

Health Belief of Elderly Women as Predictor of Health-Seeking Behavior to Breast Cancer Prevention in Kuru Local Government Area of Kaduna State, Nigeria

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Abstract: The study investigates the health belief of older women as predictors of health-seeking behaviors to breast cancer prevention in Kuru Local Government Area of Kaduna State. The study employed a descriptive cross-sectional survey. A Multi-stage sampling technique was used to select 394 elderly women in Kuru Local Government Area of Kaduna State. The demographic information and research question were analyzed using descriptive statistics while the research hypotheses were analyzed using Pearson Product Moment Correlation and Linear regression at 0.05 level of significance. The results showed 41.6% of the elderly women had average knowledge of breast cancer prevention, 46.7% high level of susceptibility to breast cancer, 35.5% perceived severity, 39.3% perceived barriers, 39.8% perceived benefits. There was a significant relationship between the health belief and behavioral skills on breast cancer prevention ($r= 0.881, p< 0.05$). The most significant predictors of breast cancer prevention among the Elderly women is perceived severity ($\beta = 0.157; t =2.543; p < 0.05$). Next in terms of magnitude of predictor is perceived susceptibility ($\beta = 0.114; t = 2.542; p < 0.05$), perceived benefits ($\beta = 0.127, t =1.139; p < 0.05$) and perceived barriers ($\beta = 0.112, t =1.533; p < 0.05$). Hence, the four health belief variables had significant contribution to breast cancer prevention. The study recommends that, government and non-governmental health agencies scale-up campaigns specifically tailored to change negative attitudinal barriers as well encourage Breast Self-Examination among women in the northern region of Nigeria. Healthy lifestyle is the best form of prevention of breast cancer prevention among women.

Keywords: Health belief, Breast cancer, Behavior, Elderly women, Health agencies

I. INTRODUCTION

Cancer is the world's second leading cause of death and is responsible for an estimated 9.6 million deaths in 2018. Cancer is a major public health problem. About 1 in 6 deaths are caused by cancer. Globally (WHO, 2018). Breast cancer is one of the leading causes of disability among older women around the world. It is responsible for 30% of all cancer cases and 15% of all cancer deaths. Breast cancer is the most common cancer, claiming the lives of around 800,000 women worldwide each year, with the number expected to rise to about 16 million by 2020. 70% of new cases of breast cancer are predicted to be diagnosed in developing and low-

income countries, with Nigeria having the highest rate of breast cancer cases among women (WHO, 2013; Abdulkareem, 2013). GLOBOCAN 2018, recorded that the new number of cases of cancer in Nigeria was about 115,950 and 70,327 deaths were recorded from cancer; breast cancer accounted about 22.7% (26,310) of cancer cases. According to the GLOBOCAN report of 2020, Nigeria recorded about 124,815 cases of cancer, 78,899 deaths due to cancer, 233,911 prevalent cases, breast cancer accounted for about 22.8% (28,380) in all cases. This statistic implies or shows a progression of breast cancer cases in Nigeria; hence breast cancer is a public health issue in Nigeria.

Women delay seeking evaluation long enough to adversely affect their chances of long-term survival (Adebamowo et al., 2018; Adesunikanmi, Lawal, Adelusola, & Durosini, 2016; Akinkuolie, Etonyeaku, Olasehinde, Arowolo, & Babalola, 2019). Delays in seeking medical care after becoming aware of breast symptoms may lead to an advanced stage of the illness at diagnosis and a shorter survival time among older women in northern region of Nigeria. In the North-central geopolitical zone in Nigeria, breast cancer constituted 22.41% of new cancer cases registered in 5 years and accounted for 35.41% of all cancers in women (Afolayan et al., 2018). Breast cancer was second to cancer of the cervix in the North-Western geopolitical zone of Nigeria while at University College Hospital (UCH) in Ibadan which is situated in the South-Western geopolitical zone of Nigeria; breast cancer was the leading malignancy among women (Ogunbiyi et al., 2019).

One of the major problem of Kuru Local government area is the lack of access to orthodox health care is a critical issue in many developing countries (Abdulmalik, 2017), with traditional medicine comprising the first source of health care for ~80% of the population in the local government area (Adewole, 2018; Abdulmalik, 2017; WHO, 2017). The World Health Organization (WHO, 2017) recently reported that despite progress, many countries still face challenges, including unfavorable policy and economic and regulatory environments for the local production of traditional medicine. Researchers have urged policy-makers for a number of years

to learn from THs and include traditional methods in policy and practice (Hoff, 2017). Moreover, there is a lack of a systematic national screening programme in Kaduna state involving mammography to screen and identify women who may be at risk of breast cancer or have breast cancer and need further examination (Clegg-Lampsey 2019; Jimoh, 2018). As a result, cancers are emerging as a significant public health problem in the local government are (Wiredu and Armah, 2016; Abdulmalik, 2017). Breast cancer is a common cause of hospital admissions and mortality among Kaduna women. In primary health care centre of Kaura LGA, women who are at risk and often diagnosed with breast cancer are women, between 40 and 49 years; thus, breast cancer initiatives should target Elderly women in the region.

The following are the research question this study intends to answer:

1. What is the level of health belief (perceived susceptibility, perceived barrier and perceived benefit) of breast cancer prevention among elderly women in breast cancer in Kauru Local Government Area of Kaduna State?
2. What is the level of health seeking behaviors of elderly women practice towards prevention and control of breast cancer in Kaduna State?

II. METHODOLOGY

A descriptive survey was employed for this research. This research was carried out in Kauru local government area of Kaduna state. The study population for this research will focus on Elderly women (50-80 years old) in Kauru local government area of Kaduna state. The study used Armitage and Berry 1994 formula to calculate the sample size of the population and a sample size of 400 was derived. This research employed a multistage cluster sampling, natural groups (cluster) were initially sampled, and with the members of each selected group being subsampled. Purposive sampling was used to select a total 394 residents in the local government area. In this study, both face and content validity was adopted to authenticate that the study instruments, measures exactly what it is designed to measure. The reliability of the research instruments was conducted administering the instruments to a replica of the proposed study population, 10% of the sample size was pre-tested to check if the research instrument is reliable. The result from Cronbah Alpha result of 0.860, 0.749, and 0.721 was the result for health belief, behavioral skills, and health seeking behavior. The study utilized a questionnaire which has 47 itemed structured questions administered to the Elderly women. Data retrieved from this study was analyzed using the version 27.0 Statistical Package for Social Sciences (SPSS).

III. RESULTS AND DISCUSSION OF FINDINGS

The study revealed that majority of the respondents, 40.6% are between the ages of 66years and above, 30.2% are between the ages of 55-60years, 29.2% are between the ages

of 61-62years. The mean age of the women is 63.5years. 67.8% of the women are married while 27.8% are widowed and 5.8% are single. More than half of the participants, 55.8% are from the Muslim religion while 38.1% are Christian by faith while 6.1% represent other religious affiliation. Most of the women 40.9% had primary school education, 37.8% had secondary education, 15.2% had no formal education, and 6.1% had tertiary level of education. 65.5% of the respondents are predominantly from the Hausa tribe while 20.3% are from Yoruba tribe and 14.2% are from the Igbo.

Knowledge of Breast Cancer Prevention

On the question related to the respondent’s knowledge on breast cancer, the study indicated that 73.6% of the respondents have heard about breast cancer. Major of source of information breast cancer was from the health worker (37.6%), 24.1% reported radio, 21.3% reported family and friends, while 17% reported television. Most of the women were correct that poor hygiene is one of the main causes of breast cancer among women, 26.6% reported natural causes, 18% reported other causes while 15.2% reported punishment from God while 5.1% reported other causes. 53.6% of the respondents reported that changes in the position of nipple could be one of the signs of breast cancer among women of reproductive. Majority of the women, 56.1% were correct that pain in one of the breast could be one of the sign of breast cancer also, 61.2% of the respondents were correct that abnormal discharge from the nipple could be a sign of breast cancer. 67% of the respondents were correct that nipple rash could be a sign of breast cancer. Also, 78.9% of the were correct that having lump under the armpit is one of the signs of breast cancer. 65.2% of the respondents were correct that sudden changes in size are one of the signs of breast cancer. Most of the respondent, 73.1% were correct that discoloration of the breast can be one of the signs of breast cancer.

Table 1: Summary of level of knowledge about breast cancer prevention

Criteria	Frequency	Percentage
High (17-23)	137	34.8
Average (9-16)	164	41.6
Poor(1-8)	93	23.6
Mean =15.9, Std. Dev = 3.09		

This study asked 14 questions relating level of knowledge about breast cancer prevention among elderly women. Maximum score obtainable is 23. Their level of knowledge about breast cancer prevention was categorized as High (17-23), Average (9-16) and Poor (1-8). Majority of the respondents 41.6% of the elderly women had average knowledge of breast cancer prevention, 34.8% of the women had high level of knowledge while 23.6% had poor level of knowledge of

Health Belief of Breast Cancer Prevention

The study indicated that majority of the respondents, 29.7% strongly agreed that they are at risk of developing breast cancer, 26.4% disagreed. Most of the participants 38.6% agreed that it they have possibility of developing breast cancer in their lifetime. Also 32.7% disagreed that they of high risk of developing breast cancer as a result of their unhealthy lifestyle. For the perceived severity, most of the participants, 39.6% agreed they might possibility die from breast cancer, 37.6% also agreed that most people do not recover from breast cancer. 36.3% of the respondents disagreed that breast cancer only affect young women as it affect all ages. Participants also responded to the perceived barriers, 38.8% of the women disagreed that they found it embarrassing to see a male doctor. 35.3% of the respondents also disagreed that seeing a doctor can be expensive. 35.5% of the respondent strongly agreed that their family/husband/relative would surely approve of them seeing a doctor. Most of the respondents, 34% agreed that screening strongly contributes to early diagnosis of breast cancer. 43.7% of the respondents agreed that screening decreases the risk of severe or advance breast cancer. Majority of the respondents 40.6% strongly agreed that regular screening/ examination makes me less worried about breast cancer.

Answering of research questions two on the level of Health Belief about breast cancer

Table 2: Summary of level of Health Belief about breast cancer prevention

Category	Perceived Susceptibility	Frequency	%
9-12	High	184	46.7
5-8	Moderate	110	27.9
1-4	Low	100	25.4
Mean =8.16, Std. Dev = 1.95			
	Perceived Severity		
9-12	High	134	34.0
5-8	Moderate	140	35.5
1-4	Low	120	30.5
Mean =6.59, Std. Dev = 1.58			
	Perceived Barriers		
9-12	High	155	39.3
5-8	Moderate	129	32.7
1-4	Low	110	27.9
Mean =8.11, Std. Dev = 2.01			
	Perceived Benefit		
9-12	High	157	39.8
5-8	Moderate	128	32.5
1-4	Low	109	27.7
Mean =12.0, Std. Dev = 1.72			

This study asked 3 questions on each of the health belief variables relating to breast cancer among elderly women. Maximum score obtainable for each of the variable is 12. It has been categorized as; High (9-12), Moderate (5-8) and Low (1-4). For perceived susceptibility, implies that, there is 46.7% high level of susceptibility to breast cancer, 27.9% reported moderate susceptibility while 25.4% low. For perceived severity, 35.5% of the respondents had moderate level of perceived severity, 34% had high level of severity while 30.5% had low level of severity. For perceived barriers, 39.3% there was high level of barriers among the elderly, 32.7% had moderate level of barriers while 27.9% had low level of barriers. Also for the perceived benefits; 39.8% reported high level of benefit from breast cancer prevention, 32.5% had moderate benefit from breast cancer prevention and 27.7% had low level of benefit from breast cancer prevention.

Health-Seeking Behavior of Breast Cancer Prevention

The study showed that majority of the women disagreed that they make appointment with their doctor when they feel discomfort in my breast. 38.6% disagreed to use traditional remedies and homemade remedies when they see symptoms of breast cancer. 41.4% disagreed that go for regular breast check-up. 37.6% of the respondents agreed that performing regular exercise reduces the chances of developing breast cancer. 46.4% strongly agreed that they pray and fast whenever they notice any form of symptoms around their breast.

Research questions four on the level of Health-Seeking Behavior about breast cancer prevention

Table 3: Summary of level of Health-Seeking Behavior about breast cancer prevention

Category	Health-Seeking Behavior	Frequency	%
15-20	Good	155	39.3
8-14	Average	156	39.6
1-7	Poor	83	21.1
Mean =12.4, Std. Dev = 2.47			

This study asked 5 questions on each of the health-seeking behavior questions on the breast cancer prevention among elderly women. Maximum score obtainable for each of the variable is 12. It has been categorized as; Good (15-20), Average (8-14) and Poor (1-7). 39.6% of the participants had average level of health-seeking behavior, 39.3% had good level of health seeking behavior while 21.1% had poor level of health-seeking behaviour among the elderly women.

Hypothesis One: There is no joint predictor of health belief variables on breast cancer prevention among elderly women in breast cancer in Kuru Local Government Area of Kaduna State.

Table 4: Multiple regression analysis showing the health belief variables as predictor of breast cancer prevention among elderly women in breast cancer in Kuru Local Government Area of Kaduna State

R= 0.737; R ² =0.543; Adjusted R ² =0.539; Standard Error = 1.02538				
	B	Std. Error	t	
(Constant)	2.461	.371	6.626	.000
Perceived Susceptibility	.114	.056	2.542	.000
Perceived Severity	.157	.041	1.853	.001
Perceived Barriers	.112	.022	1.533	.001
Perceived Benefits	.127	.024	1.139	.000

However, results obtained in Table 4 above indicate the effect of each of the independent variables (perceived susceptibility, severity, barriers and benefits) on the dependent variable (breast cancer prevention). In terms of most significant predictors breast cancer prevention among the elderly women is perceived severity ($\beta = 0.157$; $t = 2.543$; $p < 0.05$). Next in terms of magnitude of predictor is perceived susceptibility ($\beta = 0.114$; $t = 2.542$; $p < 0.05$) followed by perceived benefits ($\beta = 0.127$, $t = 1.139$; $p < 0.05$) and then perceived barriers ($\beta = 0.112$, $t = 1.533$; $p < 0.05$). Hence, the four health belief variables had significant contribution to breast cancer prevention among elderly women in breast cancer in Kuru Local Government Area of Kaduna State.

IV. DISCUSSION OF FINDINGS

Level of Knowledge of Breast Cancer Prevention among elderly women

The study showed that majority (41.6%) of the respondents had average knowledge regarding breast cancer prevention, while 34.8% of the women had high level of knowledge while 23.6% had poor level of knowledge of breast cancer prevention. The result of the analysis is consistent with that of Morounke et al. (2017) that knowledge of the prevention of breast cancer is directly linked with poor health-seeking behavior of rural women in Osun State. The result is also in tandem with the view of Ghazali, (2013) that knowledge level of women determine pattern of practice of BSE which have tendencies of reducing the prevalence level of breast cancer among women and girls. Stamler, Thomas, & Lafreniere, (2018) reported increased knowledge of BSE as a result of perceived benefit to female undergraduate student.

Health Belief of breast cancer prevention of Elderly women

The result of research question two showed that, for perceived susceptibility, implies that, there is two-third of the women had high level of susceptibility to breast cancer, For perceived severity, majority of the women had moderate level of perceived severity. For perceived barriers, two-third of the women had high level of barriers among the elderly. At the level of perceived benefits; over half of the women had high level of benefit from breast cancer prevention. The result of the analysis is consistent with the findings of Ademikanra,

(2019) that cases of breast cancer women have been due to many behaviors, including faith curing practices, confidence in the herbal process, and several women wasting the bulk of their time using herbal remedies, thereby arriving late at the hospital until the condition becomes worse. The result of the analysis in tandem with the findings Agatha, et al., (2017) that norms, actions, attitudes, and belief all play a part in breast cancer decision-making. Some of these influences can include presumed vulnerability to breast cancer, faith, attitudes, and belief.

Health-seeking behavior of women towards Breast Cancer Prevention

The result of research question three showed that majority 39.6% of the participants had average level of health-seeking behavior, 39.3% had good level of health seeking behavior while 21.1% had poor level of health-seeking behavior among the elderly women. The result corroborates with the findings of Akuoko et al. (2017) identified socio-cultural factors and fear as influencing their health-seeking behaviors. Very little is known about the health-seeking behaviors of Nigerian women with advanced breast cancer. Furthermore, women delay seeking evaluation long enough to adversely affect their chances of long-term survival (Adebamowo et al., 2008, Adesunkanmi et al., 2006, Adisa et al., 2012, Akarolo-Anthony et al., 2010, Akinkuolie et al., 2016). Delays in seeking medical care after becoming aware of breast symptoms may lead to an advanced stage of the illness at diagnosis and a shorter survival time. Furthermore, Ajayi, (2019) reported that factor that explain late presentation to health care providers have been described at the individual level (low breast cancer awareness and knowledge, misconceptions and mythical beliefs, mistrust in the health care system, financial and access barriers) and at the health system level (low quality and availability of health care services, absence of specialized public services and necessary drugs, high diagnosis and treatment costs, low knowledge and no referral among health professionals, lack of health insurance).

Hypothesis two: The result of hypothesis two indicated that, all the health belief variables is a significant predictor of breast cancer prevention among women in breast cancer in Kuru Local Government Area of Kaduna State. The result is in tandem with the findings of Pool & Judkins, (2019) that, there was an association between health belief variables and the practice of breast cancer prevention among elderly women in low and middle income countries where resources is practically not available. Crooks & Jones, (2019) found an association between health belief variables of women and the breast cancer prevention among the women. The study discussed the importance of early detection depends in part on women having an increased awareness of their essential active role in performing BSE on a consistent basis, being correctly informed about breast cancer, and knowing what screenings are recommended and what services are readily accessible to them. Silverberg & Lubera, (2018) also found a significant

relationship between health belief variables and practice of the prevention of breast cancer among women of reproductive age.

V. CONCLUSION AND RECOMMENDATION

The hallmark of breast cancer or any breast related problem is late presentation of the individuals when little or no benefit can be derived from any form of therapy and due to this, there has been an alarming increase in the incidence of breast cancer worldwide. This has led to the sudden increase in the incidence of breast cancer and this is related to late detection of breast changes. The study established that Majority of the respondents 41.6% of the elderly women had average knowledge of breast cancer prevention. Hence, the four health belief variables had significant contribution to breast cancer prevention.

Based on the outcomes of this study, it is recommended that: Governmental and non-governmental health related agencies need to scale-up campaigns specifically tailored to change negative attitudinal barriers and emphasis should be laid on the importance of Breast Self-Examination among elderly women in the northern region of Nigeria. There is need for building behaviour skills for Elderly women on building control over their reproductive health through consistent breast self-examination for the prevention of cancer. Campaign planners should lower the age for screening and mammograms so that early detection and presentation at the hospital is enhanced. The study also recommends a healthy lifestyle as the best form of prevention. Frequent consumption of fruits and vegetables and physical activity can make a difference.

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