# **Original Research Article**

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# Health seeking behavior among women diagnosed with breast cancer attending Kisii teaching and referral hospital in Kisii County

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# ABSTRACT

**Background:** Most women with breast cancer are diagnosed at an advanced stage of the disease leading to poor treatment outcomes. Therefore, this study aimed at determining the socio-economic and cultural factors that influence health seeking behavior among women diagnosed with breast cancer in Kisii County.

**Methods:** 96 breast cancer women who were attending the Kisii Teaching and Referral hospital in Kisii County were purposively sampled. A descriptive study design was used. Structured and open-ended questionnaires were the data collection tools. Collected data was analyzed using Chi square and correlation analysis through SPSS.

**Results:** 84.4% of the respondents were rural dwellers, 56.3% of the respondents were Protestants while 69.79% of the respondents were married. Majority (53%) of the respondents had attained a secondary level of education, 54.2% were self-employed while 80.2% of the respondents had a monthly income of KShs 10,000. There was no association between breast cancer treatment and an individual's level of income ( $\chi^2$ =2.773, p=0.597). 2.1% of the respondents agreed that breast cancer is a curse. Witchcraft was not associated with health seeking behaviour ( $\chi^2$ =9.907, p=0.624). 67.7% of the respondents agreed that breast cancer is a killer disease that metastases fast within the body.

**Conclusions:** The respondent's education, employment status and level of income are the socio-economic factors that determine health seeking behaviour among women diagnosed with breast cancer in Kisii County. Majority of the victims use traditional medicine as a treatment option for breast cancer because it is cheaper than modern cancer therapy.

Keywords: Health seeking behavior, Breast cancer, Cancer diagnosis, Late presentation

# **INTRODUCTION**

Cancer incidence rates are on the rise with the current cancer burden being estimated at 18.1 million new cases and 9.6 million deaths.<sup>1</sup> In Kenya, cancer is the third highest cause of mortality after infectious and cardiovascular diseases.<sup>2</sup> Breast cancer is the most prevalent form of cancer among women, impacting 2.1 million women globally. In 2018, 627,000 women died

from breast cancer accounting for approximately 15% of all cancer deaths among women globally.<sup>3</sup> Breast cancer mortality is high in Africa because patients often present to clinics at advanced stages of the disease.<sup>4</sup> This might be due to a number of factors key among them being delayed presentation of the symptomatic disease.<sup>5</sup> Breast cancer is progressively becoming a prominent health threat in both high and low income countries.<sup>6</sup> 80-90% of the presented breast cancer cases are at stage 3 and 4 of the ailment, when treatment cost is high with low survival chances.<sup>7</sup> These figures might not be a true representation of the cases in the country due to the perceived low level of awareness, cost of transport and treatment, limited access to screening and treatment services, and the lack of a national cancer registry to enumerate cases.<sup>8</sup> Therefore, this study sought to understand the socio-economic and cultural factors that influence health seeking behavior among women diagnosed with breast cancer in Kisii County.

#### **METHODS**

# Study site and design

The study was carried out between June 2021 and December 2021, in Kisii teaching and referral hospital, Kisii County where women who had been diagnosed with breast cancer were the target population. A descriptive study design was used.

#### Study variables

The dependent variable was health seeking behavior while the independent variables were the health seeking behavior determinants among women suffering from breast cancer.

### Inclusion criteria and exclusion criteria

The study participants who were recruited into the study were women who had been diagnosed with breast cancer, those who consented to participate in the study and those who were attending the Kisii teaching and referral hospital (KTRH) during the study period. Those who were excluded from the study were women who didn't consent to participate, those who were attending other hospitals other than KTRH and those who were negative for breast cancer.

#### Sample size determination

The Fischer's formula was used to calculate the sample size of breast cancer positive women:

$$n = \frac{Z^2 P (I-P)}{I^2}$$

Where: n = Sample size (where population >10,000), Z = normal deviation at 95%, (value of Z at 95% is 1.96), P = Proportion of the population with the desired characteristic, I = Degree of precision; which was taken to be 10%. Since the proportion of the population with breast cancer is not known, then 50% will be used i.e. in the present study 96 breast cancer women were included.

# Sampling technique

Patients were purposively selected to participate in the study based on their scheduled visit to the hospital for review or checkup. Each consenting patient was interviewed for 30-45 minutes and this procedure was repeated until all the 96 respondents were interviewed.

#### Data collection tools

This study used a questionnaire and interviews collecting both quantitative and qualitative data from the patients. The questionnaire comprised of structured and openended questions.

#### Pilot study

A pilot study was carried out to test the first version of the questionnaire and provide feedback regarding its clarity and ease of administration. Then, through an iterative process of item generation and reduction, the questionnaire's clinical sensibility was determined by administering the questionnaire to 30 respondents. After this, the questionnaire was revised based on the feedback provided.

#### Validity

The data collection tools were subjected to expert scrutiny to ensure that the questionnaires were valid for the test. The tools were run through the pilot data to ensure that they actually represented the variables they were intended to represent.

#### Reliability

The results from the pilot study were used to confirm whether test instruments provided valid and reliable results.

# Data collection, storage, management and data analysis

For data collection, structured and open-ended questionnaires were administered to the breast cancer positive patients. Collected data was coded, sorted and stored in a flash disc with secure passwords known only to the investigator. Collected data was analyzed using descriptive statistics, Chi square and correlation analysis through the aid of a Statistical Package for Social Sciences (SPSS) version 21. Chi square and correlation analysis were used in determining the association between breast cancer treatment uptake and the social, cultural and economic factors and treatment.

# RESULTS

#### Residence and religion of the respondents

84.4% of the respondents came from rural areas, 15.6% were urban dwellers, majority (56.3%) of the respondents were Protestants while 43.7% were Catholics by faith (Table 1).

# Table 1: Frequency distribution of the respondents'residence and religion.

Characteristics of the patient	Ν	%
Type of area of residence		
Rural	81	84.4
Urban	15	15.6
Type of religion		
Catholic	42	43.8
Protestant	54	56.3

#### Age distribution of the participants

34.8% of the respondents were aged 20-29 years while those who were between 60-70 years old were (6.25%) (Figure 1).



# Figure 1: The bar graph showing the distribution of age of the participants.

#### Marital status of the respondents

More than half (69.79%) of the respondents were married, 27.08% were single while 3.13% were widowed (Figure 2).



Figure 2: Marital status of the respondents.

#### Socio-economic factors influencing health seeking behavior among women diagnosed with breast cancer in Kisii County

3.13% of the respondents had no formal education while 26%, 53% and 15% of the respondents had attained a

primary, secondary and tertiary level of education respectfully. Of the 53% (N=53) with a secondary level of education, 88.7% (N=47) said that they are ready to go for medication and treatment for breast cancer while 7.5% said they could not seek breast cancer treatment. On the contrary, 3.8% of the respondents with a secondary level of education were not sure of going for the treatment. This shows that an individual's level of education is not a determinant of health seeking behavior among women suffering from breast cancer ( $\chi^2$ =4.115, P=0.661)

Employment status was perceived to be a factor that influences health seeking behavior for breast cancer patients. Out of the 96 respondents, 26 (27%) were unemployed with 96.2% of this proportion being willing to seek breast cancer treatment while 3.8% were not sure of whether to seek treatment or not. The proportion of self-employed respondents was 54.2% and out of this, 46 (88.5%) indicated that they could seek health support for breast cancer treatment while those who said that they won't go for treatment were 5.8%. 17 (17.7%) were students with 88.2% being willing to seek health services for breast cancer. Chi-square test showed that employment status is not a determinant of health seeking behavior among women suffering from breast cancer in Kisii County ( $\chi^{2=1.892}$ , P=0.929). 80.2% of the respondents had an average income of KShs10,000 while 1% of the respondents had a monthly income of between 60,000 and 80,000. Of those with a monthly income of KShs 10,000, 92.2% were willing to seek medication for breast cancer while 5.2% were not ready to seek healthcare services for breast cancer. There was no association between breast cancer treatment and an individual's level of income ( $\chi^2$ =2.773, P=0.597) (Table 2).

#### Role of cultural factors and breast cancer health seeking behavior of women diagnosed with breast cancer

Breast cancer is a curse: 59.4% (n=57) of the respondents disagreed that breast cancer is a curse while 2.1% of the respondents agreed that breast cancer is a curse. Of the respondents who disagreed that breast cancer is a curse, 64.9% reported that they sought treatment immediately after knowing that they were breast cancer positive while 24.6% of the respondents sought treatment 6 months after discovering that they had breast cancer. Among those who strongly disagreed that breast cancer is a curse, 78.3% of them sought treatment immediately while 13.0% sought treatment 6 months later (Table 3). There is no association between the belief that cancer is a curse and health seeking behavior ( $\chi^2$ =6.574, P=0.681). Breast cancer is caused by witchcraft; majority (52%) of the respondents didn't belief that breast cancer is caused by witchcraft. 30.2% of the respondents strongly disagreed while 10.4% were neutral to the belief that breast cancer is caused by witchcraft. 6.3% of the respondents agreed that breast cancer is caused by witchcraft. Among those who disagreed that breast cancer is caused by witchcraft,

74% revealed that they sought breast cancer treatment immediately while 22% started treatment after 6 months (Table 4). Evidence showed that witchcraft is not associated with health seeking behaviors among women diagnosed with breast cancer in Kisii County ( $\chi^2$ =9.907, P=0.624).

#### Table 2: Cross tabulation and test for socio-economic factors and breast cancer health seeking behavior.

Variables	Category	Do you int next one y	end to take ear?	breast cancer treatment in the	Chi-sq	uare Test
		Yes	No	Not sure	$\chi^2$	P value
		N (%)	N (%)	N (%)		
	None	3 (100.0)	0 (0.0)	0 (0.0)		
Level of education	Primary	23 (92.0)	0 (0.0)	2 (8.0)	4.115	0.661
	Secondary	47 (88.7)	4 (7.5)	2 (3.8)		
	Tertiary	14 (93.3)	0 (0.0)	1 (6.7)		
	Unemployed	25 (96.2)	0 (0.0)	1 (3.8)		
Employmont	Self-employed	46 (88.5)	3 (5.8)	3 (5.8)		
status	Student	15 (88.2)	1 (5.9)	1 (5.9)	1.892	0.929
status	Government employee	1 (100.0)	0 (0.0)	0 (0.0)		
	Retired	0 (0.0)	0 (0.0)	0 (0.0)		
	0-10,000	71 (92.2)	2 (2.6)	4 (5.2)		
Income	10,001-30,000	15 (83.3)	2 (11.1)	1 (5.6)		
	30,001-60,000	0 (0.0)	0 (0.0)	0 (0.0)	2.773	0.597
DIALNEL	60,001-80,000	1 (100.0)	0 (0.0)	0 (0.0)		
	80,001 and above	0 (0.0)	0 (0.0)	0 (0.0)		

# Table 3: Association between the belief that breast cancer is a curse and health seeking behavior among breast cancer patients.

		Start of treatment	Chi-square Test				
Variables	Category	Immediately	After 6 months	After one year	Never	$\chi^2$	P value
	Strongly disagree	18 (78.3)	3 (13.0)	1 (4.3)	1 (4.3)		
Breast cancer	Disagree	37 (64.9)	14 (24.6)	6 (10.5)	0 (0.0)	6.574	0.681
is a curse	Neutral	9 (64.3)	4 (28.6)	1 (7.1)	0 (0.0)		
	Agree	1 (50.0)	1 (50.0)	0 (0.0)	0 (0.0)		
	Strongly agree	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)		

#### Table 4: Association between witchcraft and health Seeking Behavior among breast cancer patients.

	Category	Start of treatment	Chi-square Test				
Variables		Immediately	After 6 months	After one year	Never	$\chi^2$	P value
Breast cancer is caused by witchcraft	Strongly disagree	18 (62.1)	6 (20.7)	4 (13.8)	1 (3.4)	9.907	0.624
	Disagree	37 (74.0)	11 (22.0)	2 (4.0)	0 (0.0)		
	Neutral	6 (60.0)	2 (20.0)	2 (20.0)	0 (0.0)		
	Agree	3 (50.0)	3 (50.0)	0 (0.0)	0 (0.0)		
	Strongly agree	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)		

Cancer is a deadly disease that metastasizes; majority of the respondents (67.7%) agreed that breast cancer is a killer disease that metastasizes within the body once a person is infected. As a consequence, 20% of these respondents chose to seek treatment immediately after realizing that they had breast cancer. However, 9.2% of these respondents went for breast cancer treatment after 6 months of knowing that they have breast cancer (Table 5). Chi-square test of association showed that there is no association between a belief that cancer is a deadly disease and onset of treatment ( $\chi^2$ =7.64, P=0.815).

		Start of treatme	Chi-square Test				
Variables	Category	Immediately	After 6 months	After one year	Never	$\chi^2$	P value
Breast cancer	Strongly disagree	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)		
is a deadly	Disagree	3 (75.0)	1 (25.0)	0 (0.0)	0 (0.0)	7614	0.915
spreads and	Neutral	7 (46.7)	7 (46.7)	1 (6.7)	0 (0.0)	7.014	0.815
kills verv fast	Agree	45 (69.2)	13 (20.0)	6 (9.2)	1 (1.5)		
KIIIS VEI y läst	Strongly agree	9 (81.8)	1 (9.1)	1 (9.1)	0 (0.0)	-	

### Table 5: Belief that cancer is a deadly disease that spreads and kills very fast.

# Table 6: Association between herbal remedies and onset of breast cancer treatment.

		Start of treatment	Chi-square Test				
Variables	Category	Immediately	After 6 months	After one year	Never	$\chi^2$	P value
Herbal	Strongly disagree	8 (66.7)	3 (25.0)	1 (8.3)	0 (0.0)		0.816
medicine can	Disagree	44 (69.8)	12 (19.0)	6 (9.5)	1 (1.6)	5 210	
cure breast	Neutral	11 (68.8)	4 (25.0)	1 (6.3)	0 (0.0)	5.210	
Calleel	Agree	2 (40.0)	3 (60.0)	0 (0.0)	0 (0.0)		
	Strongly agree	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)		

Table 7: Belief that surgery to breast cancer patient leads to the cancer spreading fast.

		Start of treatment	Chi-square Test				
Variables	Category	Immediately	After 6 months	After one year	Never	$\chi^2$	P value
If you conduct	Strongly disagree	6 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)		
surgery to	Disagree	16 (72.7)	4 (18.2)	2 (9.1)	0 (0.0)	E E 2 9	0 795
preast cancer	Neutral	38 (61.3)	17 (27.4)	6 (9.7)	1 (1.6)	3.338	0.785
spread faster	Agree	5 (83.3)	1 (16.7)	0 (0.0)	0 (0.0)		
spreau faster	Strongly agree	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)		

# Table 8: Chi-square test and cross tabulation for inheritance and health seeking behavior for breast cancer patients.

		Start of treatme	Chi-square Test				
Variables	Category	Immediately	After 6 months	After one year	Never	$\chi^2$	P value
Breast cancer can be inherited	Strongly disagree	6 (66.7)	2 (22.2)	1 (11.1)	0 (0.0)		0.480
	Disagree	31 (72.1)	8 (18.6)	4 (9.3)	0 (0.0)	12 200	
	Neutral	6 (50.0)	5 (41.7)	1 (8.3)	0 (0.0)	12.200	
	Agree	19 (76.0)	3 (12.0)	2 (8.0)	1 (4.0)		
	Strongly agree	3 (42.9)	4 (57.1)	0 (0.0)	0 (0.0)	-	

Belief that herbal medicine can cure breast cancer; 65.6% of the respondents disagreed that herbal drugs can cure breast cancer while 16.7% of the respondents had a neutral view. Only 5.2% of the respondents agreed that herbal drugs are a cure to breast cancer. 12.5% of the respondents strongly disagreed to believing that herbal

remedies could cure breast cancer (Table 6). The belief in herbal remedies is not a determinant of health seeking behavior among breast cancer patients in Kisii County ( $\chi^2$ =5.210, P=0.816).

	Cultural factor	Health seeking behavior
Correlation Coefficient	1.000	-0.068
Sig. (2-tailed)	-	0.509
N	96	96
Correlation Coefficient	-0.068	1.000
Sig. (2-tailed)	0.509	-
N	96	96
	Correlation Coefficient Sig. (2-tailed) N Correlation Coefficient Sig. (2-tailed) N	Cultural factorCorrelation Coefficient1.000Sig. (2-tailed)-N96Correlation Coefficient-0.068Sig. (2-tailed)0.509N96

#### Table 9: Correlation table showing relationship between cultural factor and health seeking behavior.

# Belief that surgery to breast cancer patient leads to the cancer metastasizing

Believing that if you conduct surgery to breast cancer patient, it will metastasize; 62 (64.6%) respondents were not sure whether conducting surgery on the breast cancer patients, the cancer will spread faster or not. 6.3% of the respondents agreed that conducting surgery to the breast cancer patient leads to metastasizing of the disease. 22.9% of the respondents disagreed to this belief (Table 7). Chi-square test showed that conducting surgery to breast cancer helps to spread faster doesn't hold ( $\chi^2$ =5.538, P=0.785).

# Belief that breast cancer can be inherited

71.1% of the respondents said that one cannot inherit breast cancer. Consequently, 19.2% of them saw the need to seek medication 6 months after diagnosis. For the neutral response with 12.5% of the respondents, 50.0% of this proportion sought treatment and medication immediately after diagnosis while 41.7% sought treatment after six months of diagnosis. 26% of the respondents accepted that breast cancer can be inherited (Table 8). Test of association showed that breast cancer cannot be inherited (x2=12.200, P=0.480). 38.4% of the respondents believed that seeking special prayers from religious leaders may prevent one from getting modern treatment for breast cancer while 10.8% of the respondents disagreed with the belief that special prayers can prevent one from seeking treatment for breast cancer. Correlation analysis indicated a negative relationship between cultural factors and the health seeking behaviors (r = -0.068, P=0.509) (Table 9).

# DISCUSSION

There is inadequate evidence concerning health seeking behavior and associated factors for the control and prevention of breast cancer in the rural areas of Kisii County. This was clearly depicted from the high number of respondents who came from rural areas to seek treatment in the urban health facilities. Further, this is supported by the fact that Kisii teaching and referral hospital is the only referral hospital in the County which also extends its services to residents from other counties like Bomet, Kericho, Migori and Homa bay. It has been shown that patients delay in presentation for health care among African patients with breast cancer for as long as 8 to 12 months<sup>5</sup>. This delay might be due to lack of awareness, fear of treatment, preference for spiritual or native care and lack of funds for breast cancer treatment. Consequently, these factors lead to increased delay in presentation and this is in turn associated with advanced cancer stage at diagnosis, thereby resulting in poorer chances of survival.<sup>9</sup>

There are a number of patient related factors that may influence the time to first health-care visit, diagnosis and treatment of breast cancer patients.<sup>10</sup> Religion and cultural beliefs are the major factors in health seeking behavior among women suffering from breast cancer. This implies that cultural beliefs are not the determinant for one to go for breast cancer treatment. This finding is in agreement with other researchers' findings that showed that visiting a traditional healer before the first healthcare visit increased the hazard of beginning treatment later<sup>10</sup>. Minimal proportions of the respondents in the present study agreed that breast cancer is a curse and can be caused by witchcraft. Therefore, these respondents end up using traditional medicine as a treatment option for breast cancer. This finding agrees with studies carried out in Ethiopia that have shown that performing spiritual acts like using holy water or seeking care from traditional healers is common amongst the breast cancer patients.<sup>11</sup> Further, that the use of traditional medicine might have a negative impact on the survival of the patient because it might lead to advanced stages of the disease and when traditional medicine is used as an alternative to standard cancer therapy.<sup>10</sup>

These findings show that in Kisii County, there are two main patterns of health seeking behavior among breast cancer patients. The first health seeking behavior is seen among those who belief in traditional healers in that most women and their family members seek treatment from traditional healers once they are diagnosed with breast cancer. The second health seeking behavior is seen when patients seek treatment from modern health care facilities probably after the failure of traditional remedies for breast cancer. This is consistent with other studies that have shown that most women prefer traditional remedies because there is a belief that traditional healers offer immediate symptomatic pain relief.8 Further, traditional remedies are more readily accessible and cheaper than modern treatment. Other studies have reported that most of the cancer patients prefer using modern therapy to

traditional therapy.<sup>12</sup> Therefore, the belief in traditional medicine, spiritual cures or financial constraints will make a patient delay in presentation to the hospital and this directs this directs the patient to where she can afford the treatment.<sup>13</sup>

The present study revealed that majority of the respondents were aged 20-29 years, an observation which is in contrast with past research from North East India which shows that majority of the breast cancer patients were aged 45-64 years.<sup>9</sup> This contradiction may imply that the respondents who are in the age bracket 20-29 are the majority because of their awareness level and knowledge on the perceived risks associated with breast cancer. On the contrary, in the study from North East India, majority of the breast cancer positive patients are aged 45-64 years. Most likely, this group of women are economically empowered hence they can afford breast cancer treatment.

Level of the respondent's education, employment status and level of income are factors behind late presentation of the patient to the hospital. However, these factors do not influence the health seeking behavior of the patients. Majority of the respondents had attained a secondary level of education implying that they had knowledge on breast cancer and the risks of late presentation. Lack of knowledge and awareness of breast cancer, its symptoms, fear of diagnosis and treatments are widespread and with advanced-stage diagnosis associated and presentation in low and middle income countries.<sup>14</sup> In other studies, lack of education has been cited as one of the barriers to early presentation of the disease in African women<sup>15</sup> and this condition may affect not only the health and lives of the women, but also their children, families, communities and the nation at large. In South Africa, it has been shown that low level of education leads to lack of knowledge of symptoms and risk factors, fear of treatments and higher financial burden of treatments leading to delays in accessing treatment.<sup>14</sup>

Employment status and level of income of a household are key to health seeking behavior. Families with stable income from their sources of employment are more likely to seek treatment from the county referral hospital than those with unpredictable income. Financial constraint is a key factor in breast cancer health seeking behavior. This is in agreement with the findings from Addis Ababa, Ethiopia which was looking at the health seeking behavior of patients diagnosed with cervical cancer. The study noted that women opt for traditional therapy to modern treatment due to costs incurred; that is traditional services provided for cancer care are cheaper compared to modern cancer therapy.<sup>12</sup> It has also been reported that insufficient financial resources, worry about examination discomfort and fear of finding cancer due to associated myths and stigma leads to late presentation and influences health seeking behavior among the patients.<sup>2</sup>

There are several factors for patient delay in presentation to modern health care facilities for treatment. One of them is the socio-cultural beliefs in which people belief that surgery on the breast will lead to metastasis of the cancer to other parts of the body. In this study, majority of the respondents pointed out that breast cancer is a killer disease that metastasizes very fast to other parts of the body once a person is infected. However a big proportion of the respondents were not sure of the cancer metastasizing in case of a surgery.<sup>15</sup> This belief will make a patient to either present late to the hospital or seek treatment elsewhere where there will be no mastectomy. A study in Bangladesh showed that 92.24% of the respondents perceived that by using alternative medicine there would be no need of operation, and further they saw that those who were using it got cured.<sup>16</sup> Evidence has shown that delay in presentation is a significant contributor for progression of the disease to advanced stage, consequently increasing mortality from breast cancer<sup>13</sup>. This shows that fear and fatalism were common in this study and therefore, engaging women with breast cancer may enhance messages about the benefits of early detection and early treatment for breast cancer.<sup>17</sup> To reduce mortalities from breast cancer, there is need to dispel misconceptions about the causes or aggravating factors for breast cancer.

# Limitations

The main limitations of this study were; poor responses from the study participants, refusals to sign the consent form and failure to return the questionnaires. This made the study period longer than expected because we had to prolong the period until we achieved the required sample size.

# CONCLUSION

The respondent's education, employment status and level of income are the socio-economic factors that determine health seeking behaviour among women diagnosed with breast cancer in Kisii County. An individual's level of education will raise awareness for the treatment options that are available for breast cancer. Employment status and level of income will enable the patient to afford the treatment services for breast cancer. Use of traditional medicine as a treatment option for breast cancer makes women opt for traditional therapy to modern treatment because it is cheaper compared to modern cancer therapy.

# **Recommendations**

There is need to raise awareness on breast cancer symptoms and treatment options to avoid late presentation to the hospital for treatment. The government should consider integrating counseling services with health care facilities to offer psychosocial support to breast cancer patients. This will assist in getting rid of the breast cancer negative perceptions like fear of death, depression and embarrassment.

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### REFERENCES

- 1. International agency for research on Cancer. Latest global cancer data, 2018. Available at: https://gco.iarc.fr/. Accessed on 20 October 2021.
- Kisiangani J, Baliddawa J, Marinda P, Mabeya H, Choge JK, Adino EO, Khayeka-Wandabwa C. Determinants of breast cancer early detection for cues to expanded control and care: The lived experiences among women from Western Kenya. BMC Women's Health. 2018;18(1):1-9.
- 3. World health statistics overview 2019: monitoring health for the SDGs, sustainable development goals. Available at: https://www.who.int/publications/i/ item/world-health-statistics-2019-monitoring-health-for-the-sdgs-sustainable-development-goals. Accessed on 20 October 2021.
- 4. World health statistics 2015: WHO position paper on mammography screening. Available at: https://apps. who.int/iris/handle/10665/137339. Accessed on 20 October 2021.
- Agodirin OS, Aremu I, Rahma GA, Olatoke SA, Akande H, Oguntola AS, et al. Prevalence of themes linked to delayed presentation of breast cancer in africa: a meta-analysis of patient-reported studies. JCO Global Oncol. 2020;6:731-42.
- Habtu Y, Yohannes S, and Laelago T. Health seeking behavior and its determinants for cervical cancer among women of childbearing age in Hossana Town, Hadiya zone, Southern Ethiopia: Community based cross sectional study. BMC Cancer. 2018;18(1):1-9.
- Orindi OT. Factors that Influence the Uptake of Breast Cancer Screening among Secondary School Student: Case of Kisii South Sub-County Kenya. Oncol Cancer Case Rep. 2016;2(1):1-9.
- Birhanu Z, Abdissa A, Belachew T, Deribew A, Segni H, Tsu V, Mulholland K, Russell FM. Health seeking behavior for cervical cancer in Ethiopia: A qualitative study. Int J Equity Health. 2012;11(1):1-8.
- 9. Kumar A, Bhagabaty SM, Tripathy JP, Purkayastha J, Singh R. Delays in Diagnosis and Treatment of

Breast Cancer and the Pathways of Care : A Mixed Methods Study from a Tertiary Cancer Centre in North East India. Asian Pacific J Cancer Prevent. 2019;20:3711-21.

- 10. Traore CB, Ly M, Grosse K, Id F, Kamate B, Coulibaly B, Wienke A, Kantelhardt EJ. Factors associated with time to first healthcare visit, diagnosis and treatment, and their impact on survival among breast cancer patients in Mali, PLoS ONE. 2018; 13:1-13.
- 11. Gebremariam A, Addissie A, Worku A, Assefa M, Kantelhardt EJ, Jemal A. Perspectives of patients, family members, and health care providers on late diagnosis of breast cancer in Ethiopia: A qualitative study. PLoS ONE, 2019;14(8):1-14.
- 12. Mesafint Z, Berhane Y, Desalegn D. Health Seeking Behavior of Patients Diagnosed with Cervical Cancer in Addis Ababa, Ethiopia. Ethiopian J Health Sci. 2018;28(2):111-6.
- 13. Tesfaw A, Demis S, Munye T, Ashuro Z. Patient Delay and Contributing Factors Among Breast Cancer Patients at Two Cancer Referral Centres in Ethiopia: A Cross-Sectional Study. J Multidiscip Healthcare. 2020;13:1391-401.
- 14. Joffe M, Ayeni O, Norris SA, Mccormack A, Ruff P, Das I, Neugut AI, Jacobson JS, Cubasch H. Barriers to early presentation of breast cancer among women in Soweto, South Africa, PLoS ONE. 2018;1-16.
- 15. Akuoko CP, Armah E, Sarpong T, Quansah DY, Amankwaa I, Boateng D. Barriers to early presentation and diagnosis of breast cancer among African women living in sub-Saharan Africa, PLoS ONE. 2017;1-18.
- Akhtar K, Akhtar K, Rahman MM. Use of Alternative Medicine Is Delaying Health-Seeking Behavior by Bangladeshi Breast Cancer Patients. Eur J Breast Health. 2018;4:166-72.
- 17. Kohler RE, Gopal S, Lee CN, Weiner BJ, Reeve BB, Wheeler SB. Breast cancer knowledge, behaviors and preferences in malawi : implications for early detection interventions from a discrete choice experiment. J Global Oncol. 2021;3(5):480-9.

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