

KNOWLEDGE, ATTITUDE, AND PRACTICE OF BREAST CANCER COMMUNICATION GUIDELINES AMONG WOMEN IN BENUE STATE

By
Chibugo Sochima Ozoemena
Department of Mass Communication
University of Nigeria, Nsukka, Enugu State Nigeria.

Okoye Nneoma Emelechi
Department of Mass Communication
Nnamdi Azikiwe University Awka, Anambra State Nigeria
nn.okoye@unizik.edu.ng
+2347036757922

B.N. Chinweobo-Onuoha PhD
Department of Mass Communication
University of Nigeria Nsukka, Enugu State Nigeria.
blissing.chinweobo-onuoha@unn.edu.ng
+2348032161886

Abstract

This study assessed the knowledge, attitude, and practices regarding breast cancer communication guidelines among women in Benue state. The study was grounded in two theories: The theory of planned behaviour and Health Belief Model. The researcher adopted quantitative method for the execution of the study, and a population of 3,189,712 was studied using a sample size of 400. Data were collected using a structured questionnaire and analyzed with the Social Science Statistical package (SPSS). The findings, among others, revealed that there was a high level of exposure to breast cancer communication guidelines among women in Benue State. However, while knowledge levels were relatively high, attitude and practice lagged with many women failing to carry out regular self-examination or seek clinical screening. The study concludes therefore that although the mass media have been successful in raising awareness, the content and presentation of the messages are not consistently strong enough to drive sustained behavioural change. The study therefore recommends sustained public health education, through mixed media use, to promote early detection of breast lumps. increased community-based communication effort, strengthen behavioural health communication leveraging survivor communication narratives, and sustained collaboration between media professionals, health educators, and community groups to improve early detection practices and reduce mortality from breast cancer in Nigeria.

Keywords: Breast cancer, communication guidelines, knowledge, attitude, practice

Introduction

Communication is central to understanding and advancement of health behaviour, particularly in the prevention and management of diseases such as breast cancer. In its broadest sense, communication refers to the process of transmitting ideas, feelings, and information between individuals or groups using symbols, language, or other mutually understood codes (Okunna, 1999; Oparugo, 2021). In public health contexts, effective communication bridges the gap between medical knowledge and individual behaviour, thereby shaping how people perceive, interpret, and act upon health information.

Breast cancer remains one of the most critical public health issues globally and in Nigeria in particular. The disease, characterized by the uncontrolled growth of malignant cells in the breast tissue, poses a significant threat to women's health. Globally, the incidence of breast cancer continues to rise, with over 16 million new cases reported annually, and developing countries accounting for the majority of deaths (World Health Organization [WHO], 2018). According to the International Agency for Research on Cancer (IARC, 2020), Africa recorded about 1.4 million new cases of breast cancer and approximately 714,000 deaths in 2020, a figure projected to triple by 2030 due to demographic growth, lifestyle changes, and limited access to health care. In Nigeria, the disease has emerged as the most common cancer among women, contributing significantly to maternal morbidity and mortality. (WHO, 2021)

The challenge lies not only in the biological burden of the disease but also in the inadequacy of communication on its prevention and management. Breast cancer communication guidelines, which include recommendations on awareness creation, screening, and early detection, are important tools for promoting health literacy and preventive behaviour. These guidelines are disseminated through broadcast media, social media, healthcare institutions, and interpersonal communication. Their effectiveness, however, depends on the extent to which women understand, accept, and practise the recommended behaviours.

Despite widespread sensitization campaigns in Nigeria, many women still present late for diagnosis and treatment. Studies suggest that limited awareness, misconceptions, and cultural barriers contribute to delayed response to breast cancer symptoms (Chustecka, 2018; Oluwatosin et al., 2021). In Benue State, campaigns such as *You and Your Breast* on NTA Makurdi, *Self-Examine* on Star FM, and *Kick Cancer Out* on Benue TV have sought to educate women on breast self-examination and early medical consultation. Yet late presentation and low screening compliance remain high, raising questions about the accessibility, comprehension, and practical adoption of these communication guidelines (Oluwatosin & Oladepo, 2021).

In Benue State, as in many parts of Nigeria, the relationship among knowledge, attitude, and practice presents an important communication challenge. Many women may have heard about breast cancer but lack accurate knowledge or motivation to act. Others may be informed but constrained by fear, stigma, or cultural interpretations that discourage early detection practices. This study therefore investigates the extent to which women in Benue State are informed about breast cancer communication guidelines, how they perceive such messages, and whether these perceptions translate into preventive health behaviour.

The study is anchored on the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM). The TPB, developed by Icek Ajzen, posits that behaviour is directly driven by behavioural intention, which is shaped by attitudes, subjective norms, and perceived behavioural control. Ajzen (1991) explains that these factors jointly predict intention, which reflects a person's readiness to perform a behaviour. Intention is regarded as the immediate antecedent of behaviour, although perceived behavioural control may also directly influence behaviour when it reflects actual control. Thus, the theory follows a sequence in which beliefs shape attitudes, norms, and control; these shape intention; and intention predicts behaviour.

The Health Belief Model explains that an individual's readiness to take health-related action depends on perceived susceptibility to a disease, perceived severity of its consequences, perceived benefits of preventive action, and perceived barriers to taking that action. In this study, the HBM helps explain why awareness alone may not lead to behavioural change when women do not see breast cancer as a personal threat or fail to perceive the benefits of preventive measures.

This paper therefore assesses the knowledge, attitudes, and practices regarding breast cancer communication guidelines among women in Benue State. It also examines the media through which these guidelines are disseminated and evaluates the extent to which they are understood and acted upon. The findings are expected to provide insights for improving health communication strategies so that breast cancer campaigns move beyond information dissemination to meaningful behavioural change.

Research Questions

1. What is the level of knowledge of breast cancer communication guidelines among Women in Benue State?
2. Through which media channels do women in Benue State most often access communication guidelines on breast Cancer?
3. What is the attitude of Benue State women to communication on breast cancer?
4. To what extent do women in Benue State practice the communication guidelines on breast cancer?

Methodology

Research Design

This study adopted the quantitative research method using the survey design. The design was considered appropriate because it allows the collection of quantifiable data from a large population in order to describe and analyse prevailing knowledge, attitudes, and practices concerning breast cancer communication guidelines. Survey research also makes it possible to generalize from a sample to a larger population and is particularly suitable for public health communication studies that examine relationships between media exposure and behavioural outcomes.

The study population comprised all women in Benue State. According to the National Population Commission (2006), the female population of the state was 2,109,598. Using the official annual growth rate of 3.2%, the population was estimated at 3,189,712 women by 2022. In addition, the *Benue State Statistical Year Book* (2021), sponsored by the United Nations Population Fund (UNFPA), projected the female population for 2020 at a 3% growth rate as 86,933 in Agatu LGA,

274,951 in Gboko LGA, and 169,513 in Katsina-Ala LGA, giving a total of 531,397 women across the three LGAs.

Sample Size

Using Taro Yamane's (1967) formula at a 5% margin of error, a sample size of 400 respondents was determined. A multistage sampling approach was adopted to ensure representation across the three senatorial districts of Benue State. This involved cluster sampling, simple random sampling, purposive sampling, and convenience sampling. In large-scale survey research where community-level demographic data are unavailable, higher administrative population units are often used to determine sample size, while actual respondent selection occurs within purposively selected clusters (Memon et al., 2022).

The sampling proceeded in five stages. First, the state was clustered into three senatorial zones: Benue North-West, Benue North-East, and Benue South. Second, one local government area was randomly selected from each zone: Gboko, Katsina-Ala, and Agatu. Third, one community was purposively selected from each LGA: Ankpa in Gboko, Yooyo in Katsina-Ala, and Akolo in Agatu. Fourth, questionnaires were distributed proportionately: 155 in Gboko, 140 in Katsina-Ala, and 105 in Agatu, making a total of 400 respondents. Fifth, within each community, respondents were conveniently selected based on availability in homes, markets, schools, and workplaces.

This procedure ensured representation of women from different social, educational, and occupational backgrounds. The main instrument for data collection was a structured questionnaire designed by the researcher. It contained closed-ended and Likert-type items arranged into sections covering demographic data and the major study variables: knowledge, attitude, and practice of breast cancer communication guidelines. The instrument was validated by experts in mass communication and public health communication, while reliability was tested through the test-retest method, which yielded consistent responses. Copies of the questionnaire were administered face-to-face with the help of trained research assistants familiar with the local languages and cultural context of the communities. This interpersonal approach enhanced response accuracy and completion rates. Respondents were assured of confidentiality and informed that participation was voluntary.

The data were analysed using both quantitative and qualitative approaches. Quantitative data were coded and processed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as frequency tables, percentages, means, and charts were used to summarize responses to the research questions. Qualitative observations from open-ended responses provided context for interpreting the statistical results. Together, these methods offered a comprehensive understanding of women's knowledge, attitude, and practice regarding breast cancer communication guidelines in Benue State

Data Presentation

Table 1: Demographic Characteristics of Respondents

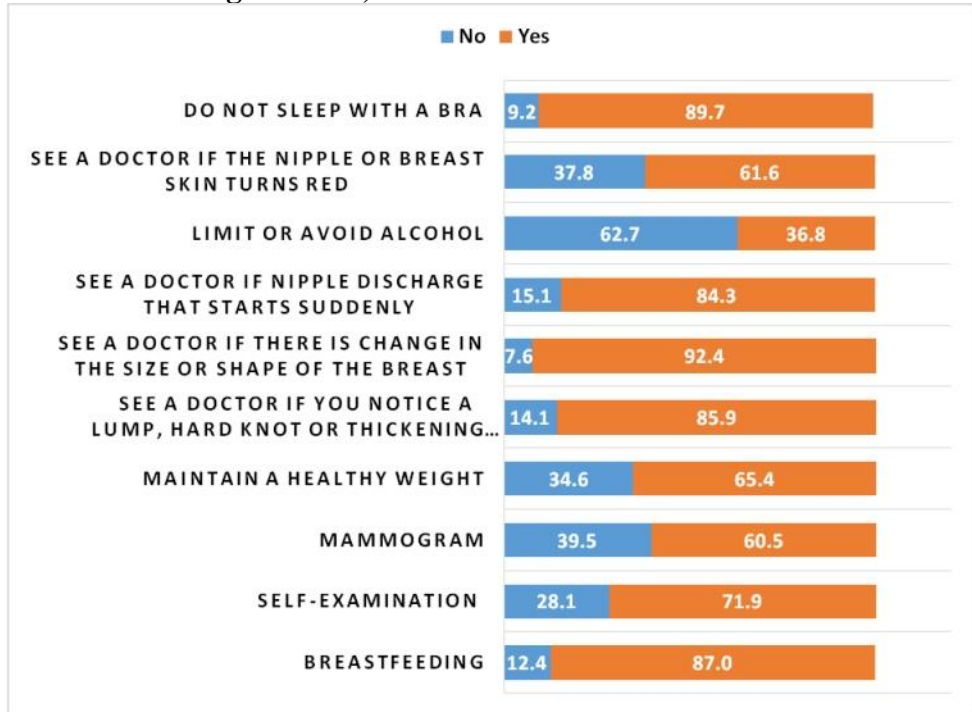
Variable	Category	Frequency	Percentage (%)
Age	20–30 years	40	21.6
	31–40 years	100	53.8
	41 years and above	46	24.6
Marital Status	Single	59	31.7
	Married	106	56.8
	Divorced/Widowed	21	11.5
Education	Secondary	38	20.5
	Diploma/NCE	42	22.7
	Bachelor's degree	85	45.9
	Post graduate	21	10.9

Source: Researcher's Field Survey, 2025

The data show that most respondents were aged 31–40 years, were married, and possessed at least a diploma or bachelor's degree. This suggests that the respondents were mature enough to make health-related decisions and sufficiently literate to understand breast cancer information disseminated through different communication channels.

Research Question One

Horizontal bar chart showing level of knowledge of breast cancer communication guidelines, women in Benue State?



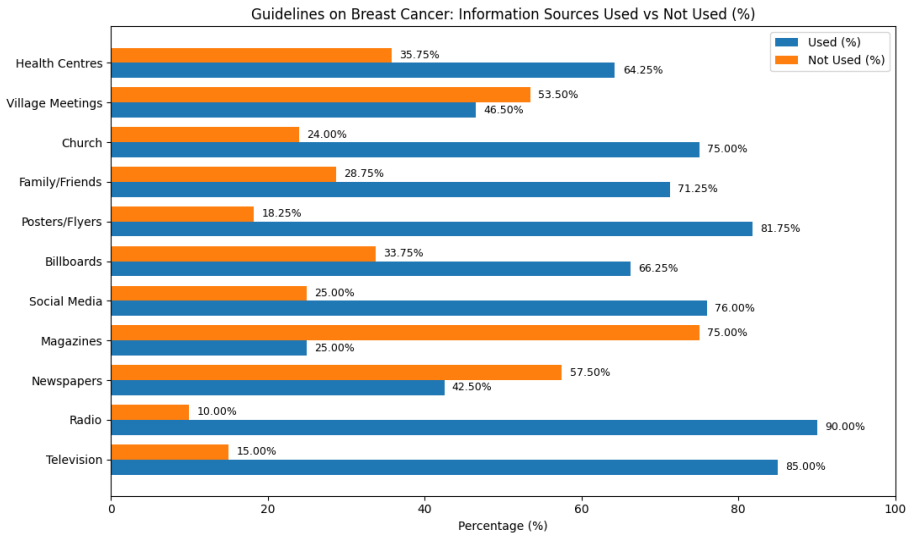
Source: Researcher’s Field Survey, 2025

Average Mean: 3.

Overall, the findings suggest that women in Benue State possess a high level of knowledge of most breast cancer communication guidelines, particularly those related to symptom recognition and medical consultation. However, knowledge of lifestyle-related preventive measures remains comparatively lower.

Research Question 2

Information on the media through which women in Benue State receive communication guidelines on breast cancer



Source: Researcher’s Field Survey, 2025

This table reveals that Television and radio are the dominant channels for breast cancer communication, followed by posters and social media, followed by the Church. Traditional community channels such as village meetings were less utilized, suggesting that mass media remain the primary means of disseminating health messages in Benue State.

Research Question 3

Attitude of Benue State women towards breast cancer communication guidelines?

Attitudinal Statement	Strongly Agree (%)	Agree (%)	Undecided (%)	Disagree (%)	Strongly Disagree (%)	Mean
I consider the guidelines as real and important	46.5	40.8	5.2	4.9	2.6	3.86
I take time to understand	41.3	38.7	8.1	7.0	4.9	3.74

breast cancer messages						
I feel indifferent about breast cancer messages	10.9	22.6	12.7	33.5	20.3	2.69
I often forget the messages after some time	12.5	24.4	9.9	31.2	22.0	2.75
I discuss breast cancer messages with others	33.0	42.9	10.4	8.3	5.5	3.79

Source: Researcher's Field Survey, 2025

Average Mean: 3.37

Most respondents held a positive attitude toward breast cancer communication guidelines, agreeing that they are real and worth paying attention to. However, a notable proportion admitted indifference or forgetfulness, indicating that while acceptance is high, attitudinal reinforcement and behavioural engagement are still limited.

Research Question 4

Respondents' level of practice of breast cancer communication guidelines.

Practice Item	Yes (%)	No (%)	Neutral (%)	Don't Know	Mean
I perform breast self-examination monthly	26.2	53.2	10.5	10.1	2.10
I go for clinical breast examination regularly	12.2	56.2	14.3	17.3	1.95

I have ever done a screening mammogram	9.1	58.5	15.3	17.1	1.87
I promptly consult a doctor for any breast change	60.4	30.4	10.4	0	3.31
I limit alcohol intake as a preventive measure	39.3	50.0	8.0	2.7	2.79
I encourage other women to go for screening	33.2	46.4	12.5	8	2.52

Source: Researcher's Field Survey, 2025

Average Mean: 2.42

The results reveal low levels of practice among women in Benue State. Although knowledge is relatively high, regular screening, mammography, and clinical check-ups remain low. This reflects the pattern reported in similar Nigerian studies, where awareness does not always translate into behavioural change because of cultural beliefs, fear, financial constraints, and poor access to screening facilities (Oluodo et al., 2025).

Discussion of Findings

Respondents demonstrated substantial exposure to breast cancer messages, particularly through television, radio, and health centres. This aligns with Oparaugo (2021), who argues that mass media remain central to public health communication because of their wide reach and repeated messaging. The relatively high exposure to guidelines encouraging early detection, such as seeking medical attention when lumps or abnormal breast changes are noticed, suggests that communication campaigns in Benue State have achieved considerable reach.

However, important knowledge gaps remain, especially with respect to lifestyle-related risk factors such as alcohol consumption. Only 36.8% of women knew that alcohol is a risk factor. This supports Fajoyomi's (2019) observation that awareness of behavioural risk factors remains low among Nigerian women despite growing media campaigns. Attitudes toward the messages are generally positive, but indifference and low perceived susceptibility appear to weaken behavioural adoption. Oluwatosin et al. (2021) observed similar trends, where women acknowledged the importance of early detection but did

not feel personally at risk, thereby reducing their likelihood of acting on the information. This highlights the need for communication strategies that strengthen perceived susceptibility, personalize risk, and address emotional barriers such as fear and denial.

Practice levels were found to be low, especially for screening mammography and clinical breast examination. This may be linked to fear of diagnosis, cultural constraints, and economic limitations. Similarly, WHO (2018; 2020) notes that in many low- and middle-income countries, women often present at advanced stages of the disease despite awareness campaigns. Jedy-Agba et al. (2012) also identified cost, fear, cultural beliefs, and limited access to screening facilities as major contributors to late presentation in Nigeria.

These findings can be interpreted through the Health Belief Model (HBM) and the Theory of Planned Behaviour (TPB). Although respondents demonstrated high exposure to breast cancer communication messages and substantial knowledge of symptom recognition, the low level of consistent preventive practice suggests that awareness alone is insufficient to produce behavioural change. From the perspective of the HBM, high knowledge of symptoms and early detection reflects the presence of perceived benefits and cues to action. Exposure through television, radio, and health centres likely served as external triggers that increased awareness. However, the persistence of low screening behaviour points to weaknesses in other HBM constructs, especially perceived susceptibility and perceived barriers.

The finding that many women acknowledged the importance of screening but did not feel personally at risk reflects low perceived susceptibility, which is a core determinant of preventive action in the HBM. Low awareness of alcohol as a risk factor further supports this explanation. While symptom-based messages appear to have been well communicated, lifestyle-related risk factors were less internalized. This suggests selective knowledge acquisition, in which visible symptom-related messages are better retained than those requiring lifestyle adjustment. Such a gap weakens comprehensive preventive behaviour.

The findings also align with the TPB. According to the theory, behaviour is predicted by intention, which is shaped by attitude, subjective norm, and perceived behavioural control. Although respondents expressed generally positive attitudes toward screening,

attitude alone is insufficient when subjective norms and perceived control are weak. In the Benue context, cultural expectations, gender relations, and spousal influence may shape subjective norms in ways that subtly discourage proactive screening behaviour. If women perceive that screening is not socially emphasized or supported, intention formation may be weakened. This is a gap that a follow-up study can address.

More importantly, perceived behavioural control appears to be a major limiting factor. Even when attitudes are favourable, women who perceive screening services as expensive, inaccessible, or difficult to navigate may feel that the behaviour is beyond their control. TPB holds that when perceived control is low, both intention and actual behaviour decline. This helps explain the especially low uptake of mammography and clinical breast examination despite awareness campaigns

In summary, out of 400 distributed questionnaires, 385 were returned and analysed. The study found that women in Benue State are knowledgeable about symptom recognition and are highly exposed to breast cancer communication guidelines, mainly through television and radio, followed by social media and posters. Attitudes are largely positive, but not strong enough to produce consistent preventive behaviour. This is reflected in the low practice level, especially in relation to regular clinical screening and mammography

Conclusions and Recommendations

The study concludes that although breast cancer communication guidelines are widely disseminated and women in Benue State are generally aware of them, this knowledge does not translate into adequate preventive practice. The findings support the assumption of the Health Belief Model that knowledge alone is insufficient for behaviour change unless accompanied by strong perceived susceptibility, perceived benefits, and minimal barriers. Mass media have succeeded in raising awareness, but the content and presentation of the messages are not consistently strong enough to drive sustained behavioural change. There is therefore a clear need for more targeted, culturally sensitive, and behaviour-oriented health communication initiatives that move beyond awareness creation to encourage sustained preventive practices among women.

Based on the findings, the following recommendations are made:

Based on the findings, health communication on breast cancer in Benue State should move beyond general awareness to more behaviour-oriented messaging that clearly explains why screening matters and how women can practise it regularly. Such messages should emphasize personal risk, the benefits of early detection, and the practical steps involved in breast self-examination and clinical screening. In addition, communication efforts should be expanded beyond radio and television to more community-based and interpersonal platforms such as churches, women's groups, markets, health centres, and other social spaces where women can engage more directly with the message. At the same time, digital channels, should be used alongside traditional media so that women with different literacy levels and media access are not excluded.

Furthermore, breast cancer communication should make greater use of survivor narratives. Testimonies shared through radio discussions, community forums, and short digital audio or video formats can help reduce fear, challenge stigma, and correct cultural misconceptions. Because survivor stories are relatable and emotionally persuasive, they can encourage women to see breast cancer as a condition that can be managed when detected early. Similarly, local languages should be incorporated more deliberately into communication efforts. Although this study did not specifically examine language use, existing studies show that local language strengthens meaning and audience connection. Presenting breast cancer messages in Tiv, Idoma, Igede, and Pidgin English would likely improve understanding, relevance, and message retention, especially among women in rural and peri-urban communities.

Finally, technology for development should be leveraged to sustain continuous education and behavioural reminders. Low-cost tools such as bulk SMS, WhatsApp voice notes, and short educational clips can serve as regular prompts for breast self-examination and information about available screening opportunities. In this way, communication can move from one-time awareness creation to continuous reinforcement of preventive health behaviour.

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