poor self-care behavior than those patients between 25-34 years of age [AOR:3.009; 95% CI (1.394-6)]. Who cannot read and write were 3.022 times [AOR: 3.022; 95% CI (.008, 4.059)] more likely to have poor self-care behavior than those with an educational level of diploma and above. Cancer patients with monthly income of less than 1000 birr were 2.001 times [(AOR: 2.001(95% CI (.015-4.012))] more likely to have poor self-care behavior than those with monthly income of above 5000 birr. Unemployed patient were 10 times more likely to have poor self-care behavior than employed patients [AOR: 10.305; 95% CI (3.973-26.733)]. Those patients who had lung cancer were 7 times more likely to have poor self-care behavior than patients with breast cancer [AOR: 7.143; 95% CI (2.543-20.062)]. Patients did not get information from health care provider were 2 times more likely to have poor self-care behavior than those who got information from health care providers [AOR:2.632; 95% CI (1.138-6.090)]. Patients who had fatigue were 2 times more likely to have poor self-care behavior than patients without fatigue [AOR: 2.123; 95% CI (0.348-3.08)].

**Table 4: factors associated with self-care behavior among chemotherapy patients at TASH in 2018(N=254).**

Variables		Self-care behavior		COR (95%)	AOR (95%)
		Good	Poor		
Age	25-34	52(65.9%)	27(34.1%)	1.00	1.00
	35-44	21(55.3%)	17(44.7%)	.641(.291,1.414 .271)	<b>7.484(3.57,6.99)</b>
	45-55	26(41.9%)	36(58.1%)	.375(.189,.745)	<b>4.977(2.103,11.777)***</b>
	Above 55	15(20%)	60(80%)	.13(.062,.27)	<b>3.009(1.394,6.495)*</b>
Income	<1000	2(2.7%)	72(97.3%)	.002(.000,.01)	<b>2.001(0.015,4.012)***</b>
	1000-2000	17(25.4%)	50(74.6%)	.019(.005,.068)	<b>.15(.004,.085)</b>
	2000-5000	41(73.2%)	15(26.8%)	.152(.041,.56)	<b>0.738(0.017,0.21)</b>
	Above 5000	54(94.7%)	3(5.3%)	1.00	1.00
Occupation	Framer	22(26.8%)	60(73.2%)	1.67(.699,3.992)	3.665(.692,4.009)*
	House wife	22(68.75%)	10(31.25%)	10.022(3.546,28,323)	<b>11.659(4.022,12.795)**</b>
	Merchant	28(68.3%)	13(31.7%)	9.812(3.696,26,048)	<b>10.658(4.257,9.931)</b>
	Unemployed	9(18%)	41(82%)	9,396(3.683,231)	<b>10.305(3.9,73,26.733)**</b>

	Governmental Employee	33(67.3%)	16(32.7%)	1.00	1.00
Educational level	Cannot read and write	8(10.5%)	68(89.5%)	.021(.008,.058)	<b>3.022(.008,4.09)***</b>
	Primary	24 (40%)	36(60%)	.121(.052,.283)	<b>.113(.02,0.285)</b>
	Secondary	27(50.9%)	26(49.1%)	.189(.08,.447)	<b>.172(1.012, 2.116)</b>
	Diploma and above	55(84.6%)	10(15.4)	1.00	1.00
Cancer type	Breast	38(38%)	62(62%)	1.00	1.00
	Cervical	33(54.1%)	29(47.9)	5.25(2.172,12,692)	<b>5.00(2.073,12.305)**</b>
	Colon Rectal	7(31.8%)	15(68.2%)	6.105(2.423,15.383)	<b>6.01(2.382,15.401)*</b>
	Head and Neck	24(.52%)	22(47.82 %)	1.713(.597,4.914)	1.639(.467,3.15)
	Lung	12(50%)	12(50%)	6.937(6.937(2.500)	<b>7.143(2.543,20.062)***</b>
Health care provider give you information	Yes	38(39.4%)	61(61.6%)	1.00	1.00
	No	76(49.03%)	79(50.97 %)	2.108(1.26,3.528)	<b>2.632(1.19, 6.090)**</b>
Fatigue	Yes	93(44.7%)	115(55.3 %)	1.414(.190,.904)	<b>2.123(0.348,3.08)***</b>
	No	21(45.6%)	25(54.4%)	1.00	1.00

**P<0.05\*, p<0.01\*\*, p<.001\*\*\***

## CHAPTER SIX: DISCUSSIONS

This is facility based cross sectional study attempted to assess self-care behavior and associated factor among chemotherapy patients in Addis Ababa, Ethiopia, 2018

The study found that about 44.9% had good self-care behavior and 55.1 % poor self-care behavior. Self-care behavior in this study was found low.

In relation to dryness of mouth and lips most of the study participants were doing moistened food with water and juice before eating (81.1%) and sip liquid with and between meals (74.4%). This study supported study in Egypt in which most of the patient performed moistened food with water and juice before eating and sip liquid with and between meals (79.4%) (1)

Regarding to nausea and vomiting, the study result revealed that patients notified nurses to give them prescribed antiemetic drugs before the chemotherapy (66%). This indicated that patients know medical measures may control their symptoms. An incomparable finding was reported in study conducted in china, where patient's dietary modification behavior is common self-management strategies for nausea and vomiting. This difference could be due to difference of geographical location and cultural difference. (29)

Majority of patients mentioned self-care behavior regarding to taste alteration oral care before eating, avoiding sight and smell of foods causing unpleasant sensation, increase fluid intake and eating blander foods. In consistent finding was reported in Egypt in which majority of the patients not performed any activity. This may be due to information of self-care behavior was inadequate among patients. (1)

Regarding self-care behavior of anorexic or loss of appetite in the present study, most of patients performed eating less, making an effort to eat and increasing the frequency of eating. In contrast to this, study in Egypt reported that most of the participants performed aroma in foods and drink dark honey. This difference may be due to lack of information, geographical differences. (1)

Regarding to self-care behavior for fatigue, majority of patients were limited their daily home activity and routine work for few days after chemotherapy. This agrees with study conducted

in Thailand where patients may perform self-care activity to conserve energy and to alleviate fatigue such as napping, sleeping more than usual, distracting themselves or modifying their activity. (12)

Regarding self-care behavior of head ache, majority of the patients reported took analgesic drugs (65.7%). The same finding was reported in Egypt in which majority of the performed took analgesic drugs and 65% of the patients reported partial relief of the problem. (1)

In this study patients mentioned both pre and post chemotherapy drugs makes them to suffer from, depression, frustration, fear of death , worry about body image and chemotherapy which could affect their physical wellbeing and psychological function .the study result revealed that majority of the participants, to relief feeling of depression and frustration they pray, read bible, Koran or listening bible. Among participants, 65.4% of patients reported partial relief of depression and frustration. This finding was same with Egypt, which reported that among patients in Egypt, majority of the patient's (65.9%) reported relief depression and frustration. (1)

Related to the association of factors; there was significant association of socio demographic factors and self-care behavior in current study. This result was consistent with the study conduct in china on self-care self-efficacy among patients with colon rectal and gastric cancer on, but the study conduct in Thailand on self-care behavior chemotherapy patients, there was no association with socio demographic. This discrepancy might be due to difference in study setting, socio demographic factors, and sample size. Having age above 55 years (AOR=3.009(1.394, 6.495) has significant association with poor self-care behavior 25-34. The present finding was support with study conducted in china. Culture may be impact the elderly patients who report lower level of self-efficacy for self-care activity. However, study conducted in Thailand showed that individual's age was not significantly associated with self-care behavior. This difference may be due to geographical and simple size difference. (34, 12)

Those individual with monthly income less than one thousand 2.001 (0.015, 4.012) had poor self-care behavior more likely than those having above 5000. The present study was incomparable with the study conducted in china where government has recently began to pay more attention to rural living conditions and has implemented the new rural cooperative

medical insurance. In this study people with higher education have higher confidence while those respondents who were not read and write were (3.022(.008, 4.09) to make use of self-management support. This finding was in line with other finding which is conducted in Egypt. (34,12)

Those individual unemployed (AOR=10.305(95%CI=3.973, 26.733) had poor self-care behavior more likely than governmental employee. This study was in line with study conducted in china unemployed cancer patients had lower scores of self-care self-efficacy than did full-time-employment. (34)

The result of current study investigated that cancer type were significantly associated with self Care behavior. Those participants who had cervical cancer were 5 times more likely to have poor self-care behavior compared to those who have breast cancer (5.00(2.073,12.305. similarly those participants who had colon and rectal cancer were 6 times more likely to have poor self-care behavior compared to those who have breast cancer6.01(2.382,15.401) and those participants who had lung cancer were about 7 times more likely to have poor self-care behavior compared to those who have breast cancer(7.143(2.543,20.062).

In this study participant not get information from health providers 50.9% had poor self-care more than those who get information. However, study conduct in Thailand showed that patients who get information from health care provider were 83.5% this difference may be due to access of internet and technological advancement. (12)

Those individual who had fatigue (AOR= 2.123(95%CI=.348, 1.627) had poor self-care behavior more likely those hadn't have fatigue. This study supporting studied with Thailand on self-care behavior chemotherapy patient's severe fatigue is common with chemotherapy patients who can be very disrupting and distressing for patients. Fatigue conditions and self-care measures by patients since common sense self-care strategies are proven ineffective.(12)

# **CHAPTER SEVEN STRENGTH AND LIMITATION OF THE STUDY**

## **7.1 Strengths**

- ✓ This study is the first study that attempted to assess self care behavior on chemotherapy patients
- ✓ Found baseline information for future health plan
- ✓ Response rate was 100 %
- ✓ Sample size was high ( approximately close with total number of patients attending TASH)

## **7.2 Limitation**

- ✓ Lack of literature hinders further discussion and comparison
- ✓ Since the study design is cross sectional it cannot revealed cause effects

# **CHAPTER EIGHT CONCLUSION AND RECOMMENDATION**

## **8.1 Conclusions**

- ✓ The study found that there was poor self-care behavior 55.1% and 44.9% good self care behavior of chemotherapy patients.
- ✓ Age, income, educational level, occupation, cancer type, and information from health care provider and fatigue had significantly associated with self-care of chemotherapy patients.
- ✓ Self-care behavior performed by studied patients was insufficient to provide complete relief of the side effect due to inadequate information about the side effects of chemotherapy and how to manage it.

## **8.2 Recommendation**

### **Federal ministry of health**

- ❖ Increase the number of qualified nurses during chemotherapy treatment to provide the patient and family members with information regarding chemotherapy its purpose side effects and how to manage these side effects
- ❖ A manual booklet of side effects of chemotherapy and how to manage it should be write in simple words and use attractive pictures given to the patients and family
- ❖ Pre –service and in-service training program for the purpose of refreshing and updating knowledge of nurses working with patients receiving chemotherapy about self-care behavior to alleviate side effects of chemotherapy

### **Nursing school**

- ❖ Encourage the oncology nurse to attend and participant in educational programs workshops and reviewing update oncology research.

### **Hospitals**

- ❖ Establishing rehabilitation center for cancer patients that focus on physical and psychological aspect of care.
- ❖ Developed standard care for patients receiving chemotherapy



- ❖ Encourage the patient and family members to attend health education and counseling program about chemotherapy related side effects and how to deal with side effects

**Other researchers**

- ❖ Should further incorporate other factors using longitudinal or qualitative study design
- ❖ Interventional study should be done

## CHAPTER NINE REFERENCES

1. Moursy AME-S, Ead AYS. Self care practices of chemotherapy patients. *Life Science Journal*. 2014;11(4):212-22.1. Lev EL, Daley KM, Conner NE, Reith M, Fernandez C, Owen SV. An intervention to increase quality of life and self-care self-efficacy and decrease symptoms in breast cancer patients. *Scholarly inquiry for nursing practice*. 2001;15(3):277-94.
2. Karimi S, Makhsosi BR, Seyedi-Andi SJ, Behzadi M, Moghohfeh Y, Mohammadinasrabadi K, et al. Surveying the effect of a self-care education program on severity of nausea and emesis in colorectal cancer patients under chemotherapy. *Journal of multidisciplinary healthcare*. 2017;10:301-7.
3. Wolinsky JB, Colson YL, Grinstaff MW. Local drug delivery strategies for cancer treatment: gels, nanoparticles, polymeric films, rods, and wafers. *Journal of controlled release*. 2012;159(1):14-26.
4. Skeel RT, Khleif SN. *Handbook of cancer chemotherapy*: Lippincott Williams & Wilkins; 2011.
5. McCorkle R, Ercolano E, Lazenby M, Schulman-Green D, Schilling LS, Lorig K, et al. Self-management: Enabling and empowering patients living with cancer as a chronic illness. *CA: a cancer journal for clinicians*. 2011;61(1):50-62.
6. Howard LM, Barley EA, Davies E, Rigg A, Lempp H, Rose D, et al. Cancer diagnosis in people with severe mental illness: practical and ethical issues. *The lancet oncology*. 2010;11(8):797-804.
7. Omran S, Saeed AMA, Simpson J. Symptom distress of Jordanian patients with cancer receiving chemotherapy. *International journal of nursing practice*. 2012;18(2):125-32.
8. Pandey M, Thomas BC. *Rehabilitation of the Cancer Patient*. *World Journal of Psycho-Social Oncology*. 2012;1(5).
9. Jones P. *Design for care: Innovating healthcare experience*: Rosenfeld Media; 2013.
10. Kapucu S. Nutritional issues and self-care measures adopted by cancer patients attending a university hospital in Turkey. *Asia-Pacific journal of oncology nursing*. 2016;3(4):390.
11. Munk T. *Strategies to optimise nutritional practice for patients at nutritional risk—With special emphasis on hospital food and individual dietary counselling*: Videnbasen for Aalborg

UniversitetVBN, Aalborg UniversitetAalborg University, Det Sundhedsvidenskabelige FakultetThe Faculty of Medicine, Aalborg UniversitetshospitalAalborg University Hospital; 2015.

12. Maikeow K. Self-care behaviours of chemotherapy patients. *J Med Assoc Thai.* 2012;95(6):S30-S7.

13. Kondylakis H, Marias K, Tsiknakis M, Kiefer S, Bucur A, Dong F, et al., editors. *iManagecancer: developing a platform for empowering patients and strengthening self-management in cancer diseases.* 2017 IEEE 30th International Symposium on Computer-Based Medical Systems (CBMS); 2017: IEEE.

14. Tamayo GJ, Broxson A, Munsell M, Cohen MZ, editors. *Caring for the caregiver.* *Oncology nursing forum*; 2010.

15. Jacobsen PB, Jim HS. *Psychosocial interventions for anxiety and depression in adult cancer patients: achievements and challenges.* *CA: a cancer journal for clinicians.* 2008;58(4):214-30.

16. Garcia S. *The Effect of Patient Education on Anxiety Levels in Patients Receiving Chemotherapy for the First Time.* 2014.

17. Gay K. *Post-Diagnosis: A Networked Framework for Narrative Reassemblage.* Clemson University; 2017.

18. Dodd MJ, Miaskowski C, editors. *The PRO-SELF Program: a self-care intervention program for patients receiving cancer treatment.* *Seminars in Oncology Nursing*; 2000: Elsevier.

19. Fayers PM, Machin D. *Quality of life: the assessment, analysis and interpretation of patient-reported outcomes.* John Wiley & Sons; 2013.

20. Schalock RL, Kiernan WE. *Habilitation planning for adults with disabilities.* Springer Science & Business Media; 2012.

21. Klimmek RKW. *Understanding the "work" of transitional cancer survivorship: Case studies of rural older adults and their support persons.* The Johns Hopkins University; 2013.

22. Porter LS, Keefe FJ, Garst J, McBride CM, Baucom D. Self-efficacy for managing pain, symptoms, and function in patients with lung cancer and their informal caregivers: associations with symptoms and distress. *PAIN®*. 2008;137(2):306-15.
23. Isenring EA, Capra S, Bauer JD. Nutrition intervention is beneficial in oncology outpatients receiving radiotherapy to the gastrointestinal or head and neck area. *British journal of cancer*. 2004;91(3):447-52.
24. Bauer J, Jürgens H, Frühwald MC. Important aspects of nutrition in children with cancer. *Advances in Nutrition: An International Review Journal*. 2011;2(2):67-77.
25. Amina Mohamed Rashad El-Nemer<sup>1</sup> MIIE-Z, Hanan El-Sayed Mohamed El-Sayed<sup>1</sup> OHMMS. Utilization of a Self- Care Educational Program for Alleviating Chemotherapy Induced Physical Side Effects *journal*. 2015;3.
26. Riegel B, Jaarsma T, Strömberg A. A middle-range theory of self-care of chronic illness. *Advances in Nursing Science*. 2012;35(3):194-204.
27. Posma ER, van Weert JC, Jansen J, Bensing JM. Older cancer patients' information and support needs surrounding treatment: An evaluation through the eyes of patients, relatives and professionals. *BMC nursing*. 2009;8(1):1.
28. Calbom C. *The Juice Lady's Living Foods Revolution: Eat Your Way to Health, Detoxification, and Weight Loss with Delicious Juices and Raw Foods*: Charisma Media; 2011.
29. Lou Y. *Self-management of cancer treatment-related fatigue, nausea, vomiting and oral mucositis in Chinese cancer patients*: Queensland University of Technology; 2011.
30. Ali AS, Mohammed ER, Ismail HM, Fahd NS, El-maogod NAA, Osman NM, et al. *Pattern of malignancies on radiotherapy treatment versus chemotherapy treatment in oncology unit in Suez Canal University Hospital in Ismailia-Egypt*.

31. Chou F-y, Dodd M, Abrams D, Padilla G, editors. Symptoms, self-care, and quality of life of Chinese American patients with cancer. *Oncology nursing forum*; 2007.
32. Lovell MR, Lockett T, Boyle FM, Phillips J, Agar M, Davidson PM. Patient education, coaching, and self-management for cancer pain. *Journal of Clinical Oncology*. 2014;32(16):1712-20.
33. McClements PL, Madurasinghe V, Thomson CS, Fraser CG, Carey FA, Steele RJ, et al. Impact of the UK colorectal cancer screening pilot studies on incidence, stage distribution and mortality trends. *Cancer Epidemiology*. 2012;36(4):e232-e42.
34. Qian H, Yuan C. Factors associated with self-care self-efficacy among gastric and colorectal cancer patients. *Cancer nursing*. 2012;35(3):E22-E31.
35. Kazdin AE. Evidence-based treatment and practice: new opportunities to bridge clinical research and practice, enhance the knowledge base, and improve patient care. *American psychologist*. 2008;63(3):146.
36. Baqir W, Brown C, Chapman S, Donovan E, Fajemirokun T, Gkountouras G, et al. Prescribing and Research in Medicines Management (UK & Ireland) Conference 2016 Health Foundation London January 29th 2016 “Ethics, Economics and the Future of Medicines—A Population Perspective”. *pharmacoepidemiology and drug safety*. 2016;25:3-23.
37. Yennurajalingam S, Frisbee-Hume S, Palmer JL, Delgado-Guay MO, Bull J, Phan AT, et al. Reduction of cancer-related fatigue with dexamethasone: a double-blind, randomized, placebo-controlled trial in patients with advanced cancer. *Journal of Clinical Oncology*. 2013;31(25):3076-82.
38. Lin MF, Hsieh YJ, Hsu YY, Fetzer S, Hsu MC. A randomised controlled trial of the effect of music therapy and verbal relaxation on chemotherapy-induced anxiety. *Journal of clinical nursing*. 2011;20(7-8):988-99.
39. Network NCC. Guidelines Version 2.2015 Panel Members Cancer-Related Fatigue. NCCN clinical practice guidelines in oncology: cancer-related fatigue.[Accessed 27 April 2015].

40. Akin S, Can G, Durna Z, Aydiner A. Preliminary testing of a Turkish version of the Strategies Used by Patients to Promote Health (SUPPH) scale in a sample of breast cancer patients. *Journal of Nursing and Healthcare of Chronic Illness*. 2009;1(4):303-10.

## **ANNEX I. INFORMATION SHEET**

Research Topic; Self-care behavior and associated factors among cancer patients who are on chemotherapy treatment at Tikur Anbessa Specialized Hospital in Addis Ababa Ethiopia 2018

Investigator Tsige Gebre

Dear Respondent

I am a master's student at Addis Ababa University, College of health sciences, school of Allied health science department of nursing and midwifery .I kindheartedly request you to participate in a study that is aimed at assessing the self-care behavior cancer patients who are in chemotherapy treatments and associated factors in Tikur Anbessa Specialized hospital in Addis Ababa.

Participation in this study is voluntary; you can also withdraw at any time from the study if you feel uncomfortable .Confidentiality will be ensured by not using your name or address on the questionnaire .There is no risks involved in participating in this study. The study has no immediate benefits to the respondent but will have benefits later in improving the self-care behavior of cancer patients in long runs by implementation of studying at the time of patient caring. I welcome any questions if you have any about the study and your participation. Should you have any questions about the research or any related matters, please contact the researcher at

+251-913578155

Email: [tisgegebre09@gmail.com](mailto:tisgegebre09@gmail.com)

**ANNEX II CONSENT SHEET**

I understand the nature the study, benefits, and my right to voluntary participation, confidentiality and withdrawal from the study without any oppression .I have had the opportunity to ask questions and answered to my satisfaction .To express my agreement I have signed below

I hereby freely consent to take part in this study

Signature of the participant \_\_\_\_\_

Date \_\_\_\_\_

Supervisor Name \_\_\_\_\_ signature \_\_\_\_\_

Date \_\_\_\_/\_\_\_\_\_/E.C signature \_\_\_\_\_

Name of interviewer

Date \_\_\_\_/\_\_\_\_\_/\_\_\_\_ E.C signature \_\_\_\_\_

Yours faithfully,



**ANNEX III ENGLISH QUESTIONNAIRE,**

**PART I: SOCIO DEMOGRAPHICAL RELATED TO QUESTIONS**

S.N	Characteristic	Response
101	Age	In years _____
102	Sex	Male Female
103	Marital statuses	Single Married Divorced Window
104	Religion	Orthodox Muslim Catholic Protestant
105	Occupation	Farmer House wife Merchant Unemployed Governmental
106	Educational level	Cannot read and write Primary Secondary Diploma and above
107	Ethnicity	Oromo Amahara Tigray Garage Somali
108	Monthly income	-----EB

**Part 2: Questions on side effects chemotherapy patients at TASH in 2018**

Characteristic	Response
<b>201. Dryness of mouth and lips</b>	Yes
	No
<b>202. Tastealteration</b>	Yes
	No
<b>203. Nausea</b>	Yes
	No
<b>204. Vomiting</b>	Yes
	No
<b>205. Anorexia (loss appetite)</b>	Yes
	No
<b>206. Fatigue</b>	Yes
	No
<b>207 .Feeling of depression and frustration</b>	Yes
	No
<b>208 .Headache</b>	Yes
	No

**PART III QUESTION ON SELF CARE BEHAVIOR AMONG CANCER PATIENTS WHO ARE ON CHEMOTHERAPY TREATMENT**

<b>1. Self care behavior of dryness of mouth and lips</b>	<b>Yes</b>	<b>no</b>
1. Moisten food with water and juice		
2. Sip liquid with and between meals		
3. Lubricate mucosa with butter, corn oil before meals		
4. Avoid any irritant, spicy and acidic foods		
<b>2. Self care behavior of Nausea</b>		
1. .Avoid intake of food or fluid immediately before chemotherapy		
2. Take drugs that decrease the nausea before chemotherapy		
3. avoid shaking or changing the position after eating		
4. take period or rest and relax after meal		

<b>3. Self care behavior of vomiting</b>		
1. Set in open ventilated place during chemotherapy.		
2. Keep disposable bag to collect vomits		
3. Avoid eating, drinking anything after chemotherapy		
4.Notify a nurse to give the prescribed antiemetic medication		
<b>4. Self care behavior of taste alteration</b>		
1. Oral care before eating		

2. avoid sight and smell of food causing unpleasant sensation		
3. Increase fluid intake		
4.eating blander foods		
<b>5. Self care of behavior of anorexic or loss of appetite</b>		
1.Eating less		
2.making an effort to eat		
3.increasing the frequency of eating		
4.using dietary supplement		
<b>6. Self care behavior of fatigue</b>		
1. provide adequate rest during the day		
2. limit the daily home activity routine work		
3. use the supporting of others during walking		
4. provide adequate diet as meat, fish, milk, and fruits as orange ,lemon juice		
<b>7. self care behavior of head ache</b>		
1. provide pressure cap on head		
2. maintain adequate rest during the day		
3. Drinking a cup of tea or coffee		
4. ask the nurse to measure the blood pressure		
5. Take analgesic drugs		
<b>8. Self care behavior of feeling depression and frustration</b>		
1. Set alone and not talk with others		
2. Maintain prayers, reading bible, Koran		
3. Notify the doctor		

Part IV. Associated factors questions

1. Cancer type

1. Breast cancer
2. Cervical cancer
3. Colon rectal cancer
4. head and neck cancer
5. Lung cancers

2. Where you have your chemotherapy?

1. Inpatient
2. out patient

3. Have family prepared food for you that were especially healthy recommended?

1. Yes
2. No

4. Health care provider given you information about the side effects during chemotherapy treatment?

- A. Yes
- B. No

**ጥናቱ ለሚሳተፉ የመረጃና የስምምነት ፎርም በአማርኛ**

**መግቢያ**

በአዲስ አበባ ዩኒቨርሲቲ የሁለተኛ ደረጃ ግሪት ምርታቸውን ለመመረቅ በአዲስ አበባ ከተማው ስጥብ ሚኒስቴር ትቶ ህብረተሰብ ጤና ተቋማት ውስጥ የካንሰር ህክምና የሚከታተሉት ታማሚዎች ላይ የኬሞተራፒ የጎንዮሽ ምልክቶችና መደረግ ያለባቸው የራስ እንክብካቤ ለማጥናት የታሰበ ጥናት ነው።

1. የጥናቱ ፅዕን ጥቁር አምባሳ ስፒታል ውስጥ የካንሰር መድሀኒትን የሚወስዱ ታካሚዎች የኬሞተራፒ የጎንዮሽ ግሮች የራስ እንክብካቤ ድርጊቶችን ዳሰሳ

2. የጥናቱ ዓለማዊ ይህ ጥናት ዋነኛ አላማ ጥቁር አምባሳ ስፒታል ውስጥ የካንሰር መድሀኒትን የሚወስዱ ታካሚዎች የኬሞተራፒ የጎንዮሽ ግሮች የራስ መከከባከብ ድርጊት እና ተጓዳኝ ጉዳዮችን ለመዳሰስ በተጨማሪም የጥናቱ ውጤት ሙሉ ለሙሉ የሚመለከታቸው አካላት እንደ ግብአት ሊጠቀሙበት የሚችሉበት መሆኑን ለአገራችን እንዲሁም በሌሎች በሐገራት ያለውን ግርለ መፍታት ሊያግዝ ይችላል።

3. የጥናቱ ሂደትና የሚወስድ ብህ/ሽጊዜ፡-  
እኔ አሁን ቃለ መጠይቁን እስጦታ ለሁ። ፅርስዎ ቃለ መጠይቁን በማንበብ ለጥናቱ መሳካት የሚረዱኝን መረጃ መሰለዎትን መልስ እንድትሰጡኝ መልካም ትብብርና ፍቃድ እንከትላለሁ። ለመሰረተ ነው።

4. ሚስጥራዊነቱ ፅርስዎ የሚሰጡኝ መረጃ በአጠቃላይ በሚስጥር ይጠበቃል በተለየ መልክ የርስዎን ማንነት የሚገልፅ መረጃ የለውም። የጥናቱ ምውጤት አጠቃላይ የጥናቱን ተሳታፊዎች እንጂ ማንንም ግለሰብ የሚገልፅ አይደለም። በንግግር ወይም በፅሁፍ የጥናቱ ተሳታፊዎችንና ጥናቱን የሚያያይዝበት ምንምም ክንያት የለም። 5. መብት፡-

በዚህ ጥናት ለመሳተፍ ሙሉ ፍቃድ እንከት ይጠይቃል። በጥናቱ ለመሳተፍ ወይም ላለመሳተፍ መብት አለዎት። ጥያቄውን በምትሞሉበት ወቅት ምንም ዓይነት ሁኔታ ካጋጠመዎት በማንኛውም ጊዜ ማቋረጥ ይችላሉ። በተጨማሪም ግልፅ ያልሆኑ ሃሳቦች ካሉ ለማብራራት ደስተኛ ነኝ። መልስ ለመስጠት የማይፈልጉትን ጥያቄዎች ለመመለስ ምስጋኔ ይደረግ።

አድራሻ ጥናቱን ወይም የጥናቱን ቅድመተከተል በተመለከተ ማንኛውንም ጥያቄ በማንኛውም ጊዜ ለመጠየቅ ከዚህ በታች የተጠቀሱትን አድራሻ ይጠቀሙ

ስም፡ ፅጌገብረ  
ስልክ ፡ 0913578155 አ. ሜይል ፡ [tsigegebre09@gmail.com](mailto:tsigegebre09@gmail.com)

**ተሳታፊው በጥናቱ ላይ እንዲሳተፉ ፈቃድ መጠየቁ ያቅጥብኛል**

የተሳትፎ መረጃና ፍቃድ ያደኝነት ማረጋገጫ ቅጽ አንብቤ ያለሁ። የጥናቱን ዓላማ፣ ቅድመ-ተከተል፣ ጉዳትና ጥቅሙን፣ ሚስት-ራዊነቱን የመሳተፍ መብትና የግንኙነት አድራሻ በግልፅ ተረድቻለሁ። ግልፅ ያልሆኑ ልኝን ጉዳዮች ለመጥቀስ እድል ተሰጥቶኛል። በማንኛውም ጊዜ ላይ በጥናቱ ያለኝን ተሳትፎ ማቋረጥ እንደምችል ወይም መልስ መስጠት በማልፈልገው ጉዳይ ላይ መብት እንዳለኝ ተረድቻለሁ። ስለዚህ በጥናቱ ላይ በፍቃድ ያደኝነት ለመሳተፍ ወስኛለሁ።

የተሳታፊው ፊርማ ----- ቀን -----/-----/-----

የመረጃ ሰብሳቢ ፊርማ ----- ቀን -----/-----/-----

የሱፐርቫይዘር ፊርማ ----- ቀን -----/-----/-----

መረጃው የተሰበሰበበት ተተቋም ----- ቀን -----/-----/-----

አማርኛ መጠይቅ

ክፍል አንድ - ማህበራዊና-ስነ-ሕዝብ ባህሪ ያላቸው ጥያቄዎች

ተ.ቁ		መልስ
101	እድሜ	_____ በአመት
102	ጾታ	1. ወንድ 2. ሴት
103	የጋብቻ ሁኔታ	1. ያገባ/ች 2. ያላገባ/ች 3. የፈታች/የፈታ 4. የሞተች/በት/ባት
104	ሀይማኖት	1. ኦርቶዶክስ-ክርስቲያን 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ(ይግለጹ)
105	ስራ	1. ገበሬ 2. የቤት እመቤት 3. ነጋዴ 4. የመንግስት ሰራተኛ 5. ስራ ፈላጊ
106	የትምህርት ደረጃዎ ምን ድነው?	1. መፃፍና ማንበብ የማይችል 2. አንደኛ ደረጃ ትምህርት ያጠናቀቀ 3. ሁለተኛ ደረጃ 4. ዲፕሎማና ከዛበላይ
107	ብሔር	1. አሮሞ 2. ትግሬ 3. አማራ 4. ሶማሌ 5. ሌላ
108	የወር ገቢ	



**የኬሞተራፒ መድሃኒት የጎንዮሽ ልክቶችን በካንሰር ታካሚዎች ላይ**

ተ. ቁ	የጎንዮሽ ልክቶች	
201	<b>የአፍ መድረቅ</b>	
	1. አዎ	
	2. አይ	
202	<b>የምግብ ጣዕም መቀየር</b>	
	1. አዎ	
	2. አይ	
203	<b>ማቅለሽለሽ</b>	
	1. አዎ	
	2. አይ	
204	<b>ማስመለስ</b>	
	1. አዎ	
	2. አይ	
205	<b>የምግብ ፍላጎት ማጣት</b>	
	1. አዎ	
	2. አይ	
206	<b>የድካም ስሜት</b>	
	1. አዎ	
	2. አይ	
207	<b>ቶሎቶሎ የመናደድና የመደበት ስሜት</b>	
	1. አዎ	
	2. አይ	
208	<b>ራስ ምታት</b>	
	1. አዎ	
	2. አይ	

**ክፍል ሶስት በኬሞተራፒያሉ ታማሚዎች ስለራሳቸው ሚያደርጉትን እንክብካቤ ሚዳስሱ ጥያቄዎች፡**

301 ስለ አፍና የከንፈር ድርቀት የራስ እንክብካቤ	አዎ	አይ
ምግብን በውሀ ስንጠቅም ማቆየት ለማድረግ ማረጋገጥ		
ሲመገቡ ስንጠቅም ማረጋገጥ ለሆስፒታል ስለሚገኙት ማረጋገጫዎች		
የደረቀውን እና የከንፈር በቅቤ ስንጠቅም ለሆስፒታል ስለሚገኙት ማረጋገጫዎች		
የሚያቃጥሉ ምግቦችን ስንጠቅም (ቅመማቅመምና አሲድ) ነክስ መውሰድ ስንጠቅም		
302 ስለ ማቅለሽለሽ የራስ እንክብካቤ		
ከኬሞ በፊት ምንም አይነት ምግብ ስንጠቅም ስለመውሰድ		
ከኬሞ በፊት የፀረ ትውከት መድሃኒቶችን ስንጠቅም		
የአተኛኝት ለውጥ ባለማድረግ		
ከ ምግብ በኋላ በቂ እረፍት ስንጠቅም		
ለ ሀኪምን በማሳወቅ		

<b>303 ስለማስመለስ የራስ እንክብካቤ</b>		
በነፋሻማ ቦታ መቀመጥ		
ለሚያስመልሱት ማጠራቀሚያ ፊስታል ይዞ መቀመጥ		
ከኬም በኋላ ምንም አይነት መጠጥና ምግብ ባለመቅመስ		
ለነርቶማሳወቅየት-ውክት-መድሃኒት እንዲሰጠኝ		
<b>304 ስለምግብ ጣዕም ማጣት የራስ እንክብካቤ</b>		
ጥሩ መዘዛያላቸው ምግቦችን በማቅረብ		
የምግብ ማጣፊጫዎችን በመጠቀም		
ጥሩ መዘዛና ሽታ ያሌላቸው ምግቦችን ከማስደጋጋት በማራቅ		
ውሀ በብዛት በመጠጣት		
ለነርስ በማሳሰብ		
<b>305 ስለምግብ ፍላጎት ማጣት የራስ እንክብካቤ</b>		
ከምግብ በፊት የአፍንፅ ህጻን መጠበቅ		
የምግብ ጣዕም የሚቀይሩ ምግቦችን ፈሳሽ ነገሮች እንደ ጋፊት ፊት ለፊት ሽጭብና መቆጠብ		
ከምግብ በፊት ህጻን መጠበቅ		
መልካም ማግኘት ያለው ምግብና ንፁህ ማርመጠጣት		
<b>306 ስለድካም ስሜት የራስ እንክብካቤ</b>		
በቀን በቂ እረፍት በመውሰድ		
የለት ተለት ስራዎችን በመቀነስ		
በእንቅስቃሴ ጊዜ የሌሎችም ድጋፍ በመጠየቅ		
በቂ ምግብ በመመገብ እንደ ወተት፣ አሳ፣ ስጋና ፍራፍሬ ብርቱካን፣ የሎሚ ጭማቂ ወዘተ የመሳሰሉትን በመመገብ		

<b>307ከለ ራስ ምታትየራስእንክብካቤ</b>		
ራስን በጨርቅ ወይንም ሻሽ ማሰር		
በቂ እረፍት መውሰድ		
ሻይ ወይንም ቡና መጠጣት		
የደም ግፊትዎን እንዲለካ ነርስን መጠየቅ		
ማስታገሻ መድሀኒቶችን መውሰድ		
<b>308ከለቶሎ ቶሎ የመናደድና የመደበት ስሜት የራስ እንክብካቤ</b>		
ለብቻ መቀመጥና ከሰዎች ጋር አለማውራት		
መጸለይ መጽሀፍ ቅዱስ ፣ ቁራን ማንበብ		

ክፍል አራት. ተያያዥ ጉዳዮች

401. የካንሰር አይነት

1. ጡት

2. ማህፀን

3. የትልቅአንጀትና ፊንጢጣ

4. ካንገት በላይ

5. ሳምባ

6. ሌላ

402. ኬሞ ተራፒ የሚወስዱት የት ነው ?

ሀ. ተኝቶ ህክምና ክፍል ውስጥ

ለ. በተመላላሽ ህክምና

403. ቤተሰብና ጓደኛ የሚያመጣለዎት ምግብ በጠና ባለሙያዎች የተመከሩ ንጹህ ምግቦች ናቸው።

ሀ. አዎ ለ. አይ

404. ጤና ባለሙያዎች ስለህመምዎንና የተሰማዎትን ለማውራት በቂ ጊዜ ይሰጥዎታል

ሀ. አዎ ለ. አይ