ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCE

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

Prevalence and Factors Contributing To Late Diagnosis Of Breast Cancer Among Women Attending Tikur Anbessa Specialized Hospital, Oncology Unit, Addis Ababa, Ethiopia, 2017.

BY: HAREGEWOIN AYALEW (BSCN)

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE SCHOOL OF ALLIED HEALTH SCIENCES DEPARTMENT OF NURSING AND MIDWIFERY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER IN ONCOLOGY NURSING

JUNE, 2017

ADDIS ABABA, ETHIOPIA

ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCE

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

Prevalence and Factors Contributing To Late Diagnosis Of Breast Cancer Among Women Attending Tikur Anbessa Specialized Hospital, Oncology Unit, Addis Ababa, Ethiopia, 2017.

ADVISORS: MR. TEFERA MULUGETA (BSC, MSC)

SR. AKLILE HAILU (BSC, MSC)

JUNE, 2017

ADDIS ABABA ETHIOPIA

Acknowledgements

First and for most, I would like to say thank you to the almighty God for his endless help throughout my life. Next, my special thanks goes to my Advisors, Mr. Tefera Mulugeta (Bsc,Msc) and Sr. Aklil Hailu (Bsc, Msc) for devoting their precious time in providing constructive comments and advice which finally helped me to prepare this thesis. .

I would like to express my sincere gratitude to the Breast Cancer patients who were sick but dedicated their time to respond to these questions because without their participation, this study would not have been possible.

Also I would like to express my sincere gratitude to AAU College of health science and TASH oncology center for give me a chance to conduct this research.

I am also grateful to. My special gratitude and deepest appreciation go to my Family, friends, data collectors and all who involved in this work.

Table of Contents

List of tables

List of figures

List of Abbreviations

AJCC= American joint committee on cancer

BSE= breast self-examination

CBE=clinical breast examination

CI = Confidence Interval

EB= Ethiopian birr

EC= Ethiopian Calendar

HC= Health Center

HCP =Health care practitioner

HF =Health facility

LMRCs = low and middle resource countries

LRCS=LOW Resources country

OR= Odds Ratio

PI= principal investigator

SD =Standard Deviation

SSA=Sub-Saharan Africa

SPSS=Statistical Package for Social Science

TASH= Tikur Anbesa specialized hospital

UAE=united Arab imaret

WHO =World Health Organization

Abstract

Background: Breast cancer is the leading cause of cancer death in women worldwide. In Ethiopia breast cancer is becoming the first common cancer and higher maternal deaths in the country. The finding from this study will have a significant benefit in promoting prevention and early control mechanisms, conscious the policy makers and national programs about the need of preventive, treatment, diagnostic and palliative care facilities and shows the way to address it on the system.

Objectives: The aim of this study is to ass's prevalence and factors contributing to late diagnosis of breast cancer among women attending at Tikur Anbessa Specialized hospital, oncology unit, Addis Ababa, Ethiopia, 2017.

Methods: Facility based quantitative cross-sectional study was employed from March 2017. Systematic sampling technique was used involving 215 study participants. Data was collected using structured questionnaire for interview and supported from medical records. Collected data was cleaned for incompleteness and inconsistencies using Epi info 3.1. Data analysis was carried out using SPSS 20 version. Descriptive statistics including, frequencies, proportions and measures of central tendency was employed. Bivariate and multivariate analysis using Odds ratio (OR) was utilized to evaluate association between dependent and independent variables. P-value less than 0.05 were considered as level of significance for associations.

Result: In this study the prevalence of late diagnosis of breast cancer is 184(88.89%) with the remaining 23(11.11%) study participants early stage. According to this study, around 77 (52%) of the respondents mentioned lack of awareness about breast cancer symptoms as a reason for late diagnosed also 61 (41.2 %) of them reported as breast cancer relieve by itself, and 57 (38.5 %) difficult to make decision to go to health facility for help seeking as the reasons for late diagnosis related with the patient. Occupation was only variable significantly associated with late diagnosis of breast cancer among the socio-demographic characteristics **{AOR=0.2; 95% CI (0.001-0.80)}**. Others such as Health facility, consulted before being referred to TASH and breast examination done in initial consultation was significantly associated with late diagnosis of breast cancer **{AOR=1.10; 95% CI (2.50-4.85)}, {AOR=3.32; 95% CI (2.97-5.86)}** respectively.

Conclusion and recommendation: The study revealed that almost three fourth of the women were diagnosed for breast cancer at late stage. Awareness of breast cancer patients about early detection methods was low. Increase knowledge of women on different types of breast cancer symptom in order to increase early detection.

Key Words: late diagnosis, factor and breast cancer.

1. Introduction

1.1. Background

Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. Breast cancer is one type of cancer which is a malignant tumor that starts in the cells of the breast (1).

The causes of breast cancer are not fully known. However, researchers have identified a number of factors that increase one's chances of getting breast cancer (2).Risk factors for breast cancer include; family history of breast cancer, personal history of breast cancer, early menarche, (<12 years), late menopause (>55years), aging, excessive alcohol use, late age at first full-term pregnancy (>30 years), never breast feeding a child, high fat diet, tobacco smoking, post-menopausal obesity, recent and long term use of hormone replacement therapy, high-dose radiation to chest and lack of physical exercises (3).

Breast cancer is the most common cancer in women worldwide, with nearly 1.7 million new cases diagnosed in 2012 (second most common cancer overall). This represents about 12% of all new cancer cases and 25% of all cancers in women. Breast cancer is also the most common cause of cancer death among women (522 000 deaths in 2012) worldwide (4). Breast cancer is the most commonly diagnosed cancer in women with age adjusted incidence rate of 28per 100,000 and the second leading cause of death in women in Africa. The incidence varies across the continent ranges from 19·3 per 100 000 per year in eastern Africa to 38·1 per 100 000 in Southern and Western Africa (5).

Breast cancer is the first most often occurring among women in Ethiopia. Thousands of more cases unreported as women living in rural areas often seek treatment from traditional healers before seeking help from medical centers(6)Data from the Addis Ababa population based cancer registry showed that breast and cervical cancers were the leading commonly diagnosed cancer comprising 22.6% and 10.8% respectively of all cases of cancers in Addis Ababa(7)

According to Globocan 2012, Breast cancer was reported to be the first out of the ten top cancers registered in Tikur Anbessa specialized hospital oncology unit (6).

Breast cancer early detection is a means of identifying the occurrence of breast cancers at early stages (before it progresses to the advanced stages). Three main tests are used to screen the breast for cancer. These are breast self-examination (BSE), clinical breast examination (CBE) and mammography (8). Once breast cancer diagnosed there are specific treatment depends on stage and extent of the tumor. The main treatment options may include: surgery, radiation therapy, biological therapy (targeted drug therapy), chemotherapy and hormone therapy alone or in combination.

A delay in diagnosis can occur for many reasons. When an individual does not attend for screening, when the screening service does not diagnose the cancer or initiate a treatment pathway; when an incidental finding is not appropriately acted upon; when an individual does not recognize a symptom of cancer. When an individual with symptoms does not seek health care advice or when a healthcare practitioner or system fails to detect a cancer or initiate a treatment pathway (9).

1.2. Statement of the problem

Breast cancer incidence is increasing both in developed and developing regions. In 2008, an estimated 636,000 incident cases were diagnosed in high resource countries, while 514,000 cases were diagnosed in low and middle resource countries. It is the most frequent cause of death among women both in developing 269,000deaths and developed region with an estimated189, 000 deaths (10).

In sub-Saharan Africa (SSA), with 94 000 new cases of breast cancer and 48,000 deaths due to breast cancer occur in 2012. This burden is projected to double between 2012 and 2030 due to population ageing and expansion (11).In developing countries late presentation on diagnosis of breast cancer is common and more than 80% of patients present with advanced disease (7)(1, 2).According to the World Health Organization (WHO), the majority (69%) of all breast cancer deaths occurs in developing countries (12).

As evidences show, poor awareness of breast cancer symptoms, preventions, risk factors and treatment options have usually been associated with patient delay in seeking services. In developing countries including Ethiopia women present with late stages of disease because of physical barriers, such as geographical isolation, financial as well as psychological problems, including lack of education, belief in traditional medicine and lack of autonomous decision-making in the male-dominated societies resulting in reduced survival, more aggressive disease state and fewer treatment options (13).

Survival from breast cancer depends on two main factors. These are early detection and best treatment options however, most women seek consultation only when the disease is already at an advanced stage. The key strategy in reducing breast cancer related mortality, improving awareness about breast cancer early detection methods. This is very important because an excellent prognosis is directly associated with the stage at which the tumor is initially detected and how the tumor is localized (14).This all show the need of information on identifying the factors contributing to late diagnosis of breast cancer may help the community to reduce the chance of getting the disease. If not there will be high prevalence of late presentation of breast cancer as well as increase morbidity and mortality in the country. Hence, this study aims to asses' the prevalence and factors contributing for late diagnosis of breast cancer.

1.3. Significance of the study

There were no previous studies done on prevalence and factors contributing to late diagnosis of breast cancer in our country. Due to the increasing pattern of the disease, high prevalence of the risk factors and low level of knowledge of breast cancer, the need for breast cancer early detection program is apparent.

The results of the study will be helpful to design appropriate intervention strategies, providing a convenient programmatic approach to address the low level of awareness about breast cancer. Currently Ethiopia has launched national strategic action plan on non-communicable diseases control therefore, it is the right time to undertake such a study to give more emphasis to the disease condition and prevention service. It will also helpful in providing information as baseline for future studies and for planning intervention programs like that of health education and promotion regarding breast cancer. It also helpful for policy makers and national programs about the need of early detection, diagnosis treatment, and palliative care facilities and shows the way to address it on the system.

2. Literature review

2.1. Late diagnosis

A study in South Africa showed that, the majority of patients present with late stage disease Similar to other developing countries, which is associated with a poorer prognosis. Understanding the influence of these factors on the pathway women follow to breast cancer diagnosis is vital to the development of interventions (15).A study in Malaysia showed that, from328 study participants 140(42.7%) respondents used alternative therapy associated with delay (16).

A study in Egypt revealed that, about 60% of the participants presented with late-stage breast cancer (17). Research done in Morocco reports that the causes of diagnosis delay and associated factors. Among the 137 patients interviewed in this study, 96 (70.1 %) reported a personal reason to diagnosis delay. Traditional therapy was applied in 15 (12.7 %) of the patients (18).

2.2. Prevalence of late diagnosis of breast cancer

In Mexico, breast cancer is the leading cancer-related death among women and most cases are diagnosed at advanced stages (50-60%) (19). In women of all nationalities in the UAE, more than 65% diagnosed at late stages of breast cancer (either with regional or metastatic disease) at first diagnosis (20).A research done in Egypt showed that, More than 60-80% of breast cancers diagnosed at advanced stage from the total of breast cancer registered (21).

A systematic review in Africa showed that Over 50% of people diagnosed with breast cancer in most African countries present late and report to the hospital with advanced stage III and IV disease (22).About 70% of Iranian women with breast cancer are diagnosed at late-stage (23).

2.3. Patient factors

2.3.1. Socio demographic factors

On the other hand a study in Iran showed that, There was a statistically significant association between patient delay and age; with the highest prevalence of patient delay among women under 25 years of age (66.7%), followed by 25-34 year-old patients (53.3%) and the lowest among women 55- 64 years of age (20.2%) (P = 0.008). Then, the highest prevalence of patient delay

was 55.6% among women who aged less than 35 years (P = 0.001). Women of lower economic status more frequently delayed for the first medical visit (41.8%). Regarding the area of residence, women living in small cities or villages more commonly delayed (45.3%) in comparison to women residing in large cities (23.6%) (P<0.001). Educational status also showed a significant statistical association with delay. Patient delay did not show a significant association with marital status (P= 0.4) (24).

A study in New Zealand revealed that, age younger than 40 and older than 70 years were significantly associated with advanced and metastatic breast cancer at diagnosis compared with women aged between 40 to 69 years. Significantly higher proportions of more advanced cancer, including metastatic cancer were observed in rural compared with urban residing women (25).
A study in Northeast Thailand showed that, late stage at diagnosis was significantly associated with older age (P for trend = 0.04), lower level of education (P for trend = 0.01), lower family income (P for trend = 0.02) (26).

A research done in Iran showed that, illiterate patients associated with delay than those with a college degree (95%CI: 0.41–96.12, P=0.04). Patients from rural areas were diagnosed with breast cancer later compared with those from urban areas (95%CI: 53.82–121.92, P=0.001) (23).
A research done in Morocco revealed that, factors related to diagnosis delay, rural residence and far away from basic health and specialized care center (p = 0.001) A family history of breast cancer was significantly higher in who report a fear of cancer diagnosis delay (p < 0.001) (18).

A research done in Tanzania showed that, the marital status variable as statically associated with patient delay OR = 0.34 95% CI (0 .16, 0 .75). Other factors such as age, education level and occupation were not statistically significant associated (27). A study in Rwanda showed that, low education was the only demographic or socioeconomic factor significantly associated with a patient delay p = 5 .003(28).

2.3.2. Knowledge factors

Systematic review done in United Kingdom shows that patients' interpretation of symptoms and Non-recognition of the seriousness of symptoms related to lack of knowledge about the disease was the predominant risk factor for delay across all cancers (29).

A research done in Egypt revealed that knowledge about methods of breast cancer detection, 55% of the sample did not have knowledge about breast self-examination (21). A study done in Monastir region of Tunisia among 900 women, it was found 92% had poor knowledge of the specific risk factors for breast cancer and 63.2% had poor knowledge of the screening methods (30).

A study done on women dwellers in Nigeria; knowledge of the study participants about risk factors for breast cancer was low and only 26.2% were aware that breast cancer could be inherited in some families. Participant's knowledge about symptoms of breast cancer was poor (31). Another research done in Nigeria showed that; only 212 (52%) identified that the cause of breast cancer is unknown. 300 (73.7%) of the respondents claimed that they did not know any warning signs (32).A study in Botswana showed that, the majority of participants delayed going to the hospital because of the lack of awareness and knowledge regarding breast cancer (33).

A study in Addis Ababa Ethiopia showed that; among all the respondents 336 (53.1%) women have heard about breast cancer. And among women259 (77.1%) who have ever heard of breast cancer (34)

2.4. Symptom recognition and interpretation

Clinical symptoms pain, bleeding and symptom impact on daily life decrease delay on presentation, infrequent care seeking increase delay in diagnosis (29).The manner in which individuals interpret and label their symptoms had shown to influence help-seeking behavior in a wide range of illnesses including cancer. It had suggested that symptom recognition accounts for at least 60% of the total delay in cancer treatment in women with breast and gynecological cancer(35).

A study in north east Thailand showed that; in total, 118 (66%) of the patients initially presented with a lump. Those who sought medical attention for a breast symptom on the basis of advice from family or friends were significantly more likely to have a delay (P = 0.02) (26).

A research done in Teheran Iran, the first presenting symptom had been a mass in 74.3% (n = 286), metastasis symptoms in 8.3% (n = 32), mastalgia in 7.3% (n = 28), skin retraction in 5.2% (n = 20), nipple discharge in 2.6% (n = 10) and breast ulcer in 2.3% (n = 9)(24)(3). A study in Libya showed that, 136 (68%) patients with breast carcinoma noted a lump or lumps as an accidental finding, while 4 (2%) patients detected lump(s) during self-examination (36).

A research done in Morocco revealed that, from 66 (55.9 %) of patients they were not attributed the first symptoms presentations to breast cancer, 49 (41.5 %) of them thought that the absence of pain cancer diagnosis remains unlikely and 12 (10.2 %) of them were breastfeeding so they put all of breast symptoms on the account of its complications (18).

2.5. Health professionals or medical factors

A study in Malaysia showed that approximately 33.2% of respondents had a medical consultation within one month after detecting symptoms and 43.3% delayed the consultation by more than 3 months stay long period of time for consultation by their physicians (16).

A study in Iran showed that, from all patients, 118 (23.4%) had more than 90 days delay in the diagnosis of breast cancer. Among the respondents 36.2% reported misdiagnosis by their physician as the main reason (23).Another study in Tehran Iran showed that, all the patients experiencing diagnosis delay were in the group recruited from the public hospitals. According to the patients' reports, the main reasons for delay were reassurance of the physician regarding the presenting symptoms (42%)(24).

A systematic review done in Africa showed that, many general practitioners are losing their credibility because they gave false reassurance for patients that the lump was noncancerous (22).

On the other hand study done in Morocco showed that, 19 (13.9 %) of patients interviewed reports a medical reason to diagnosis delay. Often the factors related to 10 (24.4 %) were inappropriately reassured after negative diagnosis delay were complicated (18).

2.6. Health system related factors

A research done in Iran indicated that, lack of access to mammography or ultrasonography in the area of residence (15.9%) and consulting various physicians without proceeding with the recommended diagnostic procedures (7.2%).The main reasons for initiation of treatment later than one week from the confirmed diagnosis of malignancy were long waiting lists for receiving treatment (49.5%), lack of availability of treatment facilities (14.7%)(24).

A systematic review done in Africa indicates that some women delayed in seeking medical help because of lack of trust in the healthcare system. Public trust in healthcare system is highly affected by rapid occurrence of industrial unrest and lack of modern facilities (22). A study in Tanzania showed that 34% study participant treasons for their delay was cost of treatment (17).

Conceptual framework

The conceptual framework placed below shows the effect of independent variables (socio demographic factors, personal factors and health system factor) on dependent variable (late diagnosis of breast cancer).

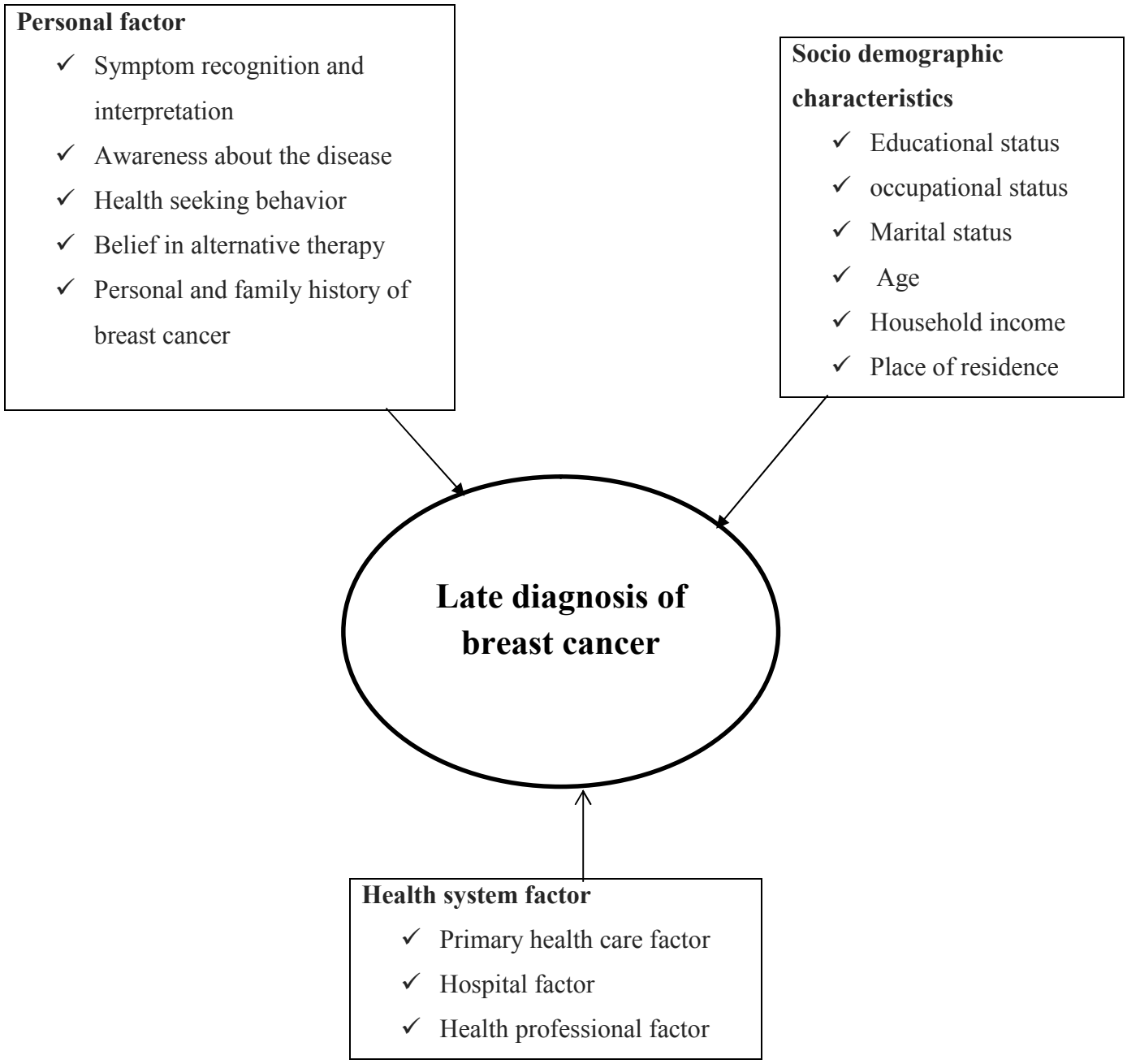

Figure 1: Conceptual frame work for late diagnosis of breast cancer.

3. Objective

3.1. General objective

- To assess prevalence and factors contributing to late diagnosis of breast cancer among women Tikur Anbessa specialized hospital, oncology unit, Addis Ababa, Ethiopia, 2017.

3.2. Specific objectives

- To determine prevalence of late diagnosed breast cancer at Tikur Anbessa specialized hospital, oncology unit, Addis Ababa, Ethiopia, 2017.
- To identify factors contributing to late diagnose breast cancer in Tikur Anbessa specialized hospital, oncology, unit, Addis Ababa, Ethiopia, 2017.

4. METHODOLOGY

4.1. Study area

The study was conducted at Tikur Anbessa specialized hospital (TASH), Addis Ababa, Ethiopia. Tikur Anbessa Specialized Hospital is found in Addis Ababa City, Lideta Sub City. The Hospital currently had 700 beds of which 19 were devoted for oncology patients. According to the registry in the unit, more than 10,000 cancer cases were seen in this hospital per year. This hospital worked as the nation's sole cancer referral center and has given chemotherapy, radiotherapy and palliative care for patients. In TASH oncology unit there were three senior oncologist, one palliative care specialist, nine residents, five radiotherapist, four medical physist and twenty one nurses. The most common cancer cases seen in this hospital were breast, cervical and sarcomas. This study was taken place at the oncology unit which is one of the specialty units of the hospital (37).

4.2. Study design and period

Facility based quantitative cross-sectional study design was conducted from March 1st to April 15th 20217.

4.3. Population

4.3.1. Source population

All women diagnosed with breast cancer in Tikur Anbessa specialized Hospital, oncology unit.

4.3.2. Study population

Eligible women diagnosed with breast cancer selected by systematic random sampling technique during the data collection period.

4.4. Eligibility criteria

4.4.1. Inclusion criteria

Female patients diagnosed with breast cancer at the time of data collection and who has clear stage (newly diagnosed and on follow-up female patient).

4.4.2. Exclusion criteria

- ✓ Critical ill patient and patients with mental problem.
- ✓ Those patients who had cancer from another site and disseminated to the breast

4.5. Sample size and sampling procedure

4.5.1. Sample size determination

To determine the sample size Assuming number of the study subjects as n, the standardized normal distribution curve value for 95% confidence level (1.96), taking 50% of proportion because no previous similar study in prevalence of late diagnosis of breast cancer, and taking the margin of error to be 5%. And applying single population proportion formula for a cross-sectional survey, the sample size was 384.

n= required sample size

z= critical value at 95% CI

p= prevalence rate, p is taken as 50%

d=Margin of error to be 5%

Z = 1.96 P = 0.5 d = 0.05

$$n = \frac{(z/2)^2 P(1-p)}{d^2} = \frac{(1.96)^2 0.5(0.5)}{(0.05)^2} = \mathbf{384}$$

Since flow of patients during data collection period was less than 10,000, then correction formulas was applied.

$$nf = \frac{n}{1+n/N} = \frac{384}{1+384/398} = \mathbf{195}$$

nf=desired sample size

n= the calculated sample size

N= total population

After adding 10% non-response rate the final sample size was **215**

4.5.2. Sampling procedures

According to the one year record of breast cancer, 3186 cases were seen in the oncology unit at Tikur Anbessa Specialized Hospital (TASH). Since the duration of the study was six weeks, the calculated flow within the six weeks was 398 and the required sample size was 215. Therefore, "K" was 2.02. Based on systematic random sampling technique every 2 study participants were enrolled in the study during data collection period.

4.6. Study variable

4.6.1. Dependent variable

- ✓ Late diagnosis of breast cancer

4.6.2. Independent variables

Socio-demographic characteristics

- ✓ Age
- ✓ Marital status
- ✓ Educational status
- ✓ Occupational status
- ✓ Area of residence
- ✓ Income

Personal factors

- ✓ Awareness about the disease
- ✓ Use of alternative therapy
- ✓ Personal and familial history
- ✓ First symptom recognition and interpretation
- ✓ Health seeking Behavior

Health system factor

- ✓ Primary health care factor
- ✓ Hospital factor
- ✓ Health practitioner factor

4.7. Operational definition

- **Early diagnosis**; patients diagnosed with breast cancer **stage 0**and**stage IA.**
- **Late diagnosis;** patients diagnosed with breast cancer **stage IIA, stage IB**, **stage IIB, stage IIIA, stage IIIB, stage IIIC and stage IV.**
- **Patient delay** refers to delays occurring between the discovery of symptoms and the first medical consultation, and the most accepted threshold to establish it is one month.
- **System delay** is that which takes place between the first medical consultation and the definite diagnosis or treatment, and the most accepted threshold is one month.
- **Breast cancer staging** based on American joint committee on cancer (AJCC) which is based on tumor size and the extent of spread of disease in the chest and distant organs.

4.8. Data collection Tools and procedures

A structured questionnaire developed from different literatures with modification was used to collect data and was supplemented by patient's medical records for cancer staging. It included all the relevant variables to meet the study objectives. The questionnaires were developed in English and translated into Amharic version for better understanding of enumerators and the study participants. The translated Amharic version was translated back to English to ensure consistency. The interview was conducted in outpatient and inpatient departments of oncology units at Tikur Anbessa specialized hospital. Data collectors were four nurses recruited from other department. The supervisors were monitored the completeness and consistency of data collection process of the interviewers and took curative measures consulted with principal investigator.

4.9. Data analysis procedures

The data collection instruments were coded and data were checked and entered using Epi data version 3.1.and cleaned and edited accordingly and was exported to SPSS version 20 for analysis and was checked for missing values before analysis. Descriptive statistics including, frequencies, proportions and measures of central tendency were employed. The analysis finding was presented using tables, figures and graphs. Binary logistic regression was used to measure association of each covariate with outcome variable. In addition, factors that were associated with outcome variable at 20 percent significance level were included in the multivariate analysis.

The result of the final model was expressed in terms of Odd Ratio (OR) and 95% confidence intervals (CI) and Statistical significance will be declared if the P-value is less than 0.05.

4.10. Data quality assurance

Before actual data collection pretest had been made 5% of sample size which was not included in the actual study. Problems with clarity and relevance in the instrument during the pretest were addressed immediately .To ensure data quality the data collectors were provided intensive training on the objective of the study, contents of the questionnaires, extracting the patient data through interview and reviewing the patient's records, when to start and end data collection process, whom to include and exclude and how to maintain confidentiality of the study subjects.

4.11. Ethical consideration

Ethical clearance was obtained from ethical clearance committee of Addis Ababa University, college of health sciences, school of allied department of nursing and midwifery. After receiving ethical clearance, permission to conduct the research was obtained from oncology center of TASH. Information sheet were prepared and read to all eligible participants, their participation is voluntary and written consent was obtained. Name of the participant was omitted from the questionnaire; instead we use code number to confirm confidentiality.

4.12. Dissemination of the result

The study result will be given to Addis Ababa University College of health science allied health science department of nursing and midwifery and it will be disseminated to FMOH, Policy makers, to studied health institution (TASH). Furthermore, the paper will be presented on workshops, seminars. Finally the manuscript will be submitted to scientific journals for possible publication.

5. Result

The study involved a total of 215 participants with response rate of 207(96.3%)**.** Of the total the majority 184(88.89%) were late stage breast cancer patients and the rest 23(11.11%) study participants were early stage and ready for final data analysis.

5.1. Socio demographic characteristics of study participants

The mean age of the study subjects who attended oncology unit was 41.6 ± 9.7 years and about 47 (22.7%) were between the age group of 35-39 years. Most of the study participants were from urban 148 (71.5%). Majority of the study participant's ethnicity were Amhara 82(39.6%), Oromo 66(31.9%). and Gurage 31(15.0%). Among the participant 105(50.7%) follow orthodox Christianity and 9 (4.3%) were Catholic religion followers. Out of total study subject, 148(71.5%) were married and the rest 36 (17.4%) were single and also 169(81.6%) were gave birth. From the total study participants illiterates accounted 55(26.6%) and high school educated were 51(24.6%). Most of study participants were house wife's 75(36.6%). Regarding to the respondents marital status, 148 (71.5%) were married and 6 (2.9%) were widowed. The largest portion of participant 127 (61.4%) travels one to four hours (hrs) and 44(21.3%) were travels one day and more than one day by available means to arrive Tikur Anbesa Specialized Hospital (TASH) to get health care service for breast cancer (Table 1).

Table 1: Socio-demographic characteristics of breast cancer patients among women are in TASH oncology unit Addis Ababa, Ethiopia, March 1st to April 15, 2017.

variables	Frequency	Percentage (%)
Places of residences		
Rural	59	28.5
urban	148	71.5
Ethnicity		
Amhara	82	39.6
Oromo	66	31.9
Guraga	31	15.0
Tigrae	15	7.2
Welayta	13	6.3
Region of residences		
Amhara	64	30.9
Oromo	52	25.1
SNNP	31	15.0
Tigrae	20	9.7
Addis Abeba	40	19.3
Religion		
Orthodox	105	50.7
Catholic	9	4.3
Protestant	48	23.3
Muslim	45	21.7
Age		
25-29	19	9.2
30-34	21	10.1
35-39	47	22.7
40-44	46	22.2
45-49	30	14.5
>50	44	21.3
Marital status		
Married	148	71.5
Single	36	17.4
Divorced	17	8.2
widowed	6	2.9
Give birth		
Yes	169	81.6
No	37	17.9

Educational status		
Illiterate	55	26.6
Informal education	23	11.1
Primary education	46	22.2
High school education	51	24.6
Diploma	27	13.0
Degree and above	5	2.4
Occupation		
House wife	75	36.2
Private employee	68	32.9
Farmer	13	6.3
Government employee	35	16.9
Daily laborer	12	5.8
Merchant	5	1.9
Family monthly income		
<500	21	10.1
501-1000	79	38.2
1001-1500	83	40.1
1501-2000	17	8.2
>2000	7	3.4
Time taken to come to TASH		
1-4hr	127	61.4
5-8hr	22	10.6
9-12hr	14	6.8
>=1day	44	21.3

5.2. Prevalence of late diagnosis of breast cancer

Out of 207 women with breast cancer 184 (88.89%) of them were late diagnosed and the rest 23(11.11%) were early diagnosed breast cancer patients (Figure 2).

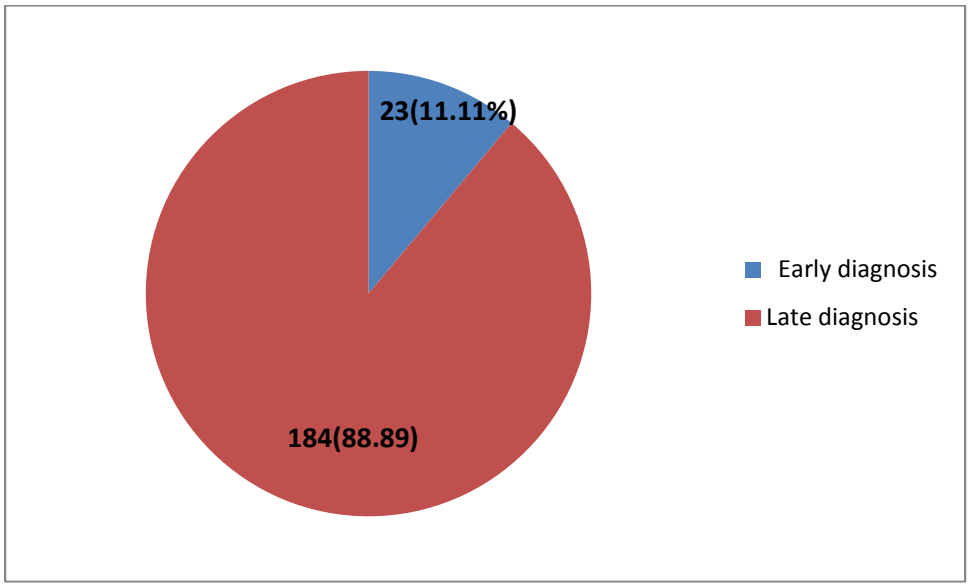

Figure 2: Prevalence of late diagnosis of breast cancer in Tikur Anbessa Specialized Hospital, oncology center Addis Ababa, Ethiopia, March 1st to April 15, 2017.

5.3 History of diagnosis of breast cancer patients

Most of the study participants 101 (48.8%) were consulted one health facilities, whereas 86 (41.5%), 20 (9.7%) were consulted 2-3 and greater than three health facilities, respectively before being referred to TASH. Among the study participants 173 (83.6%) were advised for any test from health facility for breast cancer. And also breast examination was done for 177 (85.5%) of women during initial consultation at health facility (Table 2).

Table 2: History of diagnosis of breast cancer patients in Tikur Anbessa specialized hospital, oncology center Addis Ababa, Ethiopia, March 1st to April 15, 2017.

Variable	Frequency	Percentage (%)
Health facilities consulted before being referred to this Hospital		
1 health facility	101	48.8
2-3 health facilities	86	41.5
>3 health facilities	20	9.7
Health facilities advised you for any test for Breast cancer in HF you visited first for current symptom		
Yes	173	83.6
No	34	16.4
Health facilities did breast examinations in initial consultation		
Yes	177	85.5
No	30	14.5

5.3. Time lag b/n late diagnosed breast cancer patient 1st notice signs or symptoms and 1st consultation to health facility.

Out of the total late diagnosed breast cancer patients 148(80.4%) were notice sign and symptom and consulted within one month and 36(19.6%) were notice sign and symptom but not consulted within one month. (Figure 3)

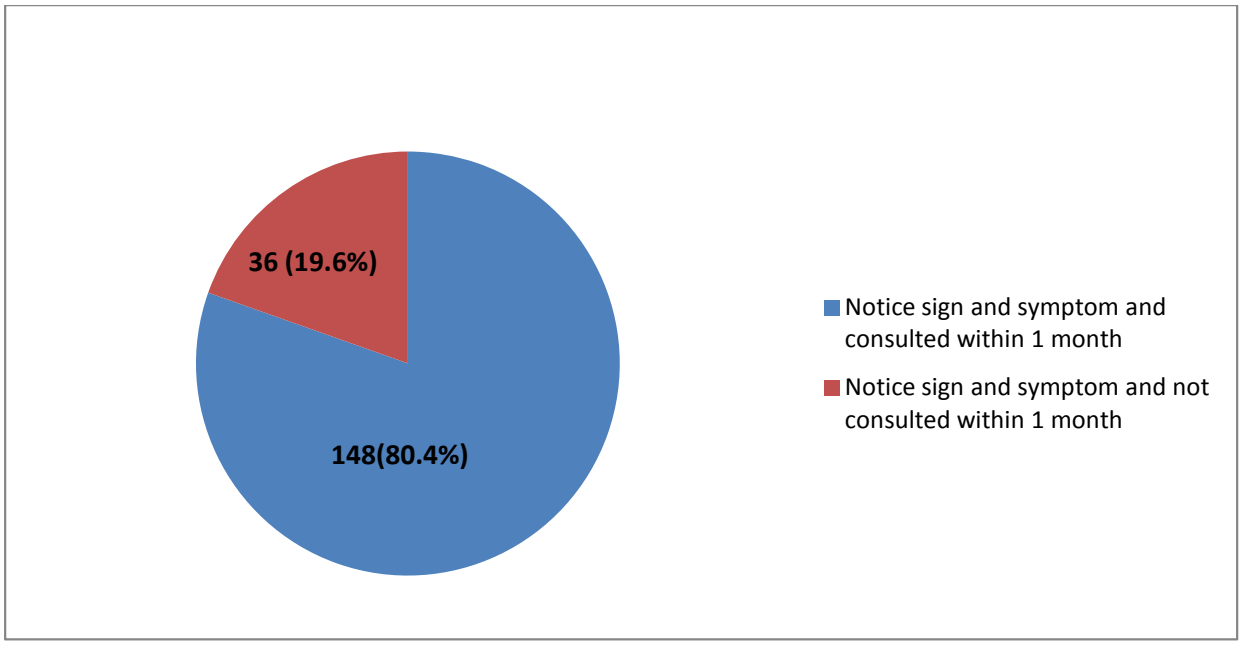

Figure 3: Time lag b/n late diagnosis of breast cancer patient 1st notice signs or symptoms and 1st consultation to health facility at TASH, oncology center March 1st to April 15, 2017.

5.4. Information on reasons for delay

5.4.1. Reasons related to personal factors, health facility factors and health care provider factors for late diagnosed breast cancer patients

According to this study, around 77 (52%) of the respondents mentioned lack of awareness about breast cancer symptoms as a reason for late diagnosed and 61 (41.2 %) of them reported as breast cancer relieve by itself. Among the late diagnosed participants, 77(52 %) were identified lack of awareness about breast cancer symptoms, 61 (41.2 %) thought it relieve by itself and 57 (38.5 %) difficult to make decision to go to health facility for help seeking as the reasons for late diagnosis related with the patient.

From the total study participants only 79 (42.9 %) were mentioned time lag between presentation and diagnosis. And also waiting time in the reception was mentioned by 58(73.4%) of the respondents as the reason for late diagnosis related with hospitals (Table 3).

Table 3: Reasons for late diagnosis of breast cancer at Tikur Anbessa hospital, oncology center, Addis Ababa, Ethiopia 2017

Variable Reason for late diagnosis	Frequency	Percentage (%)
Patient related factor		
Lack of cash money	35	23.6
Thinking that cancer will not be cured	7	4.7
Sought traditional healer and alternative practices	15	10.1
Difficulty to make decision	57	38.5
I thought it will relief by itself	61	41.2
I thought it is related to breast feeding	10	6.8
Lack of awareness about BC symptoms	77	52.0
Lack of time	2	1.4
Time lag between presentation and diagnosis		
Yes	79	42.9
No	105	57.1
Hospital related factor		
Waiting time in the reception	58	73.4
Waiting time to see a doctor	7	8.9
No appropriate Physician	11	13.9
Inappropriate diagnosis	16	20.3
Availability of investigations	2	2.5
Health professionals related factor		
Professionals lack of appropriate attention	23	29.1
unable to examine the patient appropriately	6	7.6
Time lag between referral and presentation		
Yes	36	19.6
Lack of cash money at that time	15	41.7
Sought traditional faith healer and alternative practices	12	33.3
Distance from health facility	12	33.3
No	148	80.4

5.5. Patient's history on help seeking from health care professional, health awareness and obstetric history.

The largest portion of respondents 166(80.2%) said lump in the breast for the presentation of breast cancer and among all study participants, 139(67.1%) shared the problem with someone. From those shared the problem, 79(56.8%) share the problem to husbands and 63 (45.3%) to other family member. Most of the participants 109(52.7%) mentioned nowhere/self-medication for 1st contacted for help, 60(29.0%) contacted health facility and 30(14.5%) contacted traditional healer. Among the participants only 77(37.2%) previously heard about breast cancer and 31(15.0%) heard about breast cancer early detection methods. Among all participants only 10 (4.8%) were undergone breast cancer early screening and 11(5.3%) has family history of breast cancer. Among the participants 72(34.8%) those mentioned use of contraceptives, 36(50.0%) of them used Depo-Provera and 22(30.6%) used pills and most of the study participants 43(59.7%) were used contraceptives for less than five years. (Table 4)

Table 4: Patient history on help seeking from health care professionals, awareness and obstetric history of breast cancer patients at Tikur Anbessa specialized hospital, oncology center, Addis Ababa, Ethiopia, March 1st to April 15, 2017.

Variable	Frequency	Percentage (%)
Sign and symptoms		
Lump in the breast	166	80.2
Discharge	5	2.4
Pain or in the breast	19	9.2
Change in size of the breast	8	3.9
Dimpling of the breast	9	4.3
Ulceration of the breast	7	3.4
Changes in shape of the breast	10	4.8
Pulling in of nipple	7	3.4
Swelling of the breast	30	14.5
Lump under armpit	3	1.4
Share the problem to other		
Yes	139	67.1
No	68	32.9
To whom shared the problem		
Husband	79	56.8
Friends	26	18.7
family members	63	45.3
neighbors	1	0.7
First contacted for help		
Traditional healers	30	14.5
Health extension workers	8	3.9
Nowhere /Self medication	109	52.7
Health facility	60	29.0
Previously heard about breast cancer		
Yes	77	37.2
No	130	62.8
previously heard about breast cancer early detecting		
Yes	31	15.0
No	176	85.0

Ever done BSE, CBE and mammogram (early detection methods) before the diagnosis of the current disease		
Yes	10	4.8
No	197	95.2
Familial history of breast cancer		
Yes	11	5.3
No	196	94.7
Starting Age of menarche		
11-15	172	83.1
>15	35	16.9
Ever used contraceptive	72	34.8
Yes	135	65.2
No		
Which type of contraceptive		
Pills	22	30.6
Dipoprovera	36	50.0
Implant	14	19.4
for how long use contraceptive		
<=5	43	59.7
>=6	29	40.3

5.6. Associated Factors related with late diagnosis

Bivariate and multivariate analysis was performed between late diagnosis of breast cancer (dependent variable) and socio demographic factor, personal factor, health care provider's factor and health facility factor (independent variables). Factors like marital status and occupation significantly associated with late diagnosis breast cancer in binary logistic regression. However occupation remains significantly associated with late diagnosis of breast cancer in multi logistic regression.

In multi-logistic regression analysis, it was found that women who were Private employee were 0.2 times less likely to be late diagnosed than those women who were house wife, **{AOR=0.2; 95% CI (0.001-0.80)}**. **(Table5)**.

Table 5: Association of late diagnosis of breast cancer with socio demographic variables of breast cancer patients at Tikur Anbessa Specialized hospital, oncology center, Addis Ababa, Ethiopia, March 1st to April 15, 2017.

Variable	Late diagnosed		P-value	COR (95%CI)	AOR (95%CI)
	Yes	No			
Age					
25-29	16 (8.7%)	3 (13.0%)	0.82	0.84(0.183.78)	0.4 (0.03-4.35)
30-34	21 (11.4%)	0 (0%)	0.98	1.5 (0.33-7.36)	1.7 (0.38-8.45)
35-39	42 (22.8%)	5 (21%)	1.32	1.2 (0.27-5.61)	2.4 (0.29-12.12)
40-44	40 (21.7%)	6 (26.1%)	1.05	1.6(0.30-9.38)	1.3 (0.15-11.59)
45-49	27 (14.7%)	3 (13%)	1.42	1.1(0.26-5.34)	3.0 (0.25-8.24)
>=50	38 (20.7%)	6 (26.1%)	0.64	1	1
Place of residence					
Rural	52 (28.3%)	7 (30.4%)	0.82	0.9(0.35-2.31)	4.0 (0.69-24.33)
Urban	132 (71.7%)	16(69.6%)	0.001	1	1
Marital status					
Married	139 (75.5%)	9 (39.1%)	0.02	**2.7(1.24-4.79)**	5.9 (0.23-8.72)
Single	29 (15.8)	7 (30.4%)	0.45	2.0(0.3113.67)	1.4 (0.05-3.74)
Divorced	12 (6.5%)	5 (21.7)	0.85	1.2(0.16-8.79)	1.8 (0.56-6.46)
Widowed	(2.2%)	2 (8.7)	0.42	1	1
Educational status					
Illiterate	6 (26.1%)	49 (26.6%)	0.001	1	1
Informal education	5 (21.7%)	18 (9.8%)	0.21	0.44(0.12-1.62)	8.2 (0.25-11.45)
Primary education	5 (21.7%)	41 (22.3%)	0.99	1.00 (0.28-3.53)	6.3 (0.14-12.56)
High school	5 (21.7%)	46 (25.0%)	0.85	1.12 (0.32-3.94)	2.34 (0.40-3.47)
Diploma	1 (4.3%)	26 (14.1%)	0.29	3.18 (0.36-27.87)	3.4 (0.43-5.68)
Degree or post graduate and above	1 (4.3%)	4 (2.2%)	0.55	0.49(0.04-5.13)	7.5 (0.68-14.52)
Occupation					
Housewife	71 (38.6%)	4 (17.4%)	0.001	**1**	1
Private employee	57 (31.0%)	11 (47.8%)	0.04	**0.29 (0.08-0.96)**	**0.2 (0.01-0.80)**
Farmer	11 (6.0%)	2 (8.7%)	0.20	0.31 (0.05-1.89)	0.1 (0.02-1.15)
Government employee	31 (16.8%)	4 (17.45%)	0.26	0.43(0.10-1.85)	0.05 (0.003-1.01)
Daily laborer	10 (5.4%)	2 (8.7%)	0.17	0.28(0.04-1.74)	0.1 (0.005-2.14)
merchant	4 (2.2%)	0 (0%)	0.98	0.98(0.01-1.97)	0.4 (0.47-1.37)

NB: constants indicated by 1 whereas bold indicates statistical significant association

5.7. Association of late diagnosis with history of diagnosis of breast cancer patients

Bivariate and multivariate analysis was performed between late diagnosis of breast cancer (dependent variable) and history of diagnosis of breast cancer. Health facility consulted before being referred TASH and women's who were breast examination done in initial consultation were significantly associated with late diagnosis breast cancer in binary logistic regression. Health facility consulted before being referred TASH and women's who were breast examination done in initial consultation were significantly associated with late diagnosis of breast cancer in multi logistic regression.

On Multiple logistic regression analysis, those women consulting health facility 2-3 times 3.32 times more likely late diagnosed compared to one times consulted health facility **{AOR=3.32; 95% CI (2.97-5.86)}.**Women those breast examination was done for them at 1st consultation were 0.34 times less likely to be late diagnosed compared to women those breast examination was not done for them at the 1st consultation **{AOR=0.34; 95% CI (0.096-0.97)}**. (Table 6)

Table 6: Association of late diagnosis with patient history of diagnosis of breast cancer patients at Tikur Anbessa Specialized hospital, oncology center, Addis Ababa, Ethiopia, March 1st to April 15, 2017.

Variable	Late diagnosis		p-value	COR (95%CI)	AOR (95%CI)
	Late	Early			
Health facility consulted before being referred TASH					
1	80 (43.5%)	21(91.3%)	0.001	1	1
2-3	84 (45.7%)	2 (8.7%)	0.002	**11.02 (2.50-4.85)**	**13.21(2.97-5.86)**
>3	20 (10.9%)	0(0.0%)	0.98	0.98(0.01-1.87)	2.76(0.01-1.26)
Advised for current symptom					
Yes	150 (81.5%)	14 (60.9%)	0.98	1.5 (0.57-4.24)	0.96(0.23-3.93)
No	34 (18.5%)	9 (39.1%)	0.001	1	1
Breast examination done in initial consultation					
Yes	154 (83.7%)	12 (52.2%)	0.004	**0.2(0.08-0.52)**	**0.34(0.096-0.97)**
No	30 (16.3%)	11 (47.8%)	0.001	1	1

NB: constants indicated by 1 whereas bold indicates statistical significant association

5.7. Association of late diagnosis with Patient's history, Information on help seeking from health professional and obstetric history with late diagnosis of breast cancer

In the binary logistic regression first contacted for help and family history of breast cancer were associated with late diagnosis of breast cancer. While in multivariate logistic regression analysis there was no significant association.

In binary logistic regression women first contacted health facility for help 0.05 less likely to be diagnosed late compared with women did not go nowhere for help. **{COR=0.05; 95% CI (0.06-0.45)}**. Women who had family history of breast cancer were 5.32 more likely to be diagnosed late compared with women who did not have family history of breast problem **{COR=5.32; 95% CI (1.42-19.85)}**. In multivariate logistic regression analysis there was no significant association. (Table 7)

Table 7: Association of late diagnosis of breast cancer with patient's history Information on help seeking from health professionals and obstetric history at Tikur Anbessa Specialized hospital, oncology center, Addis Ababa, Ethiopia, March 1st to April 15, 2017.

Variable	Diagnosed breast cancer		p-value	COR (95%CI)	AOR (95%CI)
	Late diagnosed	Early diagnosed			
Breast lump					
Yes	149 (81%)	17 (73.9 %)	0.42	0.66 0.24-1.81)	1.2(0.05-1.83)
No	35 (19%)	6 (23.1 %)	0.001	1	1
Share the problem to others					
Yes	116 (63 %)	23 (100%)	0.97	1.4(0.09-3.45)	1.2 (0.23-4.52)
No	68 (37 %)	0 (0 %)	0.98	1	1
First contacted for help					
Traditional healers	30 (16.3 %)	0 (0%)	0.99	0.23 (0.45- 4.67)	0.34 (0.56- 5.32)
Health extension workers	1 (0.5%)	7 (30.4%)	0.008	1.3 (0.78-5.34)	1.8 (0.89-5.76)
Health facility	44 (23.9%)	0 (0 %)	0.99	**0.05 (0.06- 0.45)**	0.14 (0.014- 1.41)
Nowhere /Self medication	109 (59.2%)	16 (69.6 %)	0.001	1	1

Previously heard about breast cancer					
Yes	68 (37 %)	9 (39.1 %)	0.83	1(0.45- 2.66)	0.4(0.12-2.31)
No	116 (63 %)	14 (60.9 %)	0.001	1	1
Previously heard about breast cancer screening					
Yes	29 (15.8 %)	2 (8.7 %)	0.37	0.5(0.11-2.29)	0.2 (0.036-1.96)
No	155 (84.2 %)	21 (91.3 %)	0.001	1	1
Family history of breast cancer					
Yes	7 (3.8 %)	4 (17.4 %)	0.001	**5.32(1.42-19.85)**	3.3 (0.37-30.35)
No	177 (96.2 %)	19 (82.6 %)	0.37	1	1
Ever used contraceptive					
Yes	64 (34.8%)	8 (34.8 %)	1.00	1(0.4-2.48)	0.6 (0.14-3.06)
No	120 (65.2 %)	15 (65.2 %)	0.001	1	1

NB: constants indicated by 1 whereas bold indicates statistical significant association

6. Discussion

This facility based cross sectional study has attempted to assess the prevalence and factors contributing to late diagnosis of breast cancer among Women Attending Tikur Anbessa specialized Hospital, Oncology Unit, Addis, Ababa, Ethiopia. From the total of 215 breast cancer patients, 207(96.3%) participated in the study. This is relatively a high response rate and could be due to the result of organized data collection and supervision.

The prevalence of late diagnosis of breast cancer among women attending Tikur Anbessa Specialized Hospital oncology unit was 88.9%. This is higher as compared to the studies which was carried out in Tanzania and Egypt which were reported that the prevalence were 69 % and 60 % respectively (27, 17).This higher prevalence of late diagnosed of breast cancer in our study than other countries could be due to low awareness about the disease and early detection methods and also could be due to low medical care help seeking, in Tanzania and Egypt there was breast cancer campaign that can increase early detection of the disease (40, 41). But this study finding on prevalence of late diagnosis slightly similar with the study in Malaysia 81% late diagnosed (16).

A cross-sectional study done in Morocco among 137 study participant, revealed that, Reasons for late diagnosis related to patient was sought traditional healer (12.7%) among late diagnosed patients was identical to the current study (10%). Breast lump was a first alarm symptom in majority of our patients (81 %) which was consistent with the study done in Morocco (18).

In relation to place of residence, more than half of the respondents were from urban areas which is comparable with research done in Egypt (21), And also similar findings were reported in the study conducted in Africa, Morocco and Iran, where the breast cancer is more in urban areas than rural areas (38, 18, 39).The areas where there is increased risk factor for breast cancer and increased other risk behaviors.

Majority of the respondents in the current study were not aware of the breast cancer (63%) and early detection (84.8%), as result for most of them their first contacted for help was not health care providers, for example 10.1% of them sought traditional healer and alternative practice, this

shows why most of the women did not seek medical help early and rather focus on different issues this finding was consistent with study conducted in Egypt where only one third of the women were their initial contact was health facility (17) and in Tanzania, where 37% were receiving treatment at traditional healer (27).

Age, place of residence and educational status were not associated statistically with delayed diagnosis of the breast cancer, this was the same with the study in Egypt (17). However, the finding of the current study was inconsistent with the findings in Iran study where age was significantly (P = 0.001) associated with delay of breast cancer diagnosis (39).

Those who delayed in seeking treatment were asked for reasons for their delay for seeking health care after being diagnosed with breast cancer, among them Lack of money (41.7%) and distance from health care facility (33.3%) was the reason for delay of seeking early medical help. This is somehow similar with study conducted in Tanzania where Lack of money and distance from health care facility was 34% and 15% respectively**.** (27).

Breast lump was among the most common presentation of breast cancer this is consistent with study done in Botswana among cancer patients in hospital **(**32)

In our study patient delay for diagnosis of breast cancer was most common among women older than 35 years of age. But in Iran, women younger than 35 years of age were most commonly delayed for breast cancer diagnosis**.** This could be due to the mean age for breast cancer in Iran is about ten years less than the average in developed countries (39).

In this study patients had consulted a health care provider within one month following appearance of symptoms was 11.1%. This is inconsistent with studies done among Iran and Malaysia women which were 68.3% and 33.2 % respectively. This discrepancy can be explained due to the difference in awareness about early detection of the breast cancer (39, 16).Results of this finding show that majority of the sample had menarche at age less than or equal to 15 years and more than half of the women had no family history of breast cancer and did not heard about breast cancer early detection methods, similar finding was identified in Egypt (21).

7. Strength and limitation of the study

7.1. Strength

- There is high response rate in this study
- Use of same gender interviewers

7.2. Limitation

- The main limitation of this study was recall bias due to retrospective assessment of the patients.
- Cross-sectionals design may not show temporal relationship between exposure and outcome variables
- Shortage of literatures in late diagnosis of breast cancer in developing countries and in Ethiopia.

8. Conclusion and recommendation

8.1. Conclusion

The study revealed that almost three fourth of the women were diagnosed for breast cancer at late stage. The majority of patients notice lump as the sign of the breast cancer, however this did not reduced the patient delay. Awareness of breast cancer patients about early detection methods was low. Among the reasons reported by the patients for delaying, lack of money and thought as it relief by itself were frequently identified. Breast examination has indirect association with late diagnosis of breast cancer and consulting health facility has direct association with late diagnosis of breast cancer. Those patients more consulted health facility was more likely to be late diagnosed and breast examination was done for them at initial consultation was less likely to be late diagnosed. Those patients who were house wife were more likely to be late diagnosed.

8.2. Recommendation

Most patients diagnosed at late stage have lower chances of survival compared to early diagnosed patients. Cancer that's diagnosed at an early stage, before it's had the chance to get too big or spread is more likely to be treated successfully. Therefore this study recommend to:-

Health care providers

- To Increase knowledge of women on different types of breast cancer symptom in order to increase early detection.
- Design health education strategies to increase awareness about breast cancer and early detection methods.

Ministry of health

- Expanding cancer care to provide early treatment and to decrease late diagnosis of breast cancer by offering early detection service.
- Empowering women to practice BSE and other early detection methods

Other researchers

Used for researchers as a base line for further investigation to explore detail reasons of late diagnosis by using qualitative study design which is not included in this study, to identify and develop interventions.

9. Reference

1. American Cancer Society. Breast cancer facts and figures. 2008. .
2. Ferlay J SI, Ervik M, et al; . International Agency for Research on Cancer. GLOBOCAN 2012 IARC CancerBase No 11 globocaniarcfr Accessed December 12, 2013. 2013; v1.0,.
3. American cancer Society (ACS). Breast Cancer Facts & Figures .Atlanta. www.iosrjournals.org 2009-2010.
4. Ferlay J SI, Ervik M,. Cancer Incidence and Mortality Worldwide. IARC CancerBase 2012.
5. GLOBOCAN (IARC). Breast Cancer Incidence, Mortality and Prevalence Worldwide in CANCER FACT SHEET,. 2010
6. GLOBOCAN (IARC) , 2012. estimated breast cancer incidence and mortality in Ethiopia. international agency for research on cancer. 2012.
7. Saghir,N.S. , Adebamowo, C.A., Anderson, B. O., Carlson, R.W. , Bird P. A., Corbex, M., Badwe , R.A., Bushnaq, M. A., Eniu, A. 2011. Breast cancer management in low resource countries (LRCs): Consensus statement from the Breast Health Global Initiative, The Breast 20 (2011) S3-S11,www.elsevier.com/brst
8. Ali TS, Baig, S. ,. . Evaluation of a cancer awareness campaign: experience with a selected population in Karachi. Asian Pacific Journal of Cancer Prevention,. 2006;7: p. 391-395.
9. National patient safety agency, UK national reporting and learning service delayed diagnosis of cancer. NPSA,UK. 2010.
10. GLOBOCAN 2008 (IARC), CANCER FACT SHEET, Breast Cancer Incidence, Mortality and Prevalence Worldwide in 2008, www@iarc.fr © IARC 2010
11. Ferlay J SI, Dikshit R, et al. . Cancer incidence and mortality worldwide: . GLOBOCAN Int J Cancer 2015; 136:E359–86. 2012.
12. WHO. Developing World Faces Breast Cancer Surge, Study Suggests,. 2013.
13. CH Y. Breast health in developing countries. 2008
14. M.Parkin. D. Cancer in developing countries, Trends in Cancer Incidence and Mortality Cancer Surveys. . 19/20, 519 – 555. 2004.
15. A. Maghous FR, S. Ahid, N. Benhmidou, K. Bellahamou, H. Loughlimi, E. Marnouche, S. Elmajjaoui,H. Elkacemi, T. Kebdani and N. Benjaafar, Maghous et al. .

Factors influencing diagnosis delay of advanced breast cancer in Moroccan women. BMC Cancer (2016) 16:356. 2014; 16:356.

16. Bachok Norsa'adah KGR, Mohd A Rahmah, Nyi N Naing and Biswa M Biswal. Diagnosis delay of breast cancer and its associated factors in Malaysian women, . BMC Cancer 2011,. 2007.
17. Shimaa M. Mousa IAS, Ahmed Hablas, Eman S. Elbana, and Amr S. Soliman, . Patterns of seeking medical care among Egyptian breast cancer patients: Relationship to late-stage presentation. NIH Public Access. 2011;20(6): 555–561.
18. A. Maghous, F. R., S. Ahid, N. Benhmidou, K. Bellahamou, H. Loughlimi, E. Marnouche, S. Elmajjaoui,H. Elkacemi, T. Kebdani1 and N. Benjaafar. (2014). "Factors influencing diagnosis delay of advanced breast cancer in Moroccan women." BMC Cancer **16:356**.
19. Kristin Bright a, Maya Barghash b, Martin Donach a, Marcos Gutiérrez de la Barrera c,, Robert J. Schneider a SCFdjb. The role of health system factors in delaying final diagnosis and treatment of breast cancer in Mexico City, Mexico. wwwelseviercom/brst. 2012.
20. Elobaid YE, ". breast cancer presentation delay among women in the United Arab emirates". 2014
21. Gehan M. Ismail AAAEHaAGAE. Assessment of Factors that Hinder Early Detection of Breast Cancer among Females at Cairo University Hospital; . World Applied Sciences Journal. 2013; 23 (1): 99-108, .
22. A. D. Factors Contributing to Late Presentation of Breast Cancer in Africa: A Systematic Literature Review. . Arch Med 2015; 8:2.
23. Mostafa Dianatinasab M, Mohammad Fararouei, PhD, Mohammad Mohammad ianpanah, MD, and M. Mohammad Zare-Bandamiri . Impact of social and clinical factors on diagnostic delay of breast cancer. " Medicine (2016). 2015; 95:38(e4704), .
24. Iraj Harirchi MK, Fatemeh Hadi , Seyyedeh Sedigheh Madani ,Fereydoun Sirati Shadi Kolahdoozan,. Patient Delay, Diagnosis Delay and Treatment Delay for Breast Cancer: Comparison of the Pattern between Patients in Public and Private Health Sectors. . Arch Breast Cancer 2015;Vol. 2, No. 2: 52-57.

25. Sanjeewa Seneviratne RL, Vernon Harvey, Reena Ramsaroop, Mark Elwood, Nina Scott5, Diana Sarfati6 and Ian Campbell, . Stage of breast cancer at diagnosis in New Zealand: impacts of socio-demographic factors, breast cancer screening and biology. BMC Cancer 2013;16:35616:129.
26. Amornsak Poum SP, Stephen W Duffy, and Donald Maxwell Parkin . "Factors Associated With Delayed Diagnosis of Breast Cancer in Northeast Thailand.". Epidemiol 2014. 2013;24(2):102-108;.
27. Angelina Mtowa. factors contributing to delay in seeking referral treatment among breast cancer patients at ocean road cancer institute and Muhimbili national hospital dare salaam, Tanzania .
28. Lydia e. pace T, Vedaste Hategekimana, Jean-Marie Vianney Dusengimana, Hamissy Habineza, Jean Bosco Bigirimana, Cadetmutumbira, Egidempanumusingo,Jean paul Ngiruwera, Neo tapela, Cheryl amoroso, Lawrence n. Shulman, Nancy . Keating. Delays in Breast Cancer PresentationandDiagnosis at TwoRural Cancer Referral Centers in Rwanda. TheOncologist 2015. 2014; 20:780–788.
29. Macleod U ME, Burgess C, Macdonald S, and Ramirez AJ: . Risk factors for delayed presentation and referral of symptomatic cancer: evidence for common cancers. . Br J Canc 2009;101(s2):9210
30. Sana El Mhandi AC IBA, Mohamed Soussi Soltani A Women's knowledge, attitude and practice about breast cancer screening in the region of Monastir (Tunisia). . Australian Journal of Primary Health 2011;19(1) p. 68-73.
31. Michael N Okobia CHB. Knowledge, attitude and practice of Nigerian women towards breast cancer: A cross-sectional study. . World Journal of Surgical Oncology 2006;4: p. 11.
32. O Abimbola Oluwatosin and Oladimeji Oladepo. , Knowledge of breast cancer and its early detection measures among rural women in Akinyele Local Government Area, Ibadan, Nigeria;. BMC Cancer 2006, 6:271. 2004
33. Mbuka-Ongona D TJ. Knowledge about breast cancer and reasons for late presentation by cancer patients seen at Princess Marina Hospital, Gaborone, Botswana. . Afr J Prm Health Care Fam Med 5(1), Art. #465, http://dx.doi.org/10.4102/ phcfm.v5i1.465.

34. Sandra Abeje. assessment of knowledge, attitude and practice of adult women towards breast cancer screening in Addis Ababa, Ethiopia. 2015.
35. B AB. Delay in seeking a cancer diagnosis: delay stages and psycho physiological comparison processes. r J Soc Psycho 2005; 34:-52.
36. Eramah Ermiah FA, Abdelbaset Buhmeida, Entesar Larbesh, Seppo Pyrhönen and Yrjö Collan. Diagnosis delay in Libyan female breast cancer., . BMC Research Notes. 2012;5:452: 2.
37. TASH oncology unit manager office, 2017.
38. Andrew Donkor, Judith Lathlean, Seth Wiafe, Verna Vanderpuye, Deborah Fenlon. Factors Contributing to Late Presentationof Breast Cancer in Africa: A Systematic Literature Review. iMedPub Journals. 2015. Vol. 8 No. 2:2
39. Iraj Harirchi ,Mojgan Karbakhsh , FatemehHadi , Seyyedeh SedighehMadani , Fereydoun SiratiShadi Kolahdoozan. Patient Delay, Diagnosis Delay and Treatment Delay for Breast Cancer: Comparison of the Pattern between Patients in Public and Private Health Sectors. open access, 2015.
40. Nani Kama Mama. The medical women association of Tanzania (MEWATA). Breast Cancer Campaign in Kilimanjaro-Report in 2005-2008.http://www.mewata.org/what-we-do/breast-cancer-screening.html
41. *Dr. Dorria Salem,Egyptian Cancer Breast. Screening Programme. Early detection is our only protection* http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan046600.pdf

Annex I English version structured questionnaire

Information sheet and consent

Hello. My name is _____. I am data collector for master of oncology nursing student project in Addis Ababa University. I am conducting a research to identify the contributing factors for late Presentation and diagnosis of breast cancer in Addis Ababa, Ethiopia. The information that I will collect will help to identify the problem, make interventional, and health system difference to make the situation better. Now you are systematically selected for the study. The questions usually take about 15 to 20 minutes. There is no direct benefit to the participants but accordingly the result will provide important information on addressing the problem about the delays and late diagnosis by creating a convenient programmatic approach to give appropriate service to the respective population. Participating in this study will not have any risk or harm. You either have full right to Participate or decline participation in this study as participant. You may respond to all the questions or you may not answer to questions you do not want to and you may end the interview at any time you want. You can ask any question that is not clear for you. Any information forwarded will be kept confidential and names will not be written or specified.

May I begin the interview now?
Signature of interviewer: ---------- Date: ----------/--------/--------

1. RESPONDENT AGREES TO BE INTERVIEWED→ interview
2. RESPONDENT DOES NOT AGREE TO BE INTERVIEWED→ end

For more information and questions here is the contact address of investigator.

Haregewoin Ayalew
Tel: +251911565505
E-mail: haregyeayalew@gmail.com

English version consent form

I_____ am informed on study to be conducted by Masters Student in AAU, college of health sciences department of nursing and on factors contributing to late diagnosis of breast cancer among women at Black lion specialized hospital. Participation in this study is voluntary, no obligation to answer any questioner there is no harm by not answering the questions and no special benefit by answering the question and also the interview will take 15-20 minutes .I heard all the information mentioned above and willing to participate in the interview.

1. Name of interviewer_____ Signature_____

(Signature of interviewer certifying that respondent has given informed consent verbally

Identification (filled from medical records)

Hospital registration no… Date …….

SN	Description	Value
1	Date of first visit at oncology unit of TASH	Day…….. Month……. Year……..
2	Date of referral	Day…….. Month……. Year……..
3	Total no. of visits (consultations) in Cancer hospital till diagnosis.	
4	Were patient advised to go any other place for any test?	1. Yes **2.** No
5	Stage of breast cancer at diagnosis	Specify …….
6	Current stage of diagnosis	Specify stage ……

Part 1- Introductory and socio demographic information

Code	Question	Alternative	Skip
101	Where is your usual place of residence?	1. Urban 2. Rural	
102	What is your Ethnicity?	1. Amhara 2. Oromiya 3. Gurage 4. Tigray 5. Wolyata 6. Others (specify)	
103	What is your region?	1. Amhara 2. Oromia 3. SNNPR 4. Afar 5. Tigray 6. Gembella 7. Others (specify)	
104	What is your religion?	1. Orthodox 2. Catholic 3. Protestant 4. Muslim 5. Others (specify)	
105	How old are you?	Age in completed years_____	
106	What is your marital status?	1. Married 2. Single (never married) 3. Divorced/separated 4. Widowed	
107	Did you give birth?	1.Yes 2.No	
108	What is your educational status?	1. Illiterate 2. Informal education 3. Primary education 4. High school education 5. Diploma 6. Graduate or post graduate and above	

109	What is/ was your occupation, that is, what kind of work do you mainly do?	1. House wife 2. Private employee 3. Farmer 4. Government employee 5. Daily laborer 6. Merchant 7. Student 8. Others (specify)_____	
110	What is your monthly income in Birr?	1. <500 2. 501-1500 3. 1501-2000 4. >2000	
111	How many hours/ days it takes to come to this hospital by available means from your home?	Hours……..days…… 1.1-4hr 2.5-8hr 3.9-12hr 4 >=1day	

Part 2-Patient's History on diagnostic pathway: Use supportive documents of previous history

Code	Question	**Alternatives**	**Skip**
201	How many Health facilities have you consulted before being referred to this Hospital for the current complaint that is diagnosed as cancer?	No. of HFs…….	
202	What problem had they diagnosed for your current symptoms in the HF you consulted before being referred to this hospital?	**Diagnosis in…….**	
203	Had they advised you for any test for Breast cancer in HF you visited first for current symptom?	1. Yes 2. No	
204	Are they did breast examinations in initial consultation?	1. Yes 2. No	

Part 3- Information on reasons for delay (supported by medical record)

Code	Question	Alternatives	Skip
301	When did you first notice signs or symptoms of the current condition?	Year…..month …… date …	
302	When did you consult a health professional for the current compliant for the first time?	Year…..month …… date …	
303	What are the reasons for late diagnosis? Reasons related with you? multiple answer is possible)	1. Lack of cash money at that time(took time to manage money) 2. Thinking that cancer will not be cured (it's waste of money) 3. Sought traditional faith healer and alternative practices 4. Difficulty to make decision 5. I thought it will relief by itself 6. I thought it is related to breast feeding 7. Lack of awareness about BC symptoms 8. Others (specify)……	
304	Is there time lag between presentation and diagnosis? (above one month) (filled by data collector)	1. Yes 2. No	
305	What are the reasons for late diagnosis? Reasons related with hospital (spontaneously and multiple answer is possible)	1. Waiting time in the reception 2. Waiting time to see a doctor 3. No appropriate Physician 4. Inappropriate diagnosis 5. Others (specify)	
306	Reasons related with health care professionals? multiple answer is possible)	1. Professionals lack of attention 2. professionals at the time being busy 3. unable to examine the patient 4. other specify	
307	Is there time lag between referral and presentation	1. yes 2. No	**If no skip 401**

308	If your answer is yes for the above question what is your reason? Multiple answers is possible.	1. Lack of cash money at that time(took time to manage money) 2. Sought traditional faith healer and alternative practices 3. distance of HF 4. Others (specify)……)	

Part 4-Patient's history on help seeking from health care professional, health awareness and obstetric history.

Code	Question	Alternative	Skip
401	What was the symptom that made you feel that something is wrong?	1. Lump in the breast 2. Discharge 3. Pain or in the breast 4. Change in size of the breast 5. Dimpling of the breast 6. Ulceration of the breast 7. Weight loss 8. Changes in shape of the breast 9. Pulling in of nipple 10. Swelling of the breast 11. Lump under armpit 12. Other Specify	
402	Did you immediately share the problem to other?	1. Yes 2. No	
403	After feeling that something is wrong, to whom you shared the problem?	3. Husband 4. Friends 5. family members 6. Health professional 7. Other (specify)	
404	Where you did first contacted for help?	1. Traditional healers 2. Health extension workers 3. Nowhere /Self medication 4. Health facility 5. Other (specify	

405	Have you previously heard about breast Cancer?	1. Yes 2. No	
406	Have you previously heard about breast cancer early detecting?	1. Yes 2. No	
407	Have you ever done BSE, CBE and mammogram (early detection methods) before the diagnosis of the current disease?	1. Yes 2. No	
408	Was there any familial history of breast cancer?	1. Yes 2. No	
409	When was the first time you have menarche?	1.<=14 2.>=15	
410	Have you ever used any type contraceptive method?	1. Yes 2. No	**If no skip**
411	If your answer is yes for the above question, which type of contraceptive and for how long?	…….. type 1.Pills 2.Dipo 3.Implant	
412	If your answer is yes for the 410 question for how long?	1.<=5years 2.>=6 years	

Thank you very much for your participation!!!

Annex II Amharic version questionnaires

የማርኛቋንቋመጠይቅ

Amharic version information sheet

የ መረጃመስጫ

ጠፍ ይስጥልኝ ስሜ ----------

ይባላልእኔየ ጥናቱንባለቤትተማሪሐረገ ወይንአያሌወዘሮስገኝእርሶምየ አ.አ.ዩንቨርሲቲየነርስየ ድህረምረቃተማሪስ ትሆንየ መመረቅያ ጥናቱንበጠትካንሰርዘግይቶመምጣትእናየ ተያያዙጉዳዮችንበሚልርእስላይእየሰራችትገኛለችየ ምስበስበ ወመረጃለወረዳወየ መንግስትአካላትእና ለ ህብረተሰቡከፍተኛአቅምይሰጣልጥያቄዎቹንለመመለስ ከ 15 እስከ 20 ደቂቃይወስዳል፡፡

አላማው፡ -

የ ጠትካንሰርዘግቶመምጣትእናየ ተያያዙጉዳዮችንለይቶለማወቅለአ.አከተማጥቁርአምባሳሆስፒታልበሚመጡሴቶችላይምን ያህልእንደሆነ ለማወቅነው፡፡

የ ጥናቱልዩ ጥቅም

የ ጥናቱተሳታፊዎችየ ረጅምእና የ አጫጭርዘጥቅምይኖራቸዋል የ ረዝም ጊ ዜ ጥቅመማሞ ጥናቱወጠትለህብረተሰቡእና ለ ጠፍ ተቋመሞ ሚመጣውጥቅምሲሆን የ አጫጭርዘጥቅመደግሞ ከ
ጥያቄዎቹበሓላ ተሳታፊዎቹስለጠትካንሰርአነ ስያለገ ለፃ ይደረግላቸዋል፡፡

የ ጥናቱየ ጎንጉዳት-ጥናቱየ ጎንጉዳትየ ለወም

የ ጥናቱተሳታፊዎችመብት

በ ጥናቱላይያለመሳ ተፍመበትአለኮትመመለስየ ሚይፈልጉትን ጥያቄእን ዲሚልሱአይገ ደዱም፡ ፡በፈለጉትሰአትጥናቱን ማቋረጥይ ችላሉያልገ ባዎትን ማንኛውን ምጥያቄመጠየ ቅይችላሉ፡፡

ሚስጥራዊነ ቱ

የ መላሷቸወሚልሶችሁሉሚስጥራዊነ ታቸወየ ተጠበቀሲሆንየ ጥናቱተሳታፊስምሳ ይወሰድበ መላያቁጥሮችእን ጠቀማለን፡፡

Amharic version consent

ስምምነት

ከላይእንደተጠቀሰወበጥናቱመሳተፍምንምአይነ ትጉዳትአያስከትልም፡ ፡ ስምዎበዚህማጠይቅላይአይፃ ፍም፡ ፡ መረጃወምከተጠቀሰወውጭለማንምተላልፎአይሰጥምመሳስየ ማይፈልጉትንጥያቄባለመመለስበፈለጉትጊዜአቋርጠውመሄድይችላሉ፡ ፡ ሌላውልነ ግሮትየ ምፈልገ ወየ እርሶአወነ ተኛመልሶችለሚደረገ ወጥናትበጣምጠቃሚእንደሆነ እንዲሁምጥያቄዎቹንመልሶለማጠናቀቅ ከ 15 እስከ 20 ደቂቃሊፈጅይችላል፡ ፡ የተሰጦትንመረጃተረድተው በ ጥናቱሊሳተፉስለፈቀዱልኝእጅግበጣምአመሰግናለሁ፡ ፡

ከላይያለወንበመሉበማቀወቋንቋተበቦልኝተረድቼገ ብቶኛልካሉበጥናቱለመሳተፍፍቃደኛኖት?

1. አይደለሁም (አመሰግናለሁ)
2. አዎ(እንቀጥላለን)

ለማኖሮትጥያቄየ ሚጠቀመትአድራሻእናየ ጥናትአድራጊዋመረጃ

የ ጥናትአድራጊዋስም

ስልክቁጥር 0911565505

ኢ-ሜይል haregyeayalew@gmail.com

የ ጠያቂወስምእናፊርማ---

የ ጥናቱወጤት

1 ተጠናቋል 2.ማጠየ ቅአልፈለጉም 3.ተጠያቂወአልተገኘም

4.በከፊልየ ተጠናቀቀ

በሱፐርቫይዘርተረጋግጧል

ስም ---

ቀን ---

ፊርማ ---

ክፍል1.መልስ ሰጪዎችነትማለያእናስነ-ህዝባዊመረጃ

ጥያቄ መለያ	ጥያቄ	የ መልሶችአማራጭ	ዝለል/ እለፍ

101	የተጠየቂውአድራሻየትነው?	1. ገጠር 2. ከተማ	
102	የተጠየቂውብሄር?	1. አማራ 2. ኦሮሞ 3. ጉራጌ 4. ትግራይ 5. ወላይታ 6. ሌሎች (ጥቀስ)	
103	ክልል?	1.አማራ 2.ኦሮሚያ 3.ደቡብ 4.አፋር 5.ትግራይ 6.ጋምቤላ 7.ሌሎች (ጥቀስ)	
104	የተጠየቂውሃይማኖትምንድንነው?	1. ኦርቶዶክስ 2. ካቶሊክ 3. ፕሮቴስታንት 4.መክሊም 5.ሌሎች (ጥቀስ)	
105	የተጠየቂውእድሜስንትነው?	በመሉቁጥር----------	
106	የጋብቻሁኔታ?	1. ያገባ 2. ያላገባ 3. የተፋታ 4. ባልዋየሞተባት	
107	ልጅወልደውያውቃሉ?	1. አዎ 2. የለም	
108	የትምርትደረጃዎስንትነው?	1. ያልተማረ 2. ማንበብእናመጻፍየሚቻል 3. የመጀመርያደረጃእስከ8 4. የሁለተኛደረጃ ከ9-10 5. ዲፕሎማ 6. የመጀመርያዲግሪእናከዛበላይ .	
109	የስራዎሁኔታምድንነው?	1. የቤትእመቤት 2. የግልስራ 3. አርሶአደር 4. የመንግስትሰራተኛ 5. የቀን ሰራተኛ 6. ነጋዴ 7. ተማሪ 8. ሌሎች ካሉ ጥቀስ	
110	የቤተሰብዎየወርገቢምንያህልነው?	ገቢዎበ----------ብር 1. <500 2. 501-1500	

		3. 1501-2000 4. >2000	
111	ወዚህየ ህክምና ተቋምላ መምጣትምን ያህልሰአትይፈጃል?	ሰአት----------ቀን---------- 1. 0-4 ሰአት 2. 5-8 ሰአት 3. 9-12 ሰአት 4. ≥1 ቀን	

ክፍል2-በህክምና ሂደትላይየ ነ በረየ ታካሚሁኔ ታእናየ ታካሚህመም ታወቀበትመን ገ ድ (ካስፈለገ ከካርድየ ሚገኝ)

ጥያቄመለያ	ጥያቄ	የ መልሶችአማራጭ	ዝለል/ እለፍ
201	ወደዚህሆስፒታልከመላኮትበፊትአሁን ባለብዎትበሽታም ልክቶችስንትጊዜወደተለያየ ህክምና ተቋማትሄደዋል?	የ ሄዱበትጊዜ------- 1.1ጠፍ ተቋም 2.2-3ጠፍ ተቋም 3.ከ3 በላይጠፍ ተቋም	
202	ከዚህበፊትየ ሄዱባቸውጠፍ ተቀዋማትምር መራእን ዲያደር ጉምክርሰጥተዎትነ በር?	1. አዎ 2. አይደለም	
203	የ መጀመር ያበዚህየ ህመምክ ሜትየ ሄዱበትየ ጠፍ ተቋምየ ጡ ትምር መራአድር ገ ወሎትነ በር?	1. አዎ 2. አይደለም	

ክፍል 3-መዘ ግየ ትምክን ያቶቸከካርድላይባለሚጃየ ሚገ ፍ

ጥያቄመላ ያ	ጥያቄ	የ መልሶችአማራጭ	ዝለል/እ ለፍ
301	የ ህመም ምልክት ለመጀመር ያጊዜ ባወቁበትና የ ጠፍ ባለሞያ ባማክሩበት መሃ ል 1 ወር በላይ ቆይተዉ ነ በር?	1. አዎአለ 2. አይየ ለም	
302	ወደዚህስፒታልበተላኩበትእና በማጠበትመሃ ልየ ጊዜከፍተትነ በር?	1. አዎአለ 2. አይየ ለም	የ ለምካሉ ወደ 401
303	የ ዘ ገ ዩበትምክን ያትሊገ ልፀልን ይችላሉ (ከእርሶ ጋርይተገ ና ኝ) ከአን ድበላይመልስመመላ ስይቻላል	1.የ ገ ንዘ ብ እጦት 2.ካን ሰርየ ሚይድን መሆኑ ን በማስ ብ 3.የ ባህል እና የእ ነ ትቦ ታዎችስለሄዱ 4. ለወሳኔ በመቸገ ር	

		5.በራሱ የሚድን ስለመሰለኝ 6.ከጠቅማጥባትጋርየተያ ያዘስለመሰለኝ 7.የምልክቶች ግንዛቤ ስለሌለኝ 8. ሌሎችካሉጥቀስ	
304	ከሆስፒታሉጋርየተገናኙምክንያቶች? ከአንድበላይመልስመመላስይቻላል	1.እንግዳመቀበያላይያለ ወረፋ 2.ሃኪምለማግኘትያለወወ ረፋ 3.ተገቢውንሃኪምለማግ ኘት 4.የተሳሳተ ምርመራ 5. ሌሎችካሉጥቀስ	
305	ከጡትባለሞያዎችጋርየተገኛኙምክንያቶች? ከአንድበላይመልስመመላስይቻላል	1.በስራመጠመድ 2.ላታካሚውምርመራአለማ ድረግ 4.ትኩረት አለመስጠት 3. ሌሎችካሉጥቀስ	

ክፍል 4- የታካሚዎች ወደ ህክምና የመሄድ ፍላጎት

ጥያቄመለያ	ጥያቄ	የመልሶችአማራጭ	ዝለል/እለፍ
401	ያሳሰቦትየበሽታምልክትምንድንነው?	1.ይጠት ወስጥአባጭ 2.ከጠትጫፍየሚወጣፈሳሽ 3. የጠትህመም 4.የጠትመጠንመላወጥ 5.የጠትመነርጎድ 6.የጠት መቁሰል 7. ክብደትመቀነስ 8.የጠት ቅርፅመላወጥ 9.የጠጥ ጫፍወደወስጥመጎተት 10.የጠት ሟጠጥ 11.ብብት አካባቢአባጭ 12. ሌላካለግለፅ	
402	ይህህመምሲሰማዎ ትወዲያወኑለሰዎ	1.አዎ 2.የለም	

	ችአማከሩ?		
403	ለመጀመርያጊዜይህየህመምስሜትሲሰማዎትያማከሩት ለማንነበር?	1. ለባለቤትዎ 2. ለጓደኛዎ 3. ለሌላሴትቤተሰብአባል 4. ሌሎችጥቀስ	
404	የጠፍባለሞያከማማከሮበፊትያማከሩትሰውነበር?	1.የባህል ህክምናእናየእምነ ትቤቶች 2. ጠፍኤክስቴንሽን 3.ለማንምአላማከርኩም 4. ሌሎችጥቀስ	
405	ከዚህበፊትስለጡትካንሰርበሽታሰምትወያወቃሉ?	1. አዎ 2. የለም	
406	ከዚህበፊትስለጡትካንሰርቅድመምርመራሰምትወያውቃሉ?	1.አዎ 2.የለም	
407	የጠትካንሰርቅድመማሞርመራአድርገወያወቃሉ?	1.አዎ 2.የለም	
408	በቤተሰቦወስጥየካንሰርበሽታእንደነበረበትየሚታወቅሰውነበር?	1.አዎ 2.የለም	
409	የመጀመሪያ የወር አበባ መቼ ነበር?	እድሜ.. 1. <=13 2. >=14	
410	የወሊድ መከላከያ ተጠቅመዉ ያወቁ?	1.አዎ 2. የለም	
411	መፍስዎ አዎ ከሆነ የትኛዉ አይነት?	……..አይነት 3. ሞርፊ/ 4. በክንድ የሚቀበር 5. በአፍ የሚወሰድ ……..	
412	ለምን ያህል ጊዜ?	1. <=5አመት 2. >=6አመት	

ስለተሳትፎዎ እናመሰግናለን!!!!