



COLLEGE OF HEALTH SCIENCE

SCHOOL OF NURSING AND MIDWIFERY

KNOWLEDGE AND EXPERIENCE OF WOMEN WITH BREAST CANCER
RECEIVING CHEMOTHERAPY IN SELECTED PUBLIC HOSPITALS,
ADDIS ABABA ETHIOPIA, 2021

BY: KALKIDAN AYALEW (BSC)

RESEARCH THESIS SUBMITTED TO SCHOOL OF NURSING AND
MIDWIFERY, COLLEGE OF HEALTH SCIENCES ADDISABABA
UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF SCIENCE IN ONCOLOGY NURSING

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ADDIS ABABA, ETHIOPIA

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ABBREVIATIONS

BC	Breast cancer
DCIS	Ductal carcinoma in situ
CI	Confidence Interval
PEI	Psycho educational intervention
CT	Chemotherapy
SPHMMC	Saint Paul's Millennium Medical College
TASH	Tikur Anbessa Specialized Hospital

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ABSTRACT

Background: Breast cancer is the most common cancer in women worldwide, in 2018 2.1million new cases are diagnosed. In Ethiopia due to the increasing awareness of breast cancer patients are taking chemotherapy in different parts of the country but patient's knowledge of chemotherapy and experience of chemotherapy has not assessed very well and this study will try to assess patients' knowledge about chemotherapy.

Objective: the objective of the study is to assess the knowledge and experience of women with breast cancer receiving chemotherapy in selected public hospitals Addis Ababa Ethiopia, 2021.

Methods: Institutional based cross-sectional study was conducted and data collected from TASH and SPHMMC from February 8 to March 1, 2020. Data was entered in to Epi-data version of 4.5 and export to SPSS version 20.0 descriptive statics such as frequency, percentages, mean and standard deviation were done and displayed in tables. Bivariate and multivariate logistic regression analysis was employed.

Result: the study involved 250 participants. The mean age of the respondents were 43.35 ± 11.1 . Of the total 135 (54%) respondent's were not knowledgeable and 115(46%) were knowledgeable. Age less than 45 years Age >45 years and patients who lived in Addis Ababa were associated to higher knowledge. Respondents took chemotherapy fourth to sixth cycle patients and who are currently single associated to worst experience and the distance time it takes to get to the hospital when it is three to six hours were associated to tolerable experience.

Conclusion and recommendation: The study revealed that more than half of the participants were not knowledgeable and more than half of the participants had worst experience. Hence health care providers should provide information about chemotherapy to their patients and should teach how to manage the possible side effects

Keywords: breast cancer, knowledge, experience

1. INTRODUCTION

1.1. Background

Cancer is the leading cause of mortality and morbidity worldwide it characterized by the uncontrolled growth and spread of abnormal cells (1).According to GLOBOCAN 2020 there were an estimated 19.3 million new cases of cancer and 10 million deaths from cancer worldwide in 2018(2).

One of the most commonly diagnosed cancers worldwide is breast cancer which accounts 2.3 million (11.7%) new cases of the total in 2020(3). Breast cancer incidence in developed countries is higher, while relative mortality is greatest in less developed countries (4).And it is increasing particularly in developing countries where the majority of cases are diagnosed in late stages (5).In developed countries like the USA, in 2019, approximately 268,600 new cases of invasive breast cancer and 48,100 cases of DCIS (ductal carcinoma in situ) were diagnosed among US women, and 41,760 women died from this disease (6).The incidence rate of breast cancer ranges from 19.4 per 100,000 people in East Africa to 89.7 per 100,000 in West Europe (WHO, 2015).Breast cancer is growing strongly in South America, Africa and Asia. According to the World Health Organization (WHO) country profile report in 2020, breast cancer is the leading cancer in Ethiopia with an estimated 16, 133 (20.9%) new cases and 5 years prevalence of 48.5%. Despite the fact that breast cancer is mostly curable disease in developed countries, Ethiopia is one of the countries with highest age standardized mortality rate which is reported to be 22.9 per 100,000 population (7).

Breast cancer has different risk factors such as, unhealthy lifestyles (8). Long time fertility that happens with menarche in early ages and menopause in old ages, the use of preventive pregnancy hormones and having no children are also among risk factors. Obesity after menopause, use of hormone replacement therapy, physical inactivity and alcohol consumption has also been reported as risk factors. In contrast, having children and breast-feeding can be among preventive factors (9).

Chemotherapy is the most common and frequent treatment for cancer disease(10).But is also responsible for multiple negative side effects (10). Chemotherapy regimens for breast cancer

vary greatly with respect to their constituent agents, frequency, and route of administration, effectiveness, and side effects. Given that available chemotherapies have advantages and disadvantages relative to each other, it would be useful for health care providers to understand how these differences may influence individual patient preferences (12). Breast cancer requires individualized treatment for survival and quality of life common treatments are chemotherapy, radiation, surgery, or a combination of the three (12,13).

Patients in countries with poor healthcare infrastructure experience cancer treatment are largely unknown. The theme ‘experiences related to body’ included four subthemes: changes in eating and bowel habits, dry and sensitive skin, fever and feelings of abnormal body sensations, most of which could be related to side effects. The experiences of changes in eating and bowel habits were reported to be difficulty in eating and keeping food down, as well as episodes of diarrhoea (15).

Patients experience different side effects of chemotherapy such as, fatigue, body aches, pain, various types of neuropathy such as severe numbness and tingling in their extremities, blood clots, short-term memory loss, lingering cough, skin change, a metallic taste in their mouth after receiving chemotherapy, weight gain, blurry eye sight, having their teeth removed, low blood counts, allergic reactions to medications, and severe burning near their breasts, under their arms, and all over their body ineffectively managed, these side effects can lead to interruptions and delayed cancer treatment (16).

Cancer patients demand information to understand chemotherapy-related adverse effects and actions to be taken. Provision of sufficient pre-chemotherapy information including side effects and self-care strategies was proven to reduce certain treatment-related concerns and physical and psychosocial outcome (17).

1.2. Statement of the problem

Breast cancer (BC) has now become the most commonly diagnosed cancer in women in several sub-Saharan African countries (18). This is a shift from previous decades when cervical cancer was the most commonly diagnosed cancer (19). Furthermore, the burden of BC is likely to increase in the coming decade this probably reflects increases in the prevalence of known risk factors associated with urbanization (20).

Research findings indicate that patient education has to be individualized and that we have to take into consideration patient's knowledge when providing education. Patients' changing knowledge expectations during treatment time must be taken into account in the education process (21).

Research is lacking on the specific needs, concerns and experiences of women who receive chemotherapy for breast cancer. Understanding these could help to target information, psychological support and interventions more appropriately. In addition, there is little research on how best to enable the decision making process for women who are faced with choices about whether to have chemotherapy before or after surgery (22). One of the main factors contributing to unrealistic expectation is oncologist's reluctance to disclose information about the prognosis especially when it is poor (23).

In Ethiopia, breast cancer is the leading cancer in women and now a days due to the increasing awareness about breast cancer many patients are taking chemotherapy in different parts of the country but patient's level of knowledge about chemotherapy and the side effects that they are experiencing has not assed very well and this study will try to assess patients' knowledge about chemotherapy, their problems regarding on chemotherapy experience and their needs for information and support.

1.3. Significance of the study

The finding of this study will increase our understanding regarding patients' knowledge and experience towards chemotherapy. Nurses and other health care providers can use this study finding to improve the preparation and support of patients undergoing chemotherapy and health institutions can use the findings to improve their care delivery system depending on patients' needs and make their service evidence based and aware policy makers to take into consideration about chemotherapy and patients needs regarding information and support.

And also it will help other researchers by being a baseline data for further studies on breast cancer patient's knowledge and experience about chemotherapy.

2. LITERATURE REVIEW

2.1. Epidemiology of breast cancer

For women, breast cancer is one of the most commonly diagnosed cancers globally. In 2020, approximately 2.2 million new cases of invasive breast cancer and were estimated in women constituting 11.1% of all cancer cases in addition, 685,000 deaths globally(3).

2.2. Treatment of breast cancer

Treatment of breast cancer can be done by several methods; surgery, radiation therapy, hormone therapy and chemotherapy (24).Chemotherapy can be used as a main line of treatment or as a supplement to other treatments. For example, it may be used before (neoadjuvant therapy) or after (adjuvant therapy) surgery in which the rationale is reducing tumor size and keeping the cancer from recurring, respectively chemotherapy is a systemic treatment which uses pharmacological agents alone (monotherapy) or in combination with each other (combination delivery) to destroy cancerous cells (25).

2.3. Knowledge about chemotherapy

Chemotherapy knowledge is linked to managing side effects, reducing exposure to potential infection, and adjusting lifestyle behaviors while going through treatment(26).

A study conducted in Nigeria on patient's knowledge and experience about chemotherapy showed that 98% of the participants claimed to have knowledge about chemotherapy and the possible side effects and they claimed they obtain the information from health professionals, nurse, doctors and internet(27). Also a study conducted in Saudi Arabia revealed that from the study participants only 15.3% reported that they knew the name when the patients were asked about their chemotherapy names, while 84.7% were not able to mention the name of chemotherapy drug that they are taking. In knowledge regarding on managing side effects 45.8% scored higher knowledge and 11.1% has low knowledge regarding on side effects(28).

Another study conducted in USA on African American women suggested that women with newly diagnosed breast cancer did not know the size of their tumor (n = 57), the status of their hormone receptors (n = 65), the name of their specific recommended therapy (n = 66), or why chemotherapy was recommended to them (n = 80) (29).

A study conducted in Lancashire northern England suggested that the initial, and unexpected, shock of diagnosis was disabling in terms of retaining and recalling information about treatment plans and side effects. Once chemotherapy had started, participants reported that it was challenging to obtain information. Chemotherapy nurses were knowledgeable about chemotherapy but the busyness of chemotherapy units was not conducive to ask question participants also reported they had expected side effects of chemotherapy will disappear when the treatment is completed but they face long term complication after they completed (22).

Another study conducted in southern California in 54 women shows that prior to the large volume of information provided by their medical oncologist, women knew about cancer treatments based primarily on information from peer survivors, friends, and family members and societal knowledge from the medias knowledge gained from societal sources are not accurate and this study suggests that older women's has limited knowledge about the treatment chemotherapy and treatment, participants had specific prior knowledge and preferences (30). In study conducted in Taiwan in patients with breast cancer undergoing chemotherapy shows that the newly diagnosed breast cancer patients undergoing treatment generally have insufficient knowledge of cancer and its treatment, physiological symptoms, and coping strategies. This study found that disease-specific care knowledge had significantly improved by the third administration of chemotherapy in PEI patients (31)

2.4. Experience about chemotherapy

In study done in Nigeria showed that the common side effects experienced by the patients were vomiting (19%), diarrhoea (20%), fever (13%) , weakness in 14 (14%)and constipation (7%) others were loss of appetite hair loss and mucositis in the mouth (27).

In women with breast cancer during chemotherapy treatment, the most distressing and burdensome clusters were made up of emotional, gastrointestinal and un-wellness symptoms (e.g., changes in skin, itching) (32).Another study shows that a symptom cluster consisting of fatigue, depression and perceived cognitive impairment was found before, during and after completion of chemotherapy (33).

A study that has done in Netherlands in immigrant women's from different countries revealed that the most common side effects experienced by the woman are nausea, vomiting, hair loss, loss of energy and fatigue, taste and smell alterations, psychological distress and chemotherapy-related-hospitalizations and also sexual problem (34).

A study conducted in Malaysia suggested that of all symptoms, patients were generally most worried about vomiting (33.3%), loss of appetite (23.3%), nausea (16.7%), hair loss (10.0%) and numbness (10.0%)... Majority of patients (86.7%) believed that none of these symptoms were overlooked by healthcare professionals (35). Another study conducted in Malaysia again showed that from a total of 141 breast cancer patients on chemotherapy prevalence for depression was 19.1% and prevalence for anxiety was 24.1%. The total prevalence of patients that may have had psychological distress as determined by HADS was 29% (36).

Another study conducted in Sweden Stockholm suggested that the most common side effects experienced by patients are lack of energy, feeling sad, difficulty concentrating, worrying and pain These were the most common symptoms among the women. Symptoms that were less common were, mouth sores I don't look like myself sexual interest, sweats were found to be the most distressing (37).

Another study conducted in Kansas showed that patients experience short term memory loss, lack of focus and concentrate, decreased performance and fatigue during after treatment (38).

A study conducted in United Kingdom within 31 patients showed that the majority of women interviewed (28/31) reported experiencing fatigue, low mood, and cognitive problems taking chemotherapy. for cognitive problems memory, concentration and attention were highlighted (39).

A study conducted in Canada, Ottawa showed that nausea and/ or vomiting requiring a physician or emergency room visit was ranked as the worst side effect (60 %), followed by diarrhoea requiring hospitalization (40 %), hand–foot syndrome (37 %), and peripheral neuropathy (34 %). The side effects identified as most acceptable were alopecia (88.4 %) and fatigue (24 %)(12)

2.5. Factors associated to knowledge

Patients who had completed primary or secondary school were more prone to unrealistic expectations than those who had completed high school (44.1 % versus 32.4 %) and college or above (44.1 % versus 23.5 %) and in response to questions on the purpose of treatment, knowledge of treatment intent. The patients who had graduated from primary or secondary school were more likely to misunderstand the purposes of treatment than those who had completed high school (46.9 % versus 34.4 %) and college or above (46.9% versus 18.8 %) (40).

In other study in USA results showed that chemotherapy knowledge was affected by marital status ($p = .018$) and income. comparisons revealed women who were married had significantly higher chemotherapy knowledge scores and also knowledge score is greatest in woman whit high yearly income when compared with low yearly income woman's (26).

In a study conducted in USA showed that women who perceived better interpersonal communication with physicians, less self-efficacy, or were less involved in their own treatment decision making held stronger beliefs about the necessity of chemotherapy. Women without financial difficulty or having stronger social functioning had more knowledge of their cancer and recommended chemotherapy (29).

2.6. Factors associated with experience

A study conducted in Japan suggested that more than one-half of patients suffered a moderate to severe degree of fatigue, alopecia, constipation and loss of appetite. However, the most annoying problems were nausea, poor taste and paresthesia followed by fatigue, and fever and insomnia. Patients complained nausea as an unbearable experience. And some patients believed the nausea was associated with highly to moderately emetogenic anticancer drugs, while others believe the nausea was secondary to opioid use(41). In a study done in Netherlands religion offered the women guidance, strength and meaning to the disease, but also limited the women to openly talk about their disease (34).

In a study conducted in Uganda almost all participants described how they actively dealt with the discomfort and negative experiences of side effects may be related to the information they received prior to start of the treatment (15).

In a study that has done in Malaysia shows that anxiety was significantly associated with practical, family, emotional problems and spiritual or religious concerns whereas depression was associated with practical problems such as transportation, financial and work problems. In addition depression and anxiety were associated with some of the physical problems such as eating difficulties, fatigue, indigestion, memory/concentration, nausea and sleep (36).

A study conducted in Tanzania showed that negative effects on social role and physical function and overall health status and quality of life were reported, as well as a high level of problems in taking chemotherapy and these mainly associated with pain and financial difficulties (42).

2.7. Conceptual frame work

According to different studies conducted in the world factors that associated with knowledge and experience are age, educational background, gender, treatment side effects, information about the treatment, economic status.

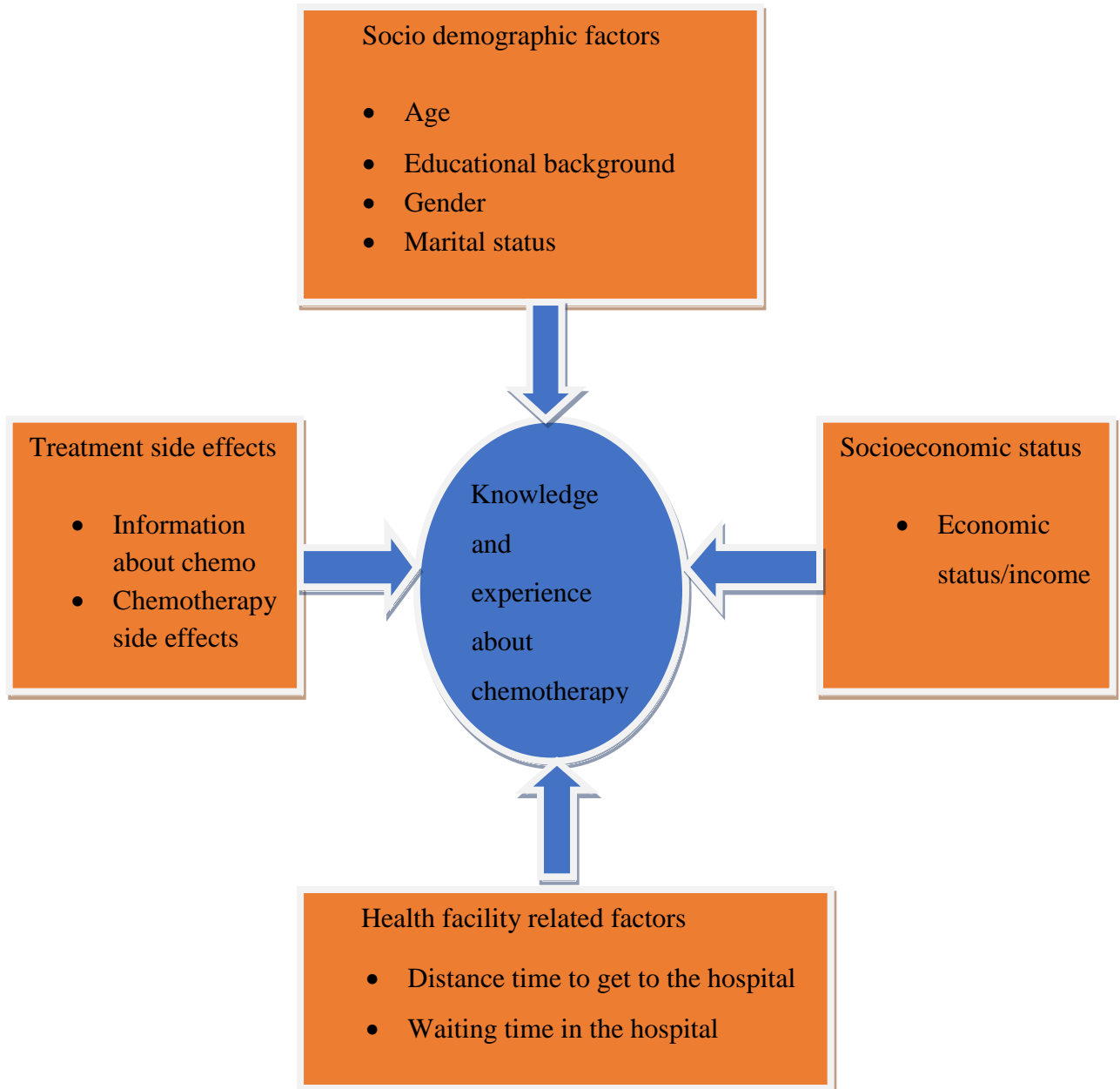


Figure1, conceptual framework for knowledge and experience receiving chemotherapy for breast cancer patients (43).

3. OBJECTIVES

3.1. General objective

The main objective of the study is to assess knowledge and experience receiving chemotherapy women with breast cancer in Addis Ababa, Ethiopia 2021.

3.2. Specific objective

The specific objectives of this study are:

- ❖ To measure knowledge of breast cancer patients about chemotherapy in TASH and SPHMMC Addis Ababa, 2021.
- ❖ To determine the experience of breast cancer patients about chemotherapy in TASH and SPHMMC Addis Ababa, 2021.
- ❖ To identify factors associated with knowledge of breast cancer patients about chemotherapy in TASH and SPHMMC Addis Ababa, 2021.
- ❖ To identify factors associated with the experience of breast cancer patients about chemotherapy in TASH and SPHMMC Addis Ababa, 2021.

4. METHODS

4.1. Study area and period

This study was conducted in Addis Ababa governmental hospitals which has oncology units. These are Tikur Anbessa Specialized Hospital (TASH) and Saint Paul's Hospital Millennium Medical College (SPHMMC) from February 8 to March 8 2021 .

Addis Ababa is the capital of Africa and also Ethiopia. Addis Ababa is the largest city in Ethiopia and the city is showing a great development a population dense city which is estimated around 4.7 million. The Tikur Anbessa specialized hospital was Ethiopia's only center for cancer offering oncologic surgery, chemotherapy and radiotherapy with one cobalt-60 teletherapy machine. The hospital had a capacity of 600 beds; 18 beds were dedicated to cancer patients (44)

4.2 Study design

An institutional based cross sectional study design was conducted.

4.3 Source of Population

All women with breast cancer came for chemotherapy in TASH and SPMHCC from February 8 to March 8 2021.

4.3.1 Study population

Study population was all randomly selected women with breast cancer who undergoes chemotherapy during the study period and who fulfilled the inclusion criteria during the study period of time.

4.4 Inclusion and Exclusion Criteria

4.4.1 Inclusion Criteria

Breast cancer patients taking chemotherapy that age ≥ 18 years old and agree to participate in the study.

4.4.2 Exclusion criteria

Critically ill patients and not able to communicate and.

Patients who are taking first cycle chemotherapy were excluded.

4.5 Sampling

4.5.1 Sample Size Determination

Hence prior research not available on the study topic single proportion formula was used with 50% proportion. To estimate the sample size the following formula was utilized

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

Where:

n = sample size desired

Z α /2= 1.96 (Z=score corresponds to 95% confidence level)

p = 50% prevalence

d= 0.05 (Margin of error)

Hence n = (1.96)² × 0.5(1 – 0.5)/(0.05)²=384 patients

Since the study population is less than 10,000 using the population correction formula to get the required minimum sample size. Which is

$$n = \frac{n}{1+n/N}$$

n= desired sample size

N= total population (breast cancer patient who came to take chemotherapy starting from July8 to Nov 5 2020 was in TASH 480 and in SPHMMC 144 and summation of the two is =624

$$n = 1 + (384/624) n = 240$$

After adding non response rate 10% it will be 264

4.5.2 Sampling Technique

- ❖ Systematic sampling technique was used to select the eligible study participants from the oncology unit of both hospitals during data collection period. Since there is no sampling frames every 2nd client visiting the oncology unit was selected. To find the last participant, the full sample size was assigned equivalently based on the number of patients in each hospital. Samples were selected after proportional allocation for each hospital.

Table 1: proportional allocation and sample size allocation

No	Addis Ababa public hospitals	Population	Proportional allocation in each hospital
1	TASH	480	203
2	SPHMMC	144	61
	Total	624	264

4.6 Study Variables

4.6.1 Dependent variables

- Knowledge of the patient about chemotherapy.
- Experience of the patient on chemotherapy.

4.6.2 Independent variables

- Socio demographic characteristics such as age, sex, marital status, educational status and religion.
- Information that's given to the patients.
- Environmental factors such as distance to get to the hospital, family history, place of residency.
- Socio economic status such as monthly income, occupation and family size.

4.7 Operational Definitions

Knowledge about chemotherapy; There were 7 questions regarding knowledge and each question has one mark. By using knowledge mean score cut point the score divided into two levels knowledgeable and not knowledgeable.

Experience of the chemotherapy; There were 30 questions regarding experience of respondents that answers all of the time, most of the time and a good bit of the time considered as worst experience, and some of the time, a little of the time, hardly any of the time, and none of the time considered as tolerable experience. By using experience mean cut point the score divided into two levels worst experience and tolerable experience.

4.8 Data collection tool and procedures

The study tool has four parts the 1st is socio demographic questions the 2nd part consists 7 knowledge about chemotherapy questionnaires which adapted from coolbrandit(45). The 3rd part contains 30 questions of chemotherapy experience questionnaires adapted from the breast chemotherapy questionnaire.

Face to face interview was held among women with breast cancer who are taking chemotherapy in the selected study areas using an interviewer administered questionnaire.

The questionnaire will be translated to the local language Amharic by bilingual translators for data collection.

4.8.1 Pre-test

The questionnaire was pre-tested in 5% of study participants at Tikur Ambesa Specialised Hospital to see the relevance of the instrument to answer the question in the study prior to the actual data collection period study. Necessary modifications were made on the questionnaire. The participant's were totally excluded from the main study.

4.9 Data Quality Management

To maintain the quality of the data structured and validated English version of questionnaire was adapted and translated to Amharic. Before actual data collection started pretest was done on 5% of the study participants and minor changes were made in the questionnaire.

To ensure data quality, the data collectors (Bsc nurses) were provided a two day training on the contents of the questionnaire, the identification of patients based on the inclusion/exclusion criteria, how to approach and get consent from patients.

4.10 Data entry and Analysis

Data was entered in to Epi-data version of 4.5 and export to SPSS version 20.0 and before analyzing the data, responses were coded properly. Descriptive statics such as Frequency, percentages, mean and standard deviation were done and displayed in tables. Bivariate and multivariate logistic regression analysis was employed to evaluate independent effect exposure variable on the outcome variable. Those with $p < 0.05$ was considered as statistically significant and results displayed in text and tables.

4.11 Ethical Considerations

Ethical clearance was obtained from institutional review board of Addis Ababa University and of institutional board of Saint Paul Millennium Medical College.

Participants were informed about the objective of the study prior to the data collection, asked for their consent before participating in the study. Participation was voluntarily and participants had

the right to refuse or withdraw whenever they wish. Confidentiality was maintained by omitting their names and personal identifiers throughout the study.

4.12 Dissemination of Results

The result of this study will be submitted to Addis Ababa University, College of Health Sciences School Nursing and Midwifery and stakeholders. The findings will also be published on peer reviewed and reputable journals will be presented on international and local scientific forums.

5. RESULT

5.1 Socio demographic characteristics of study participant

It was intended to include 264 participants in the study but data collected from 250 participants with 13 (5%) non response rate. The age range is between 20 to 74 years old with a mean of 43.35, SD \pm 11.1, range of 54 years old, the highest number of participants lies 35 to 60. From the study participant, 133 (53.2%) are Orthodox religion followers. Among women who participated in study 66 (26.4%) had secondary level educational status, 78 (31.2%) unable to read and write, 62 (24.8%) diploma and above and 62 (24.8%) had primary educational status and highest monthly income was 27300 and lowest 100 per month. (Table 2)

Among 250 participants 76 (30.4%) were unemployed and 158 (63.2%) were married. The family size of study the participant was 1-11 and the mean family size was 4.48. From the total participants 143 (57.2%) came from outside of Addis Ababa .85 (34%) of the women mentioned it took them 1-2 hours to get to the oncology center, 64(25.6%) less than one hour, 54 (21.6%) three to six hours and 47 (18.8%) mentioned eight hour and above. (Table 2)

Regarding on history of cancer in the family 183 (73.2%) had no family history of cancer. From the total participant 155 (62%) never heard about chemotherapy before, 48 (19.2%) heard about chemotherapy from television, 32 (12.8%) heard from friends and family, 13 (5.2%) from radio and 2 (0.8%) from news paper. (Table 2)

Table 2: Socio-demographic characteristics of women with breast cancer who are receiving chemotherapy in selected public hospitals Addis Ababa, Ethiopia, 2021 (n=250)

Variables	Frequency	Percentage%
Age		
<45	162	64.8
>45	88	35.2
Religion		
Orthodox	133	53.2
Muslim	65	26
Protestant	48	19.2
Catholic	4	1.6
Educational status		
Unable to read and write	78	31.2
1-8	44	17.6
9-12	66	26.4
Diploma and above	62	24.8
Ethnicity		
Amhara	96	38.4
Tigre	18	7.2
Oromo	88	35.2
SNNPR	47	18.8
Others	1	.4
Occupation		
Unemployed	76	30.4
Merchant	27	10.8

Farmer	22	8.8
Private	62	24.8
Government	61	24.4
Others	2	.8
Marital status		
Married	158	63.2
Currently single	92	36.8
No of family		
< or = 5	199	79.6
>5	51	20.4
Monthly income		
< or =1000	64	25.6
>1000	186	74.4
Are you living in Addis Ababa		
Yes	107	42.8
No	143	57.2
Distance from hospital		
<1 hour	64	25.6
1- 2 hours	85	34
3-6 hours	54	21.6
>8 hours	47	18.8
Any history of cancer in your family		
Yes	67	26.8
No	183	73.2

Chemotherapy cycle		
Second-third	87	34.8
Fourth-sixth	91	36.4
Seventh ninth	61	24.4
>Ten	11	4.4
Information about chemotherapy		
From different medias	63	25.2
Family and friends	32	12.8
I never heard	155	62

5.2 Respondents knowledge of chemotherapy

There were 7 questions regarding knowledge and each question has one mark. By using knowledge mean score cut point the score divided into two levels knowledgeable and not knowledgeable. From the 250 respondent's 135 (54%) were not knowledgeable whereas 115 (46%) were knowledgeable.

Table 3: Distribution of respondent's knowledge level for women with breast cancer who are receiving chemotherapy in selected public hospitals Addis Ababa, Ethiopia, 2021(n=250)

Knowledge	Mean	Frequency	Percentage%
Not knowledgeable	≤15.1	135	54
Knowledgeable	>15.1	115	46

5.3. Respondent's experience towards chemotherapy

There were 30 questions regarding experience of respondents that answers all of the time, most of the time and a good bit of the time considered as worst experience, and some of the time, a little of the time, hardly any of the time, and none of the time considered as tolerable experience. By using experience mean cut point the score is divided into two levels worst experience and

tolerable experience. From the total 250 respondents, 133 (53.2%) had the worst experience whereas 117 (46.8%) had tolerable experience.

Furthermore, the experience of the respondents showed loss of hair as the worst side effect 208 (83.2%), nausea and vomiting 161 (66.4%), low energy 157 (62.8%), tiredness and fatigue 146 (58.4%), fatigue or tiredness that limits daily activities 137 (54.8%), upset or worried about as result of hair loss 132 (52.8%), feeling unattractive 132 (52.8%) and sadness or tearful as result of hair loss 132 (52.8%). The most tolerable experiences were trouble in waiting for treatment 226 (90.4%), trouble waiting for room 221 (88.2%), inconvenience to come or to stay in hospital 195 (78%), numbness of fingers 167 (66.8%), sleep disturbance 132 (52.8%), stomach disturbance 210 (84%), loss of smell sensation 211 (84.4%), frustration and irritability 168 (67.2%), increased gas 206 (82.4%) feeling drowsy at day time 180 (72%), mouth ulcer 236 (94.2%), burning sensation of eye 181(72.4%) and constipation 178 (71.2%).

Table 4: Distribution of experience of women with breast cancer receiving chemotherapy in selected public hospitals Addis Ababa, Ethiopia, 2021

Experience	Mean	Frequency	Percentage
Worst experience	>12.84	133	53.2
Tolerable experience	≤12.84	117	46.8

5.4 Factors associated with knowledge of women with breast cancer who are receiving chemotherapy in selected public hospitals Addis Ababa, Ethiopia, 2021

Bivariate logistic regression was used to assess the association between each independent variable and dependent variable. Hence the level of the respondent's knowledge with age, educational background, number of family, monthly income, marriage, information about chemotherapy and current address were associated.

The multivariate regression analysis revealed $P < 0.05$ age and current address were found to have an association with knowledge of chemotherapy. Age <45 years were 0.5 times **{AOR=0.5: 95 CI (0.284, 0.957)}** less likely to have knowledge than age >45 years. Patients who lived in Addis Ababa were 2.3 times **{AOR=2.3 CI (1.102, 5.070)}** more likely to have knowledge than patients outside from Addis Ababa. (Table 4)

Table 5: Factors associated with knowledge of women with breast cancer receiving chemotherapy in selected public hospitals Addis Ababa, Ethiopia, 2021 (n=250)

Variables	Knowledge		OR 95% CI)		
	Below mean	Above mean	COR 95% CI	P value	AOR 95% CI
Age					
<45	76(46.9%)	86(53.1%)	2.302(1.340, 3.955)	.036	.521(.284,.957)**
>45	59(67%)	29(33%)	1		1
Monthly income					
<1000	43(67.2%)	21(32.8%)	.478(.263, .867)	.396	1.347(.)] =677, 2.677)
>1000	92(49.5)	94(50.5%)	1		1
Number of family					
<5	99(49.7%)	100(50.3%)	2.424(1.249, 4.706)	.094	.526(.248, 1.115)
>5	36(70.6%)	15(29.4%)			1
Level of education					
Unable to read and write	56(71.8%)	22(28.2%)	.265(.131, .539)	.071	2.155(.935, 4.966)
1-8	26(59.1%)	18(40.9%)	.468(.213, 1.027)	.624	1.254(.508, 3.095)
9-12	28(42.4%)	38(57.6%)	.917(.453, 1.854)	.691	.638(.309, 1.545)
Diploma and above	25(40.3%)	37(59.7%)	1		1

Information about					
Chemotherapy					
From different medias	24(38.1%)	39(41.9%)	2.504(1.372,4.572)	.289	.680(.334,1.386)
Family and friends	17(53.1%)	15(46.9)	1.360(.632,2.923)	.556	1.299(.544,3.104)
I don't know	94(60.6%)	61(39.4%)	1		1
Marriage					
Married	80(50.6%)	78(49.4%)	.690(.410,1.161)	.179	1.499(.831,2.706)
Currently single	55(59.8%)	37(40.2%)	1		1
Time it takes to get to the hospital					
< One hour	30(46.9%)	34(53.1%)	1.670(.780,3.578)	.306	1.724(.608,4.888)
One-two hours	39(45.9%)	46(54.1%)	1.738(.844,3.578)	.312	1.659(.622,4.428)
Three-six hours	38(70.4%)	16(29.6%)	.620(.272,1.416)	.070	2.371(.933,6.028)
>Eight hour	28(59.6%)	19(40.4%)	1		1
Are you coming from					
Addis Ababa					
Yes	70(65.4%)	37(34.6%)	.440(.263,.739)	.027	2.364(1.102, 5.070)**
No	65(45.5%)	78(54.5%)	1		1

5.5. Factors associated with the experience of women with breast cancer who are receiving chemotherapy in selected public hospitals Addis Ababa, Ethiopia, 2021

Bivariate logistic regression was used to assess the association between each independent variable and dependent variable experience and marriage, level of education, monthly income, the time it takes to get to the hospital and chemotherapy cycle were associated.

The multivariate regression analysis revealed that respondent's took chemotherapy fourth to the sixth cycle were 0.2 times (**AOR=0.2: 95 CI (.049,.909)**) less likely to have tolerable experience than patients took chemotherapy two to third cycles, seventh to ninth cycles and greater than 10 cycles.

The distance time it takes to get to the hospital when it is three to six hours 3.5 times(**AOR=3.5: 95 CI (1.481, 8.430)**) more likely to have tolerable experience of chemotherapy compared to the time it takes less than an hour, one to two hours and greater than eight hours. .

Patients who are currently single were 0.5 times (**AOR=0.5: 95 CI (.310,.970)**) less likely to have tolerable experience than patients who are married. (Table 5)

Table 6: Factors associated with experience women with breast cancer receiving chemotherapy in selected public hospitals Addis Ababa, Ethiopia, 2021

Variables	Experience		OR 95% CI		
	Below mean	Above mean	COR 95% CI	P-value	AOR 95% CI
Level of education					
Unable to read and write	42(53.8%)	36(46.2%)	1.041(.533,2.033)	.385	.549(.310,.970)
1-8	17(38.6%)	27(61.4%)	1.929(.878,4.234)	.322	.663(.344,1.279)
9-12	24(36.4%)	42(63.6%)	2.125,1.047,4.315)	.166	1.397(.657,2.969)
Diploma and above	34(54.8%)	28(45.2%)	1		1
Monthly income					
<1000	25(39.1%)	39(60.9%)	1.527(.856,2.723)	.221	.663(.344,1.279)
>1000	92(49.5%)	94(50.5%)	1		1

Time it takes to get to the hospital					
< One hour	31(48.4%)	33(51.6%)	.499(.228,1.094)	.118	1.958(.843,4.547)
One-two hours	37(43.5%)	48(56.5%)	.608(.288,1.285)	.181	1.733(.774,3.880)
Three-six hours	34(63%)	20(37%)	.276(.121,.629)*	.004	3.533(1.481,8.430)
>Eight hours	15(31.9%)	32(68.1%)	1		1
Chemotherapy cycle					
2nd-3rd cycle	47(54%)	40(46%)	2.270(.564,9.132)	.136	.327(.075,1.425)
4th-6th cycle	37(40.7%)	54(59.3%)	3.892(.968,15.645)	.037	.211(.049,.909)**
7th-9th cycle	25(41%)	36(59%)	3.840(.927,15.912)	.056	.232(.052,1.041)
>10 cycles	8(72.7%)	3(27.3%)	1		1
Marriage					
Currently single	34(37%)	58(63%)	1.888(1.116,3.195)	.039	.549(.310,.970)**
Married	83(52.5%)	75(67.5%)	1		1

*P value <0.2

**P value <0.05

AOR adjusted odd ratio

COR crude odd ratio

6. DISCUSSION

This study showed that patient's knowledge of chemotherapy and patient's experience of chemotherapy and factors associated with knowledge and experience in TASH and SPMMC Addis Ababa Ethiopia. The study results showed that 46% of participants were knowledgeable. The same findings were reported in study conducted in Saudi Arabia 45.6% participants were knowledgeable (28). The similarity may be due to same tradition and same socio demographic status.

Regarding on side effects of chemotherapy in this study the most knowledgeable side effects were hair loss, nausea and decreased appetite respectively. Same finding reported in Saudi Arabia hair loss was the most knowledgeable side effect(28). The study findings in Lithuania were inconsistent, hair loss mentioned next to fatigue(46). The difference may be due to participants considered hair loss more tolerable than fatigue. Early menopause and damaged mucosa were the lowest knowledgeable side effects in this study. Same findings also reported in Sweden damaged mucosa were among the lowest knowledgeable side effects(37). The similarity might be due to lack of knowledge on chemotherapy side effects.

Related to associate factors in the current study, knowledge was significantly associated with age. Age less than 45 years old had lower chemotherapy knowledge when compared to age greater than 45 years old and also patients who were living in Addis Ababa were significantly associated with the level of knowledge they had higher knowledge when compared to those who came from outside of Addis Ababa. The finding was inconsistent with the findings in Iraq which occupation and level of education were significantly associated with knowledge(47). In a study findings in the USA Socio demographics such as age, level of education, occupation and the number of chemotherapy cycles was not associated with chemotherapy knowledge (26). The difference could be due to different geographical area of the studies and socio demographic difference. Participants who lived in Addis Ababa had higher knowledge in this study this may be due to urbanization of the city and participants may have a better exposure to different information regarding on chemotherapy.

Regarding on experience of chemotherapy this study showed that 53.2% of participants had worst experience. The same findings were reported in Japan from the study participants more than half of the patients had worst experience(41). In this study hair loss was reported as the worst side effect followed by nausea and vomiting, low energy and fatigue and tiredness. The same result reported with regarding to hair loss it was considered as the worst symptom they were experiencing(48). Similar to a study done in Malaysia(35) nausea and vomiting were experienced by more than two third of the participants. In this study mouth sore were among the most tolerable side effects. Same findings were reported in Sweden mouth sore was among the tolerable side effect (37).

This study also revealed that on multivariate regression, number of chemotherapy cycle was significantly associated to experience. Patients who took chemotherapy three to six cycles had less tolerable experience when compared to other cycles. Same findings were reported in Canada(49). Marriage was significantly associated with experience, participants who are currently single had less tolerable experience when compared to married. The time it takes to get to the hospital was significantly associated with experience; time it takes to get to the hospital three to six hours has tolerable experience when compared to others. The findings were inconsistent with the study in Tanzania where pain and financial problems are associated (43). In Uganda patients experience associated with information they received prior to start chemotherapy(15). This may be due to difference in research methodology and difference in socio demographic characteristics of study participants.

7. STRENGTH

- Gives information about patient's level of knowledge about chemotherapy and patients experience on chemotherapy.
- Found baseline information for the future health plan.
- Can be used as resource for next researches.

8. LIMITATION

- Presence of very limited similar studies in the country for comparison purpose.

9. CONCLUSION

The study revealed that more than half of the participants were not knowledgeable and more than half of the participants had worst experience. Age of participants less than 45 and participants who lived in Addis Ababa was found to be significantly associated with knowledge of chemotherapy and the distance it take to get to the hospital, marital status of respondent's and chemotherapy cycle was found to be significantly associated with patient's experience. Those who are age less than 45 years had lower knowledge when compared to age greater than 45 years and those who are living in Addis Ababa more likely to have higher knowledge and participant's that took three to six hours to get to the hospital were more likely to have tolerable experience and those who took chemotherapy fourth to sixth cycle and respondent's who are currently single were less likely to have tolerable experience. This suggests that health care providers need to design knowledge increasing interventions and minimizing patient's worst experiences.

RECOMMENDATION

Based on the findings of the result the following important recommendations are forwarded for the respective body on increasing knowledge of chemotherapy in breast cancer, treatment plan implementers, policy makers and researchers that are engaged in this area:

Government level

The government especially federal ministry of health should provide information on breast cancer treatments, side effects of the treatments and how to minimize the possible side effects by using different Medias.

Health care providers

Health care providers should give information about chemotherapy to their patients in each cycle and should teach how to manage the possible side effects.

Researchers

Further studies regarding on breast cancer should be carried

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ANNEX

ANNEX I: Information sheet (English version)

Hello dear? Dear respondent my name is _____ I am here to collect data for a study entitled, “knowledge and experience of women with breast cancer receiving chemotherapy in selected public hospital’s Addis Ababa, Ethiopia 2021.” The study is being conducted by Kalkidan Ayalew who is MSC Oncology nursing student at Addis Ababa University, College of health sciences, school of nursing and midwifery. For this study you are selected as a participant and before getting your consent or permission of your participation, you need to know all necessary information related to the study.

Thus, this information will be detailed as the objective of this study is to assess knowledge and experience of women with breast cancer receiving chemotherapy. You are being asked to take part in this study and to respond sincerely. You are selected to be involved by chance. This questionnaire focuses on assessing your symptoms and their associations. Your cooperation and willingness is greatly helpful in identifying problems in the mentioned area.

This questionnaire may take 30 to 40 minutes to complete.

There is no major risk for participating in this study. Your name will not be written in this form and for all the information you give us will be kept confidentially. Your participation is voluntary and if you feel discomfort with any of the questions it is your right to drop or stop filling the questionnaire. If you have questions regarding on the study or if you wish to know the result after its completion, it’s our pleasure to give you our phone number. Please contact the principal investigator.

Sister, Kalkidan Ayalew

Tell no -0962234788

Email: kalkidanayalew2@gmail.com

Are you willing to participate in this study?

If yes please proceed to consent form. Thank you

ANNEX II: Consent form (English version)

In signing this document, I am giving my consent to participate in the study entitled, “knowledge and experience of women with breast cancer receiving chemotherapy in selected public hospital’s Addis Ababa, Ethiopia 2021.” I have been informed that the objective of this study is to assess knowledge and experience of women with breast cancer receiving chemotherapy in selected public hospital’s Addis Ababa, Ethiopia 2021.

I have understood that participation in this study is completely voluntarily. I have been told that my answers to the questions will not be given to anyone else and no reports of this study ever identify me in any by any means. I understood that participation in this study doesn’t involve risks except the time spent for completing the questionnaire.

I understand that Sister Kalkidan is the contact person and if i have questions about the study or about my rights as a study participant the following is the contact address.

Address of principal investigator: Kalkidan Ayalew

Mobile no: 0962234788

Email: kalkidanayalew2@gamil.com

Participants signature: _____ date: _____ **Thank**

you for your willingness to participate!!

ANNEX III: Questionnaire (English version)

A structured questionnaire, to assess knowledge and experience of women with breast cancer receiving chemotherapy in selected health institutions Addis Ababa Ethiopia.

Type 1. Socio demographic data

No	Question	Response
101	Age	-----
102	Gender	1. Female 2. Male
103	Ethnic group	1) Amhara 2) Tigre 3) Oromo 4) Gurage 5) other
104	Educational level	1.Unable to read and write 2.Primary(1-8) 3.Secondary(9-12) 4.Diploma and above
105	Religion	1.Orthodox 2.Muslim 3.Protestant 4. Catholic

		5.Other (specify
106	Where are you coming from	1.Amhara region 2. Tigray region 3.Oromya region 4. Southern region 5. Other specify
107	How long does it take you to get to the hospital	1.Less than an hour 2. One - two hours 3. Three-six hours 4. Eight hour and more
108	If you are from outside of Addis Ababa do you have a place to stay while taking Chemotherapy	1. yes 2. no
109	If yes where	1.relatives house 2. rental 3. shelters
110	Occupation	1. Unemployed

		2. Farmer 3. Merchant 4. Private employee 5. Governmental employee 6. Others (Please specify _____)
111	Marital status	1. Single 2. Married 3. Divorced 4. Widowed
112	Average monthly income (in Birr)	-----
113	How many are you in your family	-----
114	Partners' education level	1. Unable to read and write 2. Primary(1-8) 3. Secondary(9-12) 4. Diploma and above

115	Have you heard about chemotherapy from any of the following	<ol style="list-style-type: none"> 1. Television 2. Radio 3. News paper 4. Friends and family
116	Is there any family history of cancer	<ol style="list-style-type: none"> 1. yes 2. no
117	How many cycle of chemotherapy did you take?	<ol style="list-style-type: none"> 1. First – third cycle 2. Forth-sixth cycle 3. Seventh- ninth cycle 4. Tenth and abo

Part2. This questionnaire assesses your knowledge about your treatment. Please do not rely on help from sources or other people to complete it. It is important that the questionnaire provides a true picture of what you know about your treatment.

201. What is the purpose of your treatment?

The treatment aims to cure the cancer and is the only treatment given (there is no combination with other forms of treatment such as an operation or radiation therapy).

The treatment aims to cure and is given as a first (neo-adjuvant) therapy, which will be followed by an operation or radiation therapy.

The treatment aims to cure and is given as treatment after another one (adjuvant treatment), for example an operation or radiation therapy. The aim of the treatment is to destroy any remaining cancer cells and to minimize the risk of the cancer spreading

The treatment aims to stabilize the disease and to minimize any complaints. The treatment is meant to lengthen life and to improve quality of life.

I don't know.

202. The planned duration of your treatment is:

A fixed number of cycles / courses

A number of cycles / courses, followed by an evaluation, and possibly additional cycles / courses

An unspecified time

I don't know

203. What is the purpose of blood tests before your treatment is administered or your subscription is renewed?

More than one answer is possible.

Checking whether the body (e.g. the bone marrow or the blood cells, the kidneys, the

liver) can take a new cycle of chemotherapy or further treatment

- Checking for traces of the therapy In the blood
- Assessing the effect of the treatment (e.g. tumor markers)
- None of the above, but the following: ...
- None of the above: no blood samples are taken
- I don't know

204. Which of the following measures are indicated during your treatment?

More than one answer is possible.

- Providing extra overall hygiene
- Drinking enough fluids
- Taking extra care of mouth hygiene
- Balancing activities and rest
- Avoiding crowds
- All these measures are indicated
- Not one of these measures is indicated
- I don't know

205. Which side effects of chemotherapy can we call life threatening?

More than one could be an answer

- Fever with or without chills
- Persistent diarrhea
- Persistent vomiting

I don't know

206. Which indicates dangerous signs during taking chemotherapy?

More than one could be an answer

Sudden breathlessness during chemotherapy

The skin around the catheter looks red and swollen

Pain on the sight of the catheter

I don't know

207. Which of the following side effects can occur during your treatment?

Nausea and vomiting

Decreased appetite

Damage to the mucosa of the mouth

Tiredness

Hair loss

Skin changes (e.g. dry skin, redness, itch)

Constipation

Diarrhea

Fever

Early menopause

Part 3: Questionnaires to asses experience about chemotherapy

301	1. Do you feel worried or upset as a result of thinning or loss of your hair?	<ol style="list-style-type: none"> 1. All of the time 2. Most of the time 3. A good bit of the time 4. Some of the time 5. A little of the time 6. Hardly any of the time 7. None of the time
302	2. Do you feel optimistic or positive regarding the future?	<ol style="list-style-type: none"> 1. None of the time 2. A little of the time 3. Some of the time 4. A good bit of the time 5. Most of the time 6. Almost all of the time 7. All of the time
303	3. Do you feel that your fingers are numb or falling asleep?	<ol style="list-style-type: none"> 1. All of the time 2. Most of the time

		<p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
304	4. Do you have trouble or inconvenience as a result of having to come to or stay at the clinic or hospital for medical care?	<p>1. A great deal of trouble or inconvenience</p> <p>2. A lot of trouble or inconvenience</p> <p>3. A fair bit of trouble or inconvenience</p> <p>4. Some trouble or inconvenience</p> <p>5. A little trouble or inconvenience</p> <p>6. Hardly any trouble or inconvenience</p> <p>7. No trouble or inconvenience</p>
305	Do you feel low in energy?	1. All of the time

		<ul style="list-style-type: none"> 2. Most of the time 3. A good bit of the time 4. Some of the time 5. A little of the time 6. Hardly any of the time 7. None of the time
306	6. In general, do you feel tearful or down in the dumps?	<ul style="list-style-type: none"> 1. All of the time 2. Most of the time 3. A good bit of the time 4. Some of the time 5. A little of the time 6. Hardly any of the time 7. None of the time
307	Do you have trouble as a result of feeling nauseated?	<ul style="list-style-type: none"> 1. A great deal of trouble 2. A lot of trouble 3. A fair bit of trouble 4. Some trouble 5. A little trouble

		<p>6. Hardly any trouble</p> <p>7. No trouble</p>
308	Do you feel upset as a result of feeling unattractive?):	<p>1. All of the time</p> <p>2. Most of the time</p> <p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
309	Do you feel the future looks hopeful and promising?	<p>1. None of the time</p> <p>2. A little of the time</p> <p>3. Some of the time</p> <p>4. A good bit of the time</p> <p>5. Most of the time</p> <p>6. Almost all of the time</p> <p>7. All of the time</p>
310	Do you have trouble in getting a good night's sleep?	<p>1. All of the time</p> <p>2. Most of the time</p>

		<p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
311	Do you have trouble or inconvenience as a result of waiting to see a physician while visiting the clinic or hospital?	<p>1. A great deal of trouble or inconvenience</p> <p>2. A lot of trouble or inconvenience</p> <p>3. A fair bit of trouble or inconvenience</p> <p>4. Some trouble or inconvenience</p> <p>5. A little trouble or inconvenience</p> <p>6. Hardly any trouble or inconvenience</p> <p>7. No trouble or inconvenience</p>
312	Do you feel tired or fatigued while hurrying?	<p>1. All of the time</p>

		<p>2. Most of the time</p> <p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
313	Do you feel worried or tense?	<p>1. All of the time</p> <p>2. Most of the time</p> <p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
314	Do you have an upset on stomach?	<p>1. All of the time</p> <p>2. Most of the time</p> <p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p>

		<p>6. Hardly any of the time</p> <p>7. None of the time</p>
315	Do you feel uncomfortable or embarrassed as a result of thinning or loss of your hair?	<p>1. All of the time</p> <p>2. Most of the time</p> <p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
316	Have you received help from people outside your family?	<p>1. None of the time</p> <p>2. A little of the time</p> <p>3. Some of the time</p> <p>4. A good bit of the time</p> <p>5. Most of the time</p> <p>6. Almost all of the time</p> <p>7. All of the time</p>
317	Do you have the sensation that you smelled of chemicals?	<p>1. All of the time</p> <p>2. Most of the time</p>

		<p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
318	Do you have trouble or inconvenience as a result of sitting in the waiting room at the clinic or hospital?	<p>1. A great deal of trouble or inconvenience</p> <p>2. A lot of trouble or inconvenience</p> <p>3. A fair bit of trouble or inconvenience</p> <p>4. Some trouble or inconvenience</p> <p>5. A little trouble or inconvenience</p> <p>6. Hardly any trouble or inconvenience</p> <p>7. No trouble or inconvenience</p>
319	Do you have problems with fatigue or tiredness which interfered with your housework?	<p>1. All of the time</p>

		<ul style="list-style-type: none"> 2. Most of the time 3. A good bit of the time 4. Some of the time 5. A little of the time 6. Hardly any of the time 7. None of the time
320	20. In general, do you feel frustrated or irritable?	<ul style="list-style-type: none"> 1. All of the time 2. Most of the time 3. A good bit of the time 4. Some of the time 5. A little of the time 6. Hardly any of the time 7. None of the time
321	Do you have a problem in increased production of gas?	<ul style="list-style-type: none"> 1. All of the time 2. Most of the time 3. A good bit of the time 4. Some of the time

		<p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
322	Do you feel sadness or tearful as a result of thinning or loss of your hair?	<p>1. All of the time</p> <p>2. Most of the time</p> <p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
323	Do you feel good about yourself?	<p>1. None of the time</p> <p>2. A little of the time</p> <p>3. Some of the time</p> <p>4. A good bit of the time</p> <p>5. Most of the time</p> <p>6. Almost all of the time</p> <p>7. All of the time</p>
324	Do you feel drowsy during the day?	<p>1. All of the time</p>

		<p>2. Most of the time</p> <p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
325	Do you have trouble or inconvenience as a result of waiting for treatment at the clinic or hospital	<p>1. A great deal of trouble or inconvenience</p> <p>2. A lot of trouble or inconvenience</p> <p>3. A fair bit of trouble or inconvenience</p> <p>4. Some trouble or inconvenience</p> <p>5. A little trouble or inconvenience</p> <p>6. Hardly any trouble or inconvenience</p> <p>7. No trouble or inconvenience</p>

326	Do you feel fatigue or tiredness which limits your usual social activities?	<ol style="list-style-type: none"> 1. All of the time 2. Most of the time 3. A good bit of the time 4. Some of the time 5. A little of the time 6. Hardly any of the time 7. None of the time
327	Do your families worried about you, and about your health?	<ol style="list-style-type: none"> 1. All of the time 2. Most of the time 3. A good bit of the time 4. Some of the time 5. A little of the time 6. Hardly any of the time 7. None of the time
328	Do you have trouble in constipation?	<ol style="list-style-type: none"> 1. All of the time 2. Most of the time 3. A good bit of the time 4. Some of the time

		<p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>
329	Do you have pain, soreness, or sores in your mouth?	<p>1. A great deal of trouble</p> <p>2. A lot of trouble</p> <p>3. A fair bit of trouble</p> <p>4. Some trouble</p> <p>5. A little trouble</p> <p>6. Hardly any trouble</p> <p>7. No trouble</p>
330	Do you have burning, watery, or sore eyes?	<p>1. All of the time</p> <p>2. Most of the time</p> <p>3. A good bit of the time</p> <p>4. Some of the time</p> <p>5. A little of the time</p> <p>6. Hardly any of the time</p> <p>7. None of the time</p>

ANNEX 1 የመረጃ ወረቀት (የአማርኛ ቅጅ)

ሰላም ስሜ -----እባላለሁ በ AAU ኮሌጅ ነርስ እናአ ዋላጅነት ማስተርስ ተማሪ በሆነችው ቃልኪዳን አያሌው ስም መረጃዎችን እሰበስባለሁ። እና ለዚህ ጥናት እርስዎ እንደ ተሳታፊ ሆነው ተመርጠዋል እና ምርጫው በአጋጣሚ ተመርጠዋል እናም እርስዎ ከመስማማትዎ በፊት ስለጥናቱ አስፈላጊ መረጃዎችን ሁሉ ለእርስዎ መስጠት አፈልጋለሁ።

የዚህ ጥናት ዋና ዓላማ በአዲስአበባ ኢትዮጵያ ውስጥ በተመረጡ የጤናተቋማት ውስጥ ጡት ካንሰር ህመምተኞች ላይ በኬሞቴራፒ ላይ የሚገኙትን የጡት ካንሰር በሽተኞች የእውቀት እና ተሞክሮ ማወቅ ነው። መጠይቆቹ በኬሞቴራፒ እውቀት፣ እና ተሞክሮ ያተኮረ ነው። ከላይ በተጠቀሰው አካባቢ ያሉትን ችግሮች በማየት ረገድ የእርስዎ ትብብር እና ፈቃደኝነት በጣም ይረዳል። ጊዜዎን 30 እስከ 40 ደቂቃዎች ከመውሰድ በስተቀር በዚህ ጥናት ውስጥ ለመሳተፍ ምንም ጉዳት የለውም። ሚስጥራዊነቱም የተጠበቀ ነው እንዲሁም የእርስዎ ስም በጥናቱ ላይ አይጠቀስም። ማንኛውም ምችት የማይሰማዎት ከሆነ እና በጥናቱ ለመሳተፍ ፈቃደኛ ካልሆኑ በሚፈልጉት ጊዜ ከጥናቱ የመውጣት ሙሉ መብት አለዎት።

ስለ ጥናቱ በተመለከተ ማንኛውም ጥያቄ ካለዎት ከዚህ በታች በተጠቀሰው አድራሻ አጥኝዎን ማነጋገር ይችላሉ።

ስም; ቃልኪዳን አያሌው

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ኢሜል; kalkidanayalew2@gmail.com

ANNEXII ስምምነት ቅጽ (የአማርኛ ቅጽ)

ሰላም;

በአዲስአበባ ዩኒቨርሲቲ በጤና ሳይንስ ኮሌጅ እና በአዋጅ ህክምና ኮሌጅ ውስጥ በማስተርስ ተማሪ በጡት ካንሰር ህመምተኞች ላይ ስለ ኬሞቴራፒ ዕውቀት፣ እና ተሞክሮ ስለሚደረግ ጥናት ተነግሮኛል። በዚህ ጥናት ውስጥ መሳተፍ በፈቃደኝነት እና ማንኛውንም መጠይቅ ለመመለስ ግዴታ እንደሌለበት ተረድቻለሁ። ጥያቄዎቹን ለማጠናቀቅ ከ 30 እስከ 40 ደቂቃዎችን ከመውሰድ በስተቀር በዚህጥናት ውስጥ መሳተፍ አደጋ እንደሌለው ተረድቻለሁ ጥናቱን በተመለከተ ማንኛውም ጥያቄ ካለኝ አጥኝዎን በአድራሻዎ የማግኘት መብት አለኝ።

በጥናቱ ለመሳተፍ ፍቃደደኛ ኖት ?

- 1) አይደለሁም(አመስናለሁ)
- 2. አዎ (እንቀጥላለን)

ለሚኖሩት ጥያቄ የሚጠቀሙት አድራሻ እና የጥናት አድራጊዎ መረጃ

ስልክ ቁጥር: 0962234788 ኢ-ሜይል: kalkidanayalew2@gamil.com የጠያቂው ስምና ፊርማ -----

---የ ተጠየቀበትቀን በ ኢትዮጵያ አቆጣጠር--

-----/-----/----- የጥናቱ ውጤት

- 1. ተጠናቋል
- 2. መጠየቅ አልፏል
- 3. ተጠያቂው አልተገኘም
- 4. በከፊል የተጠናቀቀ

በ ሱፐርቫይዘር ተረጋግጧል ስም-----ፊርማ-----ቀን

የተሳታፊ ፊርማ ----- ቀን ----- አመስናለሁ

ANNEX III: የአማርኛ መጠይቅ

በተመረጡ የጤና ተቋማት ውስጥ ለጡት ካንሰር የኬሞቴራፒ ሕክምናን ለሚወስዱ ታካሚዎች ዕውቀት እና ተሞክሮ ለመገምገም የተዋቀረ መጠይቅ አዲስአበባ ኢትዮጵያ

ዓይነት 1. አድስ አበባዩኒቨርሲቲ፣ የጤና ሳይንስ ኮሌጅ፣ የነርቭንግ እና ሚዲካል ስኩል ትምህርት ቤት፣ ነርቭንግ ትምህርት ክፍል፣ መሰረታዊ፣ የተሳታፊዎች መረጃ

ተ.ቁ	ጥያቄ	መልስ
101	እድሜ	_____
	ፆታ	<ol style="list-style-type: none"> 1. ሴት 2. ወንድ
102	ሐይማኖት	<ol style="list-style-type: none"> 1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ ካለ:-
103	የትምህርት ደረጃ	<ol style="list-style-type: none"> 1. ማንበብ እና መጻፍ አልቻልንም 2. 1-8 3. 9-12 4. ድፕሎማ እና ከዛባይ
104	ብሄር	<ol style="list-style-type: none"> 1. አማራ 2. ትግራይ 3. ኦሮሞ 4. ደ/ብ/ብ/ሀ/ክ*

		5. ሌላ ካለ:-
105	የሰራ ሁኔታ?	1. ስራ የሌለው 2. ነጋዴ 3. ገበሬ 4. የግልሰራ 5. የመንግስት ሰራተኛ 6. ሌላ
106	የትዳር ሁኔታ	1. ያላገባ/ች 2. ያገባ/ች 3. የሞተበት/የሞተችበት 4. የተፋታ/የተፋታች
107	የትዳር አጋር የትምህርት ደረጃ?	1. ማንበብ እና መጻፍ አልችልም 2. 1-8 3. 9-12 4. ድፕሎማ እና ከዛ በላይ
108	ቤት ዉስጥ ስንት ሰዓ ይኖራል?	_____
109	የወር ገቢ	_____
110	ከየት ነው የምትመጣው?	1. አማራ ክልል 2. ትግራይ ክልል 3. አሮምያ ክልል 4. ደቡብ ክልል

		5. ሌላ ይግለጹ
111	ልጆች አሉት?	1. አለኝ 2. የለኝም
112	ካሎት ስንት?	1. አንድ 2. ሁለት 3. ሦስት 4. አራት 5. አምስትና ከዛ በላይ
113	ወደ ሆስፒታል ለመድረስ ምን ያህል ጊዜ ይፈጅብዎታል?	1. ከአንድ ሰዓት ያነሰ 2. አንድ - ሁለት ሰዓት 3. ሶስት-ስድስት ሰዓታት 4. ስምንት ሰዓት እና ከዚያ በላይ
114	ከአዲስ አበባ ውጭ ከሆኑ ኬሞቴራፒ በሚወስዱበት ጊዜ የሚያድሩበት ቦታ ይኖርዎታል?	1. አዎ 2. የለም
115	አዎን ከሆነ የት?	1. ዘመድ ቤት 2. ክራይ ቤት 3. በጊዜያዊ ማቆያ
116	በቤተሰብዎ ካንሰር የተያዘ አለወይ?	1. አዎ 2. አይደለም

117	ምን ያህል የኬሞቴራፒ ዑደት ወስደዋል?	<ol style="list-style-type: none"> 1. ሁለተኛ - ሦስተኛው ዑደት 2. አራተኛ - ስድስተኛ ዑደት 3. ሰባተኛ - ዘጠነኛው ዑደት 4. አስረኛ እና ከዚያ በላይ
118	ከሚከተሉት ውስጥ ስለኬሞቴራፒ ሰምተው ያውቃሉ?	<ol style="list-style-type: none"> 1. ቴሌቪዥን 2. ሬዲዮ 3. የዜናወረቀት 4. ጓደኞች እና ቤተሰቦች

መመሪያ: 2 ይህ መጠይቅ ስለ እርስዎ የሚያገኙት ህክምና ያሎትን እውቀት ይዳስሳል። በመሆኑም ይህን መጠየቅ ሁለተኛ ሰው እንዲመልስሉ ባለመስጠት ስለህክምናው ያሎትን እውነተኛ የግንዛቤ ገፅታ ለመረዳት ይረዳል።

ጥያቄ 201. የህክምናዎ አላማ ምንድን ነው?

1. የህክምናው አላማ ካንሰርን ለመፈወስ እና ህክምናው ይህ ብቻ ስለሆነው (ከሌሎች ጋር አብሮ የሚሰጥ የቀዶ ህክምናም ሆነ የጨርሮ ህክምና ስለሌለ) .
2. የህክምናው አላማ ለመፈወስ እና መጀመሪያ የሚሰጥ (ኒዮ-አድጂቭንት) ህክምና ሲሆን ቀጥሎም ቀዶ ህክምና ወይም ጨረር ህክምና ይሰጣል።
3. የህክምና አላማዎች ካንሰርን ለመፈወስና ከሌላው ቀጥሎ የሚሰጥ ህክምና (አድጂቭንት) ለምሳሌ ቀዶ ህክምና ወይም ጨረር ህክምና። አላማውም ቀሪውን የካንሰር ህዋሳትን ለማውደምና የስርጭቱ ንጉዳት ለመቀነስ ነው።
4. የህክምናው አላማዎች በሽታውን ጋብ ለማድረግና ጫናውንም ለመቀነስ ነው። ማለትም ህክምናው ነፍስን/ ህይወትን ለማወቁትና የህይወት ጥራትን ለማሻሻል ነው።
5. የማውቀው የለም/አላውቅም።

ጥያቄ 202 ህክምናዎት የታቀደበት ጊዜ፡

1. የተወሰነ ኡደቶች/ ክፍሎች
2. የተወሰነ ኡደቶች/ ክፍሎች ፣ከምርመራ በኋላ ተጨማሪ ኡደቶች/ ክፍሎች ሊኖሩ ይችላሉ
3. ላልተወሰነ ጊዜ
4. የማውቀው የለም/አላውቅም።

ጥያቄ 203. ህክምናው ወይም መደብረት ማዘዣው ከመስጠቱ በፊት የደም ምርመራው ያስፈለገው ለምንድነው?

ከአንድ በላይ መልስ መስጠት ይቻላል

1. ሰውነትን መመርመር (ምሳሌ መቅኒ ወይም የደምህዋስን፣ ኩላሊት ጉበት..) ቀጣይ ኬም ወይም ተጨማሪ ህክምና መውሰድ እንዲቻል
2. በደም ውስጥ መድኃኒቱ መኖሩን ለመመርመር
3. የህክምናውን ውጤት ለማሰስ
4. ከላይ ተጠቅሶ የሌለ፣ ነገር ግን እንደሚቀጥለው
5. የደም ናሙና አልተወሰደም
6. የማውቀው የለም/አላውቅም።

ጥያቄ 204. በህክምና ወቅት የትኞቹ እርምጃዎች ቢወሰዱ አስፈላጊ ናቸው?

ከአንድ በላይ መልስ ይቻላል

1. ተጨማሪ የራስ ንጽግናን መጠበቅ
2. በቂ ፈሳሽ መውሰድ
3. ጠጩን የአፍ ንጽህናን መውሰድ
4. እንቅስቃሴን እረፍትን ማመጣጠን/

5. ከሰዎች ጋር ፍግፍግን ማስወገድ/መራቅ
6. እነዚህ ሁሉ እርምጃዎች አስፈላጊ ናቸው
7. እነዚህ ሁሉ እርምጃዎች አያስፈልጉም
8. የማውቀው የለም/አላውቅም::

ጥያቄ 205. ከሚከተሉት የፀረ-ካንሰር ህክምና ምልክቶች ውስጥ ለህይወት አስጊ የሆነውን አመልክት/ቺ

1. ትኩሳት ከማንቀጥ ጋር ወይም ያለማንቀጥቀጥ
2. አጣዳፊ ተቅማጥ
3. አጣዳፊ ትውከት
4. አላውቅም

ጥያቄ 206. ከሚከተሉት ውስጥ በህክምናው ጊዜ የሚከሰቱት የጎነዮሽ ጉዳዮች ውስጥ ነው

ከአንድ በላይ መልስ መስጠት ይቻላል

1. የፀረ-ካንሰር ህክምናውን በመውሰድ ላይ እያሉ የሚያጋጥም ድንገተኛ የአየር ማጠር
2. መዳሀኒት እየተሰጠ ባለወቅት በመዳኒት መስጫ መሳሪያው ዙሪያ የሚያጋጥም የቆዳ መቅላት እና ማበጥ
3. መዳሀኒት በመስጫው መሳሪያ ዙሪያ የሚሠማ ህመም
4. አላውቅም

ጥያቄ 207 ከሚከተሉት ውስጥ መድሀኒቱ በተጎዳኝ የሚያጣወ ችግር

1. ማቅለሽለሽ እና ማስመለስ
2. የምግብ ፍላጎት መቀነስ
3. የአፍ መቁሰል
4. ድካም መሰማት
5. የፀጉር መነሳት
6. የቆዳ መቀየር (የደረቀ ቆዳ፣ መቅላት እና ማሳከክ)
7. የሰገራ ድርቀት
8. ማስቀመጥ
9. ትኩሳት
10. ማረጥ

ዓይነት 3-ሰለኬሞኔራፒ ተሞክሮ መጠይቆች

ተ.ቁ	ጥያቄ	መልስ
301	በፀጉርዎ መርገፍ ወይም መሳሳት ምክኒያት ጭንቀት ወይም ብስጭት ይሰማዎታል?	<ol style="list-style-type: none"> 1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ 5. ትንሽ ጊዜ 6. በጣም ትንሽ ጊዜ 7. የለም
302	የወደፊቱን በተመለከተ አዎንታዊ ወይም ብሩህ ተስፋ ይሰማዎታል?	<ol style="list-style-type: none"> 1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ 5. ትንሽ ጊዜ 6. በጣም ትንሽ ጊዜ 7. የለም
303	ጣቶችዎ የመደንዘዝ ወይም የመድከም ስሜት ይሰማዎታል ?	<ol style="list-style-type: none"> 1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ

		<p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
304	ሆስፒታል ለመምጣት ወይም ለመቆየት ችግሮች ገጥመዎት ነበር?	<p>1. በጣም ብዙ ችግር ገጥሞኛል</p> <p>2. ብዙ ችግር ገጥሞኛል</p> <p>3. መካከለኛ ችግር ገጥሞኛል</p> <p>4. አንዳንድ ችግሮች ገጥሞኛል</p> <p>5. ትንሽ ችግር ገጥሞኛል</p> <p>6. በጣም ትንሽ ችግር ገጥሞኛል</p> <p>7. ምንም ችግር አልገጠመኝም</p>
305	አቅም ማጣት አለዎት?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
306	ባጠቃላይ ማልቀስ ወይም ስሜት መውረድ ይስማወታል ?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p>

		<p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
307	የማቅለሽለሽ ስሜት ይሰማዎታል ?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
308	ዉበቴ ቀንሷል ብለዉ አሥበዉ ይበሳጭጭሉ?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
309	በመጨረሻ ጊዜ ላይ ተስፋ አለለዎት?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p>

		<p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
310	ጥሩ እንቅልፍ ለመተኛት ችግር አጋጥሞታል?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
311	ሀኪም ዘንድ ለመቅረብ በሚጠብቁበት ጊዜ ችግሮች አጋጥሞታል?	<p>1. በጣም ብዙ ችግር ገጥሞኛል</p> <p>2. ብዙ ችግር ገጥሞኛል</p> <p>3. መካከለኛ ችግር ገጥሞኛል</p> <p>4. አንዳንድ ችግሮች ገጥሞኛል</p> <p>5. ትንሽ ችግር ገጥሞኛል</p> <p>6. በጣም ትንሽ ችግር ገጥሞኛል</p> <p>7. ምንም ችግር አልገጠመኝም</p>
312	በሚቸኩሉበት ጊዜ የድካም ወይም አቅም ማጣት ስሜት ይሰማዎታል?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p>

		<p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
313	የጭንቀት ወይም የውጥረት ስሜት ይሰማዎታል?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
314	የሆድ ቁርጠት አለዎት?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
315	የፅጉር መነሳት ወይም መሰላት አለዎት?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p>

		<p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
316	ከቤተሰብዎ ውጭ ከሆኑ ሰዎች እገዛ እና ድጋፍ አግኝተዋል?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
317	ኬሚካል የሚመመሥል ሽታ ይሸተዎታል?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
318	ሆስፒታል መጠበቂያ ዉስጥ በመቀመጥዎ ምክኒያት ችግር አጋጥሞዎታል?	<p>1. በጣም ብዙ ችግር ገጥሞኛል</p> <p>2. ብዙ ችግር ገጥሞኛል</p>

		<p>3. መካከለኛ ችግር ገጥሞኛል</p> <p>4. አንዳንድ ችግሮች ገጥሞኛል</p> <p>5. ትንሽ ችግር ገጥሞኛል</p> <p>6. በጣም ትንሽ ችግር ገጥሞኛል</p> <p>7. ምንም ችግር አልገጠመኝም</p>
319	የቤት ስራዎችን በሚሰሩበት ጊዜ የድካም ስሜት ይሰማዎታል?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
320	የመቁነጥነጥ ወይም የመመሰላቸት ስሜት ይሰማዎታል?	<p>1. ሁል ጊዜ</p> <p>2. አብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
321	ጋዝ ያስቸግሮዎታል?	<p>1. ሁል ጊዜ</p>

		<p>2. ኡብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
322	በፅጉር መነሳት ወይም መሳሳት ምክኒያት አዝነዋል ወይም አልቅሰዋል?	<p>1. ሁል ጊዜ</p> <p>2. ኡብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
323	ስለራስዎ ጥሩ ስሜት ይሰማዎታል?	<p>1. ሁል ጊዜ</p> <p>2. ኡብዛኛውን ጊዜ</p> <p>3. የተወሰነ ጊዜ</p> <p>4. አንዳንድ ጊዜ</p> <p>5. ትንሽ ጊዜ</p> <p>6. በጣም ትንሽ ጊዜ</p> <p>7. የለም</p>
324	ቀን ላይ የአንቅልፍ ስሜት ይሰማዎታል?	

		<ol style="list-style-type: none"> 1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ 5. ትንሽ ጊዜ 6. በጣም ትንሽ ጊዜ 7. የለም
325	ኬሞቴራፒ ለመውሰድ ሲጠብቁ ችግር ገጥሞታል ነበር?	<ol style="list-style-type: none"> 1. በጣም ብዙ ችግር ገጥሞኛል 2. ብዙ ችግር ገጥሞኛል 3. መካከለኛ ችግር ገጥሞኛል 4. አንዳንድ ችግሮች ገጥሞኛል 5. ትንሽ ችግር ገጥሞኛል 6. በጣም ትንሽ ችግር ገጥሞኛል 7. ምንም ችግር አልገጠመኝም
326	የተሉለመደውን ሥራዎትን ሂደቱን የደካም ወይም የአቅም ማጣት ይሠማዎታል?	<ol style="list-style-type: none"> 1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ 5. ትንሽ ጊዜ 6. በጣም ትንሽ ጊዜ 7. የለም

327	ቤተሰቦችዎ ስለእርስዎ እና ስለ ጤናዎ ይጨነቃሉ?	1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ 5. ትንሽ ጊዜ 6. በጣም ትንሽ ጊዜ 7. የለም
328	የሆድ ድርቀት ያስቸግሮዎታል?	1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ 5. ትንሽ ጊዜ 6. በጣም ትንሽ ጊዜ 7. የለም
329	እፍዎ ወስጥ ህመም ወይም ቁስለት አለዎት ?	1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ 5. ትንሽ ጊዜ 6. በጣም ትንሽ ጊዜ 7. የለም

330	አይንዎትን ማቃጠል፣ ህመም ወይም ዉሀ ማዘል አለዎት?	<ol style="list-style-type: none"> 1. ሁል ጊዜ 2. አብዛኛውን ጊዜ 3. የተወሰነ ጊዜ 4. አንዳንድ ጊዜ 5. ትንሽ ጊዜ 6. በጣም ትንሽ ጊዜ 7. የለም
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ANNEX IX Declaration

DECLARATION

I, the undersigned, declared that this thesis is my original work and has not been presented for a degree in this or any other university, and all source materials used for the thesis have been fully acknowledged

Name of the student: Kalkidan Ayalew (Bsc)

Signature-----

Date-----

Approval of primary advisor

Name of the primary advisor Yohannes Ayalew (MSc, Assistant professor, PHD fellow)

Signature _____

Date _____

Name of the secondary advisor Mrs. Tsion Alemu (MSc, Lecturer)

Signature _____

Date _____

Name of the examiner:

Signature _____

Date _____