Research Article

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Abstract

Background: Breast cancer is the most frequently diagnosed and common cause of cancer death globally and currently highly prevalent among women in Ethiopia. Breast cancer is fatal due to late presentation, limited resources, lack of awareness of breast cancer early detection methods.

Objective: The aim of this study is to assess knowledge, attitude and practice of breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia.

Methods: Institution based cross sectional study design employed for a total sample of 422 female health care providers who were working in the selected 22 public health centers. From these 92.2% (389) were involved in the study. The study was conducted from April 10 to 30, 2017. Data collected using semi structured and pretested self-administered questionnaire after Ethical clearance and approval obtained from Addis Ababa University, Addis Ababa Health Bureau and administrator of each study health centers and consent obtained from those who were meet the inclusion criteria. The collected data entered and analyzed by using SPSS version 20. Descriptive statistics, Bivariate and multivariate logistic regression analyses was undertaken.

Result: Among study participants 365(93.8%) had heard about breast cancer. 119(30.6%) of them were knowledgeable, 287 (73.8%) of the participants had positive attitude towards breast cancer early detection methods. Among those who heard about breast cancer 303 (79.9%) had practice of Breast Self examination, 193 (46.6%) said they had undergone clinical breast examination (CBE) and only 94(24.2%) had mammographic examination. Work experience was significantly associated with Knowledge of Female Health Professionals (FHP) towards breast cancer early detection methods.

Conclusion and recommendation: Majority of nurses had poor knowledge, poor attitude and low practices of breast cancer early detection methods among study participants. In order to solve this issue standard breast cancer early detection methods guide line and trainings needs to be prepared and implemented to increase awareness of health professionals.

Keywords: knowledge, attitude, practice, female health professionals, breast cancer early detection method.

Teshome Habte Wurjine, Neway Bogale, Zeleke Argaw Menji
School of Nursing & Midwifery, Addis Ababa University, Ethiopia

Correspondence: School of Nursing & Midwifery, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia, Email teshomehabte@aau.et.edu

Abbreviations: AAHB, Addis Ababa health bureau; BC, Breast Cancer; BCEDM, breast cancer early detection methods; BSE, Breast Self-Examination; CBE, Clinical Breast Examination; FHP, Female Health Professionals; KAP, Knowledge, Attitude and Practice; FHW, Female Health Workers; LMCs, Low and Middle Income Countries; NCR, National Cancer Registry; NCI, National Cancer Institute

Introduction

Background

Cancer is a group of diseases characterized by the uncontrolled growth and multiply of abnormal cells. If the spread is not controlled, it can result in death.[1] Breast cancer (BC) is an explosion of malignant cells that arises in the breast tissue and the term represents a range of disease, from non-invasive to invasive carcinoma.[2] One of the most commonly diagnosed cancers worldwide was breast cancer which accounts 1.7 million (11.9%) of the total, and it is increasing particularly in developing countries where the majority of cases are diagnosed in late stages.[3,4] 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.[5] Data from the Addis Ababa population based cancer registry showed that breast and cervical cancers were the leading commonly diagnosed cancer comprising

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Copyright:
©2019 Wurjine et al.   202

22.6% and 10.8% respectively of all cases of cancers in Addis Ababa.[6] Breast cancer early detecting is the systematic application of a test in a presumably asymptomatic population. It aims to identify individuals with an abnormality suggestive of cancer. Breast cancer early detection methods include breast self-examination (BSE), clinical breast examination (CBE), and mammography. CBE and mammography require hospital visit and specialized equipment and expertise whereas BSE is an inexpensive tool that can be carried out by women themselves.[7] several studies undertaken to assess the value of mammography for early detection of breast cancer demonstrated a significant reduction in rates of death from breast cancer (about 25%-30%).[8] Knowledge, attitude and practice of healthcare providers about breast cancer and breast cancer early detection play a significant role in awareness creation and information dissemination to the community. Studies have shown that knowledgeable healthcare professionals who have positive attitude educate women and practice CBE more than those who have limited knowledge and negative attitude.[9]

Statement of the problem

The incidence of Breast cancer is increasing in both developed and developing regions. 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 Low Resource Countries late presentation on diagnosis of breast cancer is common, more than 70% of patients present with advanced disease. Delayed presentation has been associated with low levels of community and health professionals' awareness of breast cancer, difficulties in navigating health care systems, ineffectual health care systems, and absence of detection programs.[5] In Ethiopia, the most commonly leading cancers among females were cancers of the breast (33%). Breast cancer was reported to be the first out of the ten top cancers registered in Tikur Anbessa oncology center.[11,12] Breast cancer is become fatal due to late presentation, limited resources, low awareness of breast cancer and its symptoms and strong traditional beliefs that can delay biomedical care.[13]

The aim of this study will be to assess female health professional's knowledge, attitude and practice of breast cancer and breast cancer early detection methods. Because Female healthcare professionals have greater influence on women's positive perception of breast cancer and motivation to practice of early detection methods for early detection of the disease or have important role in prevention of late presentation. In addition, level of knowledge and attitudes of healthcare providers towards breast cancer early detection methods are important determinants of their influence on acceptance of early detection methods by clients in their working area.

Significance of the study

Up to the knowledge of principal investigator while searching different literatures, there were limited number of studies done on knowledge, attitude and practice of breast cancer and breast cancer early detection methods among health professionals 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 detecting program is apparent. Addis Ababa city is selected because it accommodates people with different cultural backgrounds, norms and values and it has a considerable diversity of

socio-demographic status and also according to Addis Ababa cancer registry, breast cancer incidence higher compared to other areas. Female health workers play a great role in alerting the community to the early detection of breast cancer as they are usually the closest contacts with patients.

Therefore the result of this study helps to design appropriate intervention strategies, providing a convenient programmatic approach to address the late diagnosis of the disease and the consecutive complications and to address low level of awareness and practices of breast cancer early detection methods. It also helps for policy makers to target and tailor early detection programs and it is helpful in providing information as baseline for future studies. It is helpful to develop or redesign curriculum to train skilled health professionals on these particular area to decrease morbidity and mortality. If female health workers knowledge, attitude and practice towards breast cancer early detection methods is remarkable, it lets health policy makers strengthen the trend being taken, but if the reverse occurs the finding will serve as a source for health policy planners to design strategy that can reform and fill the gap.

Research questions

1. What are nurses' knowledge and attitudes towards breast cancer early detection methods?

2. What are the nurses' practice regarding breast cancer early detection methods?

3. What are the factors influencing the attitude of nurses regarding breast cancer early detection method?

Objectives of the study

General objective

To assess the knowledge, Attitude and practices towards breast cancer early detection methods among female health professionals in public health centers of Addis Ababa, Ethiopia 2017.

Specific objectives

1. To assess the knowledge of female health professionals towards breast cancer and breast cancer early detection methods in public health centers of Addis Ababa, Ethiopia.

2. To determine the Attitude of female health professionals towards breast cancer and breast cancer early detection methods in public health centers of Addis Ababa, Ethiopia.

3. To determine the practices of female health professionals on breast cancer early detection methods in public health centers of Addis Ababa, Ethiopia.

4. To assess the factors associated with the knowledge, attitude and practice towards breast cancer early detection methods among female health professionals in public health centers of Addis Ababa, Ethiopia.

Methods and materials

Study Setting

The study conducted in the randomly selected health centers in Addis Ababa city administration. Addis Ababa is a capital city of

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Copyright:
©2019 Wurjine et al.   **203**

Ethiopia with total population of 3.55 million as projected for the year 2014.[14] The city has ten sub-cities and 116 Woredas.[15] There are 98 public health centers. Total population of female health professionals working in 98 health centers of Addis Ababa is around 3129.

Study design, period, and area

An institution based cross-sectional study design was employed on female health workers in twenty-two randomly selected public health centers from April 10 to April 30, 2017.

Eligibility criteria

Inclusion criteria

All female health professionals (nurses, midwives and health officers) were working in randomly selected public health centers and willing to participate at the time of data collection were included in the study.

Exclusion criteria

Health professionals who were on annual leave and sickness at the time of data collection were excluded.

Sample size determination

The sample was determined by using simple population proportion formula: considering 95% confidence intervals and 5% marginal error. On a research done to assess of knowledge of breast cancer early detection methods among nurses in one of university hospitals of Addis Ababa 57.8% of the participants was knowledgeable so taking P value to be 0.578. The sample size equals 375. Also on a research done to assess knowledge about breast cancer risk factors, breast Screening method and practice of breast screening among female healthcare professionals working in governmental hospitals of Addis Ababa 75.1% practice BSE, 32.5% practice CBE and 16% practice mammogram. However, an estimate of FHPs having positive attitude was not available for Addis Ababa, it was assumed that 50% of the FHPs had positive attitude and sample size was 384. After adding 10% non-response rate the final sample size was 422.

Sampling technique and sampling procedure

Sampling was focus on governmental health centers. These are preferred because they are the first level of health care provision centers where clients get primarily health care services and are mainly engaged in preventive strategies. There are 98 health centers in all sub cities of Addis Ababa health bureau. Four sub cities were randomly selected from 10 sub cities of Addis Ababa. There are 33 health centers are found in four randomly selected sub cities, from those health centers 22 health centers were selected randomly. Then female health workers were allocated proportionally for each selected health centers. After that the sample was selected by simple random sampling technique.

Data collection tool and procedure

Data was collected using a structured self administered questionnaire which include questions on socio-demographic status, knowledge of risk factors, signs and symptoms, and screening methods, attitude and practices of breast cancer early detection methods. Questioners were prepared in English since the study subjects were health care professionals. Data was collected by ten BSc nurses who were working from different health centers of nurses who were selected from each public health centers. Prior to interview the study participants explained about the purpose of the study, important of their response and their willingness to be participated in this study. And then questionnaire was distributed and to fill the questionnaire. Finally completed questionnaire was returned to the data collectors.

Operational definition

Health Professionals: Health Officers, Nurses, Midwives.

Good knowledge: is defined as knowledge score of greater than or equal to the mean knowledge score.

Poor knowledge: is defined as knowledge score of less than the mean knowledge score.

Positive attitude: is defined as an attitude score of greater than or equal to the mean attitude score.

Negative attitude- is defined as an attitude score of less than the mean attitude score.

Practice: is defined as a practice or use of any of early detection methods like that of BSE, CBE or Mammography.

Data processing and analysis

The collected data was edited to detect error and checked for its completeness manually and then entered in EPI Info version 7.1.1 and analyzed using SPSS version 21 statistical software package. Descriptive statistic including, table, figures, frequency distribution and mean was used to describe the data. Bi-variate logistic regression model analysis was done to see the association between the explanatory and outcome variables. Odds ratio with 95% C.I was used to measure the strength between dependent and independent variables. P value < 0.05 was used to determine level of statistical significance.

Data quality assurance

Data collection tool was prepared after intensive reviewing of relevant literatures from similar studies, Training was given for BSc nurse data collectors and supervisors on the objective of the study, contents of the questionnaire and how to maintain confidentiality and privacy of the study subject. Pretest was conducted to measure the validity and reliability of the methods and materials. In order to address the aforementioned issues the prepared questionnaire was carried out on 5% from the total study participant in one of public health center that was not included in the study and based on the result necessary modification was done. The collected data was checked for completeness before data entry.

Ethical consideration

Ethical clearance and approval obtained from Addis Ababa University, College of health sciences, school of Nursing and midwifery. Permission to conduct the research was obtained from Addis Ababa Health Bureau and each health center involved in the study. After explanation of the objective of the study, consent obtained from those who fulfill the inclusion criteria and agreed to participate. Furthermore, affirmation that they could be free to withdraw consent and discontinue participation without any form of prejudices made. Confidentiality of information and privacy of participants assured for all the information provided.

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Copyright:
©2019 Wurjine et al.

204

Result

Socio demographic characteristics of the study population

From a total of 422 female health workers, 389 participated in the study; make the response rate of 92.2%. The participants were between the age group of 19 - 65 years with a mean age of 29 years and standard deviation of 6.559 years. By age group, over 247 (63.5%) were aged between 19 to 28 years. Most of the participants were single with 201(51.7%) respondents and married with 179 (46%) respondents. 235(60.4%) of the study participants were first degree holders. About 231 (59.4%) of them were nurses, 80 (20.6%) were health officers and 78 (20.1%) midwives. The average work experience of the study participants were 6.6 years with standard deviation of 6.176 years. 181(46.5%) of the participants had worked four and less years, 135 (34.7%) of the participants had worked for five to nine years and twenty seven (6.9%) of the participants had worked for twenty and more years, respectively. Thirty one (8.0%) of them mentioned they had a history of breast problem while twenty eight (7.2%) have reported that they have family history of breast cancer.

Knowledge of female health professionals on breast cancer early detection methods

Among all the respondents 193(49.6%) mentioned breast self examination should be started at twenty years and 133(34.2%) mentioned Mammography should be started at 30 years. 156(40.1%) of the respondents knew that BSE should be done monthly, 21(5.4%) knew CBE should be done three yearly for women younger than forty, 121 (31.1%) mammography yearly. 255(65.6%) of the respondents answered that appropriate time to perform BSE is one to seven days after menses. As shown in (Table 1) below, most of the respondents 181(47.0%) knew that mammography is used for both diagnostic and early detection purpose (Table 1).

Attitude of female health professionals on breast cancer early detection methods

From 287(73.8%) of the participants had positive attitude towards breast cancer early detection methods. One hundred ninety nine (51.2%) and one hundred seventy two (44.2%)of the participants strongly agree and agree that early detection of breast cancer can helps in survival respectively and believe health education can help in early detection of the disease. Among all of the respondents 197 (50.6%) believe they are at risk of breast cancer. 175(45.0%) and 78 (20.1%) of the participants agree and strongly agree respectively in professionals at primary health care level can diagnose breast cancer.

Practice of female health professionals on breast cancer early detection methods

From all of the participants 303 (79.9%) had practice of BSE. From those who had practice breast self examination only 150 (49.5%) have good practice. 193 (49.6%) said they had undergone clinical breast examination by health professionals. From those who practice a clinical breast examination was only 28 (14.5%) having good practices. Only ninety four (24.2%) mentioned that they had mammographic examination and have good practice. Among those who practiced BSE at least once in life time, 110(36.3%) started practicing at the age of 21-30. The commonly mentioned reason for not practicing BSE was don't having any symptom 29(33.7%). The commonly mentioned

reason for not practicing CBE was not having symptom 113(57.7%). Among those who do not practice mammography not having symptom was mentioned by 173 (58.6%) of the participants. Most of the health professionals 302(77.6%) advised their clients about BSE. While 239(61.4%) performed CBE and 192(49.4%) ordered mammography to their clients. The commonest reason for not performing CBE and ordering mammography to clients was not having history of breast cancer 65 (43.3) and 60 (30.5%) respectively.

Table I Knowledge of respondents on breast cancer early detection methods at public health centers of Addis Ababa, Ethiopia, 2017

Variable	Frequency	Percent (%)
Recommended age to start breast self examination		
at 20 years	193	49.6
at 40 years	32	8.2
after menarche	137	35.2
after menopause	9	2.3
Other Specify	1	0.3
I don't know	17	4.4
Frequency of breast self examination		
once in a month	156	40.1
once in a week	107	27.5
once in three months	73	18.8
Other Specify	8	2.1
I don't know	45	11.6
Appropriate time for performing breast self examination		
During menses	7	1.8
1-7 days before menses	35	9
1-7 days after menses	255	65.6
at any time	41	10.5
Other Specify	4	1
I don't know	47	12.1
Frequency of clinical breast examination		
Monthly	77	19.8
Once in a year	138	35.5
Every three months	75	19.3
Once in three years	21	5.4
Other Specify	2	0.5
I don't know	76	19.5
Recommended age to start mammography examination		
30 years	133	34.2
35 years	71	18.3
40 years	64	16.5
45 years	52	13.4
Other Specify	1	0.3
I don't know	68	17.5

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Copyright:
©2019 Wurjine et al. **205**

Table Continued

Variable	Frequency	Percent (%)
Frequency of mammography		
once in a year	121	31.1
every six months	91	23.4
once in two years	41	10.5
once in three years	41	10.5
Other Specify	1	0.3
I don't know	94	24.2
Use of mammography		
For diagnostic purpose	138	35.5
For screening purpose	52	13.4
For both	183	47
I don't know	4.1	4.1

Knowledge attitude and practice of female health professionals on breast self examination used for breast cancer early detection

This study reveal that Knowledge, attitude and practice of healthcare providers about breast cancer and breast cancer early detection using breast self examination method is plays a significant role in awareness creation as shown in figure1below the Level of knowledge, attitude and practice towards breast cancer early detection methods by using BSE among female health professionals at public health centers utilization reveal that only 34% of the health care professionals having good Knowledge of BSE and only 15% of health professionals were performed good practice of breast self examination (Figure 1).

Factors associated with knowledge, attitude and practice of breast cancer early detection methods

Cross tabulation and logistic regression analysis was carried out to determine the association between independent variables and the knowledge, attitude and practice of breast cancer early detection methods among the study participants. Age, work experience and marital status were significantly associated with knowledge of study participants on binary logistic regression while work experience remained significant in multivariate logistic regression. In a binary logistic regression analysis it was found that FHP who are between 29-38 years were 0.31 times less likely to know about breast cancer early detection methods compared to those 49 and more years of age, [COR=0.31; 95%CI (0.11-0.87)]. FHP who worked for 10-14 years were 5.86 times more likely to know about breast cancer and its early detection methods compared to those who worked for 20 and mere years , [COR=5.86; 95%CI (1.72-19.99)]. Female health professionals who are married were 1.25 times more likely to know about breast cancer and its early detection methods compared to those who are widowed, [COR=1.25; 95%CI (1.89-11.23)]. In a multivariate logistic regression analysis as shown in the(table 2) below those who are worked for 10-14 years were 22.55 times more likely to know about breast cancer early detection methods compared to those who worked 20 and more years, [AOR= 22.55; 95%CI (1.80-281.77)] (Table 2).

Factors like age, level of education, work experience, marital status, and knowledge are significantly associated with attitude

towards breast cancer early detection methods on binary logistic regression while age, work experience, marital status and knowledge remain significantly associated on multivariate logistic regression. On binary logistic regression female health professionals aged 39-48 were 0.43 times less likely to have positive attitude towards breast cancer early detection methods than those in the age group between 19 and 28, [COR=0.43; 95%CI (0.20-0.90)]. Those FHP who have work experience of 15 to 19 years were 0.24 times less likely to have positive attitude towards breast cancer early detection methods than those who have four and less years work experience, [COR=0.24; 95%CI (0.08-0.69)]. While those female health professionals who are married were 0.43 times less likely to have positive attitude than those who are single, [COR=0.43; 95%CI (0.25-0.76)]. Female health professionals who have good knowledge were 0.36 times less likely to have positive attitude than those having poor knowledge, [COR=0.36; 95%CI (0.20-0.64)]. In multivariate logistic regression female health professionals who are aged 39-48 were 0.02 times less likely to have positive attitude than those in age group 19-28 years, [AOR=0.02; 95%CI (0.002-0.36)]. Those FHP who have work experience of more than 19 years are 71 times more likely to have positive attitude towards breast cancer early detection methods than those who have less than four years work experience, [AOR=71.47; 95%CI (3.80-1343.4)]. Those female health professionals who are married were 0.43 times less likely to have positive attitude towards breast cancer early detection methods than those who are single, [AOR=0.43; 95%CI (0.25-0.76)]. Table 3 below shows that female health professionals having good knowledge were 0.36 times less likely to have positive attitude than those having poor knowledge, [AOR=0.36; 95%CI (0.19-0.69)] (Table 3).

Association of (socio-demographic factors, knowledge and attitude) with practice of breast cancer early detection methods

From the factors profession and marital status were significantly associated with practice of BSE on binary logistic regression while none of the factors associated with practice of BSE on multivariate logistic regression. On binary logistic regression female health professionals who are health officers were also 2.62 times more likely practice BSE compared to those who are Midwifes, [COR=2.62; 95%CI (1.17-5.84)]. While those female health professionals who are married were 1.75 more likely practice BSE than those who are single, [COR=1.75; 95%CI (1.06-2.88)]. Factors like profession, level of education, marital status and family history of breast problem were significantly associated with practice of CBE on binary logistic regression while age, level of education, marital status and family history of breast problem were significantly associated with practice of CBE on multivariate logistic regression. On binary logistic regression female health professionals who are nurses were 2.26 times more likely practice CBE compared to those who are Midwifes, [COR=2.26; 95%CI (1.32-3.86)]. Female health professionals who are degree holders were 1.64 times more likely practice CBE compared to those who are diploma holders, [COR=1.64; 95%CI (1.08-2.48)]. While those female health professionals who are married were 2.2 times more likely practice BSE than those who are single, [COR=2.20; 95%CI (1.46-3.32)]. female health professionals who have family history of breast problem were 0.24 times less likely practice CBE compared to those who haven't family history of breast problem, [COR=0.24; 95%CI (0.09-0.62)]. In multivariate logistic regression female health professionals who were nurses 2.26 times

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Copyright:
©2019 Wurjine et al.   **206**

more likely practice CBE than those who were midwifes, [AOR=2.26; 95%CI (1.32-3.86)]. also female health professionals who are aged 29-38 were 0.36 times less likely practice CBE than those 49 and above years of age, [AOR=0.36; 95%CI (0.002-0.54)]. Those FHP who are degree holders were 1.8 times more likely practice CBE than those diploma holders, [AOR=1.80; 95%CI (1.06-3.07)]. Those

female health professionals who are married were 3.39 times more likely practice CBE than those who are single, [AOR=3.39; 95%CI (1.97-5.80)]. Female health professionals who have family history of breast problem were 0.19 times less likely practice CBE than those who haven't family history of breast problem, [AOR=0.19; 95%CI (0.05-0.72)].

Table 2 Association between socio-demographic factors with Knowledge of breast cancer early detection methods of female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Variable	Mean knowledge breast cancer early detection methods		COR (95%CI)	AOR (95%CI)
	Good knowledge	**Poor knowledge**		
Age in years				
19-28	77	170	0.81(0.49-1.33)	1.19(0.59-2.39)
29-38	35	63	0.31(0.11-0.87)	2.10(0.17-26.0)
39-48	5	29	0.45(0.09-2.23)	2.40(0.10-55.93)
>=49	2	8	1	1
Profession				
Health officer	25	55	1.08(0.55-2.14)	1.03(0.54-1.96)
Nurse Midwife	71	160	1.06(0.60-1.86)	0.80(0.35-1.82)
	23	55	1	1
Level of education				
MSc	3	0	1.82(0.50-3.76)	1.02(0.53-195)
Degree	76	159	1.32(0.84-2.08)	1.01(0.52-1.94)
Diploma	40	111	1	1
Work experience				
0-4	60	121	2.18(0.78-6.04)	4.54(0.29-70.08)
05-Sep	38	97	1.72(0.6-4.88)	3.31(0.23-46.80)
Oct-14	16	12	5.86(1.72-19.99)	22.55(1.8-281.77)
15-19	0	18	1.99(0.45-3.78)	1.02(0.53-1.95)
>=20	5	22	1	1
Marital status				
Single	67	134	1.2 (0.11-7.12)	0.71(0.41-1.24)
Married	51	128	1.25(1.89-11.23)	3.32(0.15-72.72)
Divorced	1	2	0.34 (0.81-1.94)	1.00(0.51-1.93)
Widowed	0	6	1	1
Self history of breast problem				
Yes				
No	112	246	0.64(0.26-1.53)	1.26(0.50-3.20)
	7	24	1	1
Family history of breast problem				
Yes				
No	114	247	2.12(0.78-5.72)	1.30(0.42-3.98)
	5	23	1	1

Citation: Wurjine TH, Bogale N, Menji ZA. Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017. *MOJ Womens Health.* 2019;8(3):201–209. DOI: 10.15406/mojwh.2019.08.00237

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Copyright:
©2019 Wurjine et al.   **207**

Table 3 Association between socio-demographic factors and knowledge with Attitude of breast cancer early detection of female health professionals at public health centers, Addis Ababa, Ethiopia 2017

Variable	Attitude towards breast cancer early detection methods		COR (95%CI)	AOR (95%CI)
	Positive attitude	**Negative attitude**		
Age				
19-28	184	63	1	1
29-38	77	21	1.25(0.71-2.20)	1.37(0.64-2.93)
39-48	19	15	0.43(0.20-0.90)	0.02(0.002-0.36)
≥49	7	3	0.79(0.20-3.18)	0.02(0.001-0.78)
Profession				
Health officer	64	16	1.67(0.80-3.48)	1.30(0.53-3.20)
Nurse	168	63	1.11(0.63-1.96)	0.82(0.42-1.59)
Midwife	55	23	1	1
Level of education				
MSc	3	0	0.77(0.54-5.67)	1.01(0.52-1.93)
Degree	182	53	1.65(1.04-2.61)	1.33(0.73-2.39)
Diploma	102	49	1	1
Work experience				
0-4	137	44	1	1
05-Sep	98	37	1.02(0.63-1.64)	0.90(0.45-1.80)
Oct-14	20	8	1.04(0.44-2.45)	1.79(0.36-8.76)
15-19	11	7	0.24(0.08-0.69)	11.76(0.77-178.8)
≥20	21	6	0.62(0.27-1.40)	71.47(3.80-1343.4)
Marital status				
Single	161	40	1	1
Married	122	57	0.53(0.33-0.84)	0.43(0.25-0.76)
Divorced	1	2	0.12(0.01-1.40)	0.05(0.003-1.06)
Widowed	3	3	0.24(0.04-1.27)	0.61(0.02-14.98)
Self history of breast problem				
Yes				
No	266	92	1.37(0.62-3.03)	1.39(0.58-3.31)
	21	10	1	1
Family history of breast problem				
Yes				
No	268	93	1.36(0.59-3.12)	0.79(0.26-2.39)
	19	9	1	1
Knowledge				
Good	102	17	0.36(0.20-0.64)	0.36(0.19-0.69)
Poor	185	85	1	

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017
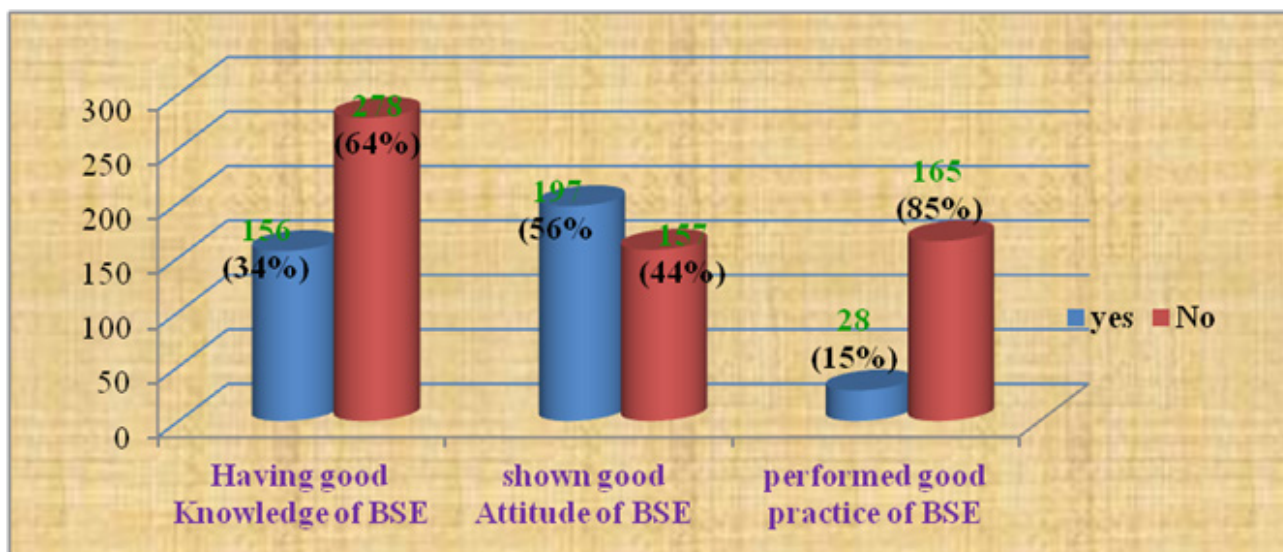
Copyright:
©2019 Wurjine et al.   **208**

Figure 1 Level of knowledge, attitude and practice towards breast cancer early detection methods by using BSE among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017.

Discussion

The current study demonstrated knowledge, attitude and practice towards breast cancer early detection methods with their associated factors among female health worker. The overall good knowledge score of the respondents was 30.6%. The finding is very much lower than study finding in Saudi Arabia which reported 67%.[16] This difference might be due to cultural and socio-economic deference among these populations. In this study from all the respondents 87.7% knew BSE as early detection method, 58.4% knew CBE and only 50.1% knew Mammography as a screening method for breast cancer. This study finding is lesser than a study done in government hospitals of Addis Ababa revealed that among female health professionals 77.6% female health professionals were aware of BSE as early detection method. Mammography was mentioned as early detection method by 81.4% and the least mentioned early detection method by the participants was CBE which was known by 71.4% respondents. This difference might be due to the fact that professionals working in hospitals have more exposure to breast cancer cases and cases are referred to hospitals for further diagnosis and treatment and also experts that have more experience and knowledge are available for consultation.[15,17] In this study two hundred eighty seven (73.8%) of female health professionals had positive attitude towards breast cancer early detection methods. 175(45.0%) and 78 (20.1%) of the study participants agree and strongly agree in professionals at primary health care level can diagnose breast cancer respectively. This is slightly less than the study in Riyadh, where about 85% believe that BC can be diagnosed by primary health care physician. This difference might be due to the fact that in Riyadh primary health care facilities could have more access and equipment to diagnose and treat breast cancer at primary health care level.[18] From all of the female health professionals 303 (79.9%) mentioned that they have practice of breast self examination and only 150(49.5%) do it monthly, 193 (49.6%) said they had undergone clinical breast examination and only 94(24.2%) mentioned that they had mammographic examination. Among those who practiced BSE at least once in life time, 110(36.3%) started practicing at the age of 21-30. This is a bit less than the study

in Turkey, where 81.3 % of the group reported performing BSE, but only 27.3 % reported doing so monthly or once per menstrual cycle. The rate of having a mammography at least once was 10.1% and rate of having a CBE among the health professionals was 24.8 %.[19] The difference might be due to the absence of feeling of breast problems.

Limitations of the study

The study was good if it is accompanied with qualitative part to obtain in-depth information.

Conclusion and recommendations

The current study showed that the knowledge of breast cancer early detection methods was poor among Female Health Professionals (FHP) working in primary health centers of Addis Ababa. Work experience was significantly associated with Knowledge of the FHP about breast cancer early detection methods.

Among the study participant only small proportions are actually practicing regularly as per the standard. The most common reasons identified in this study for not practice of breast cancer early detection methods were knowledge gaps. Marital status were significantly associated with practice of BSE . Age, level of education, marital status and family history of breast problem were significantly associated with practice of CBE. Profession, work experience, marital status and family history of breast problem were significantly associated with practice of mammography examination. Therefore, conduct special trainings as part of capacity building for female health worker to enhance their knowledge, attitude and practice is highly recommended. For the stated action should be taken by Ministry of Health, Stakeholders and the respective health care organizations etc. Female health care providers should also read more about breast cancer early detection methods and bring up to date themselves regularly. A standard early detection methods guideline also needs to be prepared and implemented in all health facilities. Generally collaboration is needed between different sectors in order to make breast cancer early detecting culture so as to reduce morbidity and mortality related to

Assessment of knowledge, attitude and practice towards breast cancer early detection methods among female health professionals at public health centers of Addis Ababa, Ethiopia, 2017

Copyright:
©2019 Wurjine et al. **209**

breast cancer among women. Furthermore, researchers should carry out further studies at different levels.

Ethics approval and consent to participants

The ethical clearance obtained from Addis Ababa University Institution Research Board. Letter submitted to Addis Ababa health bureau, to the selected health centers and permission obtained from the aforementioned Health care administrators. Prior to interview all participants recruited to the study were receive informed consent about the study. Respondents insured about the confidentiality of information obtained.

Authors' contributions

All authors listed, have made substantial, direct and intellectual contribution to the work, and approved it for publication.

Acknowledgment

Firstly, we would like to say thanks to AAU, College of health Science, School of Nursing and midwifery, Department of Nursing and Tikur Anbessa Specialized Hospital for providing fund to conduct this thesis.

Finally, our deepest gratitude goes to study participants, data collectors, supervisors for their commitment and unreserved efforts made during data collection period.

Conflicts of interest

The author declares there are no conflicts of interest.

References

1. Mandal A IN, Scott J, Okafor B, et al. African Americans and Cancer: A Minority Health Advocacy. *J Bioproces Biotech.* 2014;4:e117.

2. AC Society. *Breast Cancer Facts & Figures*. Atlanta. 2017.

3. International Agency for Research on cancer. Latest world cancer statistics Global cancer burden: WHO: Press release N 223; 2013. 3 p.

4. Gebrehiwot H HT, Gidey G. Knowledge and Attitude towards Breast Cancer among Mekelle University Female Regular Undergraduate Students. *Tigray Region, Ethiopia. SJAMS*. 2013;2(1):766–772.

5. Globocan (IARC). *Estimated breast cancer incidence and mortality in Ethiopia*. International agency for research on cancer. 2012. 25 p.

6. Saghir NS, Adebamowo CA, Anderson BO, et al. Breast cancer management in low resource countries (LRCs): Consensus statement from the Breast Health Global Initiative. *The Breast*. 2011;20(2):S3–S11.

7. Nasiru A Ibrahim, Olumuyiwa O Odusanya. Knowledge of risk factors, beliefs and practices of female healthcare professionals towards breast cancer in a tertiary institution in Lagos, Nigeria. *BMC Cancer*. 2009;9(2):76–79.

8. Olumuyiwa O, Odusanya OOT. Breast Cancer Knowledge, Attitudes and Practice among Nurses, Acta Oncologica. Lagos, Nigeria. *Acta Oncol*. 2001;40(7):844–848.

9. Addis Ababa city cancer registry in Addis Ababa university blh, radiotherapy center. Breast cancer incidence and death rate in Ethiopia GLOBOCAN 2012.

10. Dye Timothy D, Solomon Bogale, Claire Hobden, et al. Experience of Initial Symptoms of Breast Cancer and Triggers for Action in Ethiopia. *International Journal of Breast Cancer*. 2012. 5 p.

11. Seife Teferi Dellie TMN, Meaza Demissie, Durgaprasada rao. Knowledge about Breast Cancer Risk–Factors, Breast Screening Method and Practice of Breast Screening Among Female Healthcare Professionals Working In Governmental Hospitals. Addis Ababa, Ethiopia. *IOSR Journal of Pharmacy and Biological Sciences (IOSRJPBS)*. 2012;2(1):5–12.

12. Kumar S, Imam A, Manzoor N, et al. Knowledge, attitude and preventive practices for breast cancer among health care professionals at Aga Khan Hospital Karachi. *Journal of the Pakistan Medical Association*. 2009;59(7):474–478.

13. Milosevic M. Breast cancer early detection methods. *AJRC*. 2013;1(11):395–404.

14. Eguvbe AO, Akpede N, Arua NE. Knowledge of Breast Cancer and Need for its Screening among Female Healthcare Workers in Oshimili South Local Government Council Area of Delta Stat. *Nigeria AFRIMEDIC Journal*. 2014;5(1):60–64.

15. Augustin Balekouzou. Assessment of Breast Cancer Knowledge among Health Workers in Bangui. *Central African Republic Asian Pacific Journal of Cancer Prevention*. 2016;17(8):3769–3776.

16. *Central Statistics Agency of Ethiopia*. 2007.

17. MS M. Breast cancer. In: Kramer BS, Gohagan JK, Prorok PC, eds. *Cancer Screening: Theory and Practice*. New York: M. Dekker; 2001. pp. 143–170.

18. Samia Ghanem MG, Siham Elkhoyaali, Mohamed Mesmoudi, et al. Knowledge of risk factors, beliefs and practices of female healthcare professionals towards breast cancer, morocco. *panafrican medical journal*. 2009;10:21–55.

19. Selamawit W. K*nowledge, Attitude and Practice towards Breast cancer and Breast cancer screening among female Health Professionals in Addis Ababa*. 2016. 258 p.