CORRELATES OF ATTITUDE TOWARDS CANCER AMONG AKUNGBA-AKOKO RESIDENTS OF ONDO STATE, NIGERIA.

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Abstract
Cancer remains a leading cause of morbidity and mortality worldwide, accounting for nearly one in every six deaths. Despite medical advances, low- and middle-income countries like Nigeria continue to experience poor awareness, negative attitudes, and weak preventive practices, especially in semi-urban and rural communities. Akungba-Akoko in Ondo State is one such community where limited health infrastructure, cultural misconceptions, and inadequate education increase vulnerability to cancer. This study examined the attitudes of Akungba-Akoko residents toward cancer and assessed how socio-demographic factors influence their responses. The research was prompted by the rising cancer burden in Nigeria, where many cases are diagnosed late due to misinformation, fear, and poor health-seeking behaviour. Mixed-methods design was adopted. Quantitative data were gathered from 366 adult residents through questionnaire instrument, while qualitative insights were obtained from 15 key informant interviews, comprising healthcare workers, traditional leaders, and community elders. Quantitative data were analysed using descriptive and inferential statistics, while thematic analysis was used to analyse the qualitative data. Three and sixty-six (366) residents participated, with equal representation of males and females. Most respondents were aged 25–34 years. Most of the respondents were between secondary and tertiary education. Majority were Christians, followed by Muslims a small proportion practiced African Traditional Religion (ATR). The study found that attitudes toward prevention and treatment were largely neutral to moderately positive, but stigma and fear persisted. Cultural and religious beliefs also shaped attitude, with some attributing cancer to spiritual causes. Based on the findings, the study recommends culturally tailored health education, involvement of traditional and religious leaders in awareness efforts, and improved access to affordable cancer screening services in semi-urban Nigerian communities.

Keywords: Cancer, attitudes, residents, socio-demographic factors, health-seeking.

Introduction and Brief Literature Objective

In Nigeria, cancer remains a major public health concern, with breast, cervical, and prostate cancers being the most prevalent (Globocan, 2020). Despite advancements in cancer treatment and early detection, disparities in attitude toward cancer persist, particularly in low- and middle-income countries (LMICs), including Nigeria (Effiong, Uruntie, Udoh, 2024; Osaro Osaro, Ben-Osaro, Ikewelu, Abbi, Agbanyim, Alale, and Atelibo, 2024). Many factors contribute to these disparities, such as inadequate awareness, cultural beliefs, economic constraints, and limited access to healthcare services (Bray, Ferlay, Soerjomataram, Siegel, Torre, & Jemal, 2018).

Studies indicate that a significant proportion of Nigerians have wrong attitude towards the knowledge about cancer risk factors, symptoms, and preventive measures (Odetola, 2021). this, coupled with socio-cultural myths, often leads to poor health-seeking behaviour and delayed diagnosis, ultimately reducing survival rates (Adebamowo, Ajayi, & Akinsola, 2019). Moreover, according to Eze, Nwafor and Opera (2020) it was argued that the burden of cancer in Nigeria is further increased by inadequate healthcare infrastructure, high treatment cost and a shortage of oncology specialist.

Communities like Akungba often face unique public health challenges due to believe that cancer is a form of spiritual punishment or a disease caused by supernatural forces, leading them to seek traditional healing methods rather than modern medical treatments (Onyeka, Nwosu, & Eze, 2018). Such misconceptions hinder early diagnosis and treatment, increasing the likelihood of adverse health outcomes. In response to such beliefs, scholarly findings emphasize the importance of culturally sensitive educational interventions that will lead to behavioural modification. These strategies have proven effective in addressing traditional misconceptions and significantly improving health-seeking behaviours and public responsiveness to cancer screening and early treatment services (Iwelunmo, Blackstone, Veira, Nwaozuru, Airhihenbuwa, & Jemmott, 2019; Anyanwu, Okonkwo, & Onwuliri, 2021).

Despite global efforts to raise cancer awareness and positive attitude towards prevention and treatment, many African populations, including communities in Nigeria, continue to demonstrate negative attitude towards knowledge and preventive practices, a rising burden of cancer is further complicated by poor attitude to public awareness, and health-seeking behaviour. Moreover, many cancers in Africa are associated with avoidable environmental and lifestyle-related risk factors such as tobacco use, alcohol consumption, physical inactivity, poor diet, and obesity (Bray, Jemal, Grey, Ferlay, and Forman, 2012; Sipila, Gondwe, and Moore, 2023). However, efforts toward proactive prevention through education and behaviour change remain grossly inadequate.

Akungba-Akoko, a rapidly developing rural community (because it hosts the state-owned university) in Ondo State, Nigeria is not exempted from these challenges. The increase in people and exposure to evolving lifestyles, that is, adopting the western lifestyle, coupled with persistent traditional beliefs, raises concerns about how well residents understand cancer and their readiness to adopt preventive behaviours. Despite the evidence that early detection and preventive strategies can reduce cancer incidence and mortality significantly, many individuals still hold cultural and religious beliefs that influence their health choices, which increases the patronizing the traditional and spiritual healers rather the medical facilities. This reflects a broader national issue within the country, where negative attitudes contribute to poor cancer prevention practices (Nnodu et al., 2010). Yet, there is limited empirical data assessing the current attitudes toward cancer among this population.

Accordingly, this study investigated the attitudes of Akungba residents toward cancer, with an identified critical gap and informing future intervention strategies aimed at improving cancer awareness and prevention in the region.

Objective

The following are the specific objectives of the study

1. To examine the attitudes of Akungba-Akoko residents toward cancer prevention, screening, and treatment
2. To determine the predictive strength of Socio-demographic factors on the attitude of the residents towards cancer

Methodology

The study adopted a mixed method research design involving survey and the use of qualitative technique for data collection from respondents. For the

quantitative method, a total of 366 respondents were selected through a multi-stage sampling techniques for the administration of survey questionnaire from the study area. Akungba-Akoko is a semi urban community that has host the state-owned University since 1999. This permitted ready access to male and female individuals of diverse categories. The sampling cut across the two wards and 28 polling units that make up the community for proper representation. The questionnaire was titled "Akungba Residents' Cancer Knowledge, Attitude, and Practice Questionnaire" (ARCKAPQ). The instrument's reliability coefficient was of 0.60. Purpose sampling was employed to select respondents. Key Informant Interview (KII) was the qualitative method adopted for the study. Purposive and snowball sampling techniques were used for qualitative data collection, targeting key informants comprising of healthcare professionals, religious leaders and community leaders who possess specialized knowledge on cancer-related issues. A total of 15 KII interview sessions were conducted. The quantitative data were analysed using STATA (version 15) at univariate, bivariate and multivariate levels, while thematic analysis was employed to analysed data collected from the KII sessions.

Theoretical Framework.

This study is anchored on the Health Belief Model (HBM) developed in the year 1950 by social psychologists Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels of the U.S. Public Health Service. These psychologists designed the model to explain and predict health-related behaviours by focusing on individual attitudes and beliefs.

Health Belief Model (HBM)

The Health Belief Model (HBM) is one of the earliest and most widely used theory in health behaviour research. The model emerged in the bid to understand why people do or do not engage in disease prevention and health-promoting behaviours. HBM suggests that a person's decision to take action for their health depends on their personal beliefs about health conditions. These beliefs include how serious they think a condition is, how likely they are to get it, the benefits of taking action, and the barriers that may stop them. It also considers cues to action (like symptoms or advice) and self-efficacy (confidence in their ability to act).

The model provides a useful framework for examining how individuals' beliefs influence their cancer-related knowledge, attitudes, and practices. The theory posits that people are more likely to adopt preventive health behaviours when they perceive themselves as susceptible to a disease, believe the disease has serious consequences, recognize the benefits of taking preventive action, and perceive minimal barriers to taking such action (Rosenstock, 1974; Janz and Becker, 1984). In the context of this study, the HBM helps to explain why individuals in Akungba-Akoko community may fail to engage in cancer-preventive behaviours despite having access to health information. For instance, the actions of an individual who is aware of cancer risks and symptoms, may be influenced by denial, fear, or underestimation of personal risk. Research works in Nigeria point to this situation. Adefuye, Adeniran, and Adediran (2019) observed that although many women had knowledge of breast cancer, fear of diagnosis often delayed screening. Likewise, Chukwuka et al (2020) found that widespread awareness of cervical cancer did not necessarily translate into practice, as fear of pain and misbeliefs about screening deterred women. Thus, in the context of Akungba, the HBM underscores how both perceived threat and perceived barriers may shape community's response to cancer-related health-seeking behaviour.

Results

Attitudes of Akungba-Akoko Residents Toward Cancer Prevention, Screening, and Treatment.

Positive attitudes encourage preventive actions like screening, while negative ones reinforce stigma and reliance on unethical beliefs. The respondents were categorized into negative, neutral and

positive attitude based on their responses to Likert scaled questions. Table 1 shows the distribution of respondents' attitudes toward cancer.

Table 1: Percentage and Frequency distribution showing Attitude Levels of Respondents About Cancer (N = 366)

Attitude Level	Frequency	Percent (%)
Negative	2	0.6
Neutral	204	55.7
Positive	160	43.7
Total	366	100

Table 1 indicates that the majority exhibited a neutral disposition. Out of 366 respondents, (55.7%) demonstrated a neutral attitude, while (43.7%) expressed a positive attitude. Only respondents (0.6%) held a negative attitude towards cancer, indicating that negative perceptions are minimal among the study population.

This suggests that, overall, respondents tended towards a moderately positive orientation in their attitudes toward cancer. However, the survey findings showed a mix of positive and negative attitudes toward cancer prevention and treatment among the residents, shaped largely by limited awareness, cultural beliefs, stigma, and reliance on traditional or religious practices. While some participants indicated a willingness to seek medical care, a substantial number expressed hesitation rooted in fear, stigma, and cultural perceptions. The qualitative results give deeper insight into this ambivalence.

About eleven interviewees described cancer as a death sentence, instilling intense fear that discourages many from seeking early diagnosis. As one woman explained,

> *"Many people don't want to go for cancer tests because once you hear cancer, it means death is near. It is better not to know than to live with fear." (45 years, Trader).*

Similarly, stigma emerged as a major barrier to care, as about six interviewees perceive cancer as a shameful disease, leading to silence and avoidance of medical treatment. As one community elder explained:

> *"Cancer is also believed to be a shameful disease; if affected by the disease, women tend to keep quiet……. rather, they would like to go to traditional healers or spiritual healers for treatment."* (65 years, Community Elder)

This stigma prevents open conversations and discourages individuals from seeking timely medical care.

Furthermore, cancer was frequently linked to cultural interpretations and a strong reliance on traditional healers, as eight interviewees associated cancer with witchcraft or spiritual attack, which directs people towards traditional healers and herbal remedies instead of hospitals. A traditional healer noted:

> *"I believe strongly that cancer is caused by unhealthy foods and an unhealthy lifestyle, and at times, has the influence of witches and witchcraft… I still maintain my stand that traditional medicine is more effective than orthodox medicine when it comes to treating cancer." (60 Years Traditional Healer)*

Similarly, a medical practitioner confirmed this belief exists strongly in the community:

> *"There is this cultural belief that cancer can occur through spiritual attack or witchcraft… they like to treat it using traditional healers, religious means, or local and natural herbs."*

(42 Years Medical Practitioner).

Among the interviewees, there was a consensus that the biomedical knowledge of cancer is poor, and awareness campaigns are rare. One elder admitted:

> *"Currently, we lack awareness. I don't think as a leader I've attended one health talk and awareness before, if not the television programme I normally engage in."* (65 years, Community Elder)

Another elder even asked if cancer was communicable, showing the depth of misinformation:

> *"Is cancer a communicable disease? Can I be affected by cancer if I visit someone who is battling cancer?" (60 Years community Leader)*

Similarly, an Akungba community chief explained that he had never attended any cancer sensitization as long as he has been a community leader:

> *"There has never been any time that we have had any officials who are knowledgeable about cancer come and talk to us about cancer before." (72 Years Community Chief and Traditional healer)*

Therefore, participation in screening was extremely low, because, the participants couldn't recall any cancer screening ever being organised within the community.

Additionally, religious practices were found to play a significant role among Akungba residents, shaping their responses to cancer. Almost all interviewees emphasized that religious leaders provided care and prayer for cancer patients, although they also acknowledged that ignorance regarding biomedical treatment persists. A pastor noted:

> *"Many people believe that cancer is a spiritual attack or a spiritual arrow from the kingdom of darkness… I am not in support of this notion… anyone affected must first go and see his or her doctor for proper treatment." (65 Years Orthodox church Pastor).*

In contrast, two clerics stressed that their religious beliefs did not discourage medical treatment and, in some cases, we also provide material and financial support. A Muslim cleric explained:

> *"Our religion did not prevent people from seeking medical treatment… we also helped them in terms of money, care, and spiritual needs." (53 years, Muslim Cleric)*

Furthermore, some interviewees noted supportive attitudes once a patient is diagnosed. One interviewee, who lost his mother to breast cancer, shared:

> *"Church people supported her with funds. Family members also supported her. That's all I can say."* (*27 Years* interviewee)

This suggests that while stigma exists, social and religious groups are also providing vital emotional and financial support to the people affected by cancer in the community.

In summary, analysis of Akungba residents' attitudes toward cancer prevention, screening, and treatment reveals a complex and ambivalent pattern. Quantitatively, the results indicated mixed attitudes, with some respondents showing willingness to engage in preventive practices while others expressed reluctance. The qualitative evidence deepens this understanding, demonstrating that fear of diagnosis, stigma, and entrenched cultural or religious beliefs remain powerful barriers. Many residents continue to interpret cancer as a spiritual condition and turn

first to prayer, herbal remedies, or traditional healers, while hospital visits are often delayed until symptoms worsen. At the same time, signs of openness to biomedical care were observed, particularly among younger, educated, and health-conscious individuals, who stressed the importance of early detection and treatment. However, limited sensitization programmes, low awareness, and economic challenges constrain broader community engagement.

Influence of Socio-Demographic Factors on Attitudes, toward Cancer among Akungba-Akoko Residents.

The study also examined how socio-demographic factors such as age, gender, education, occupation, and income influenced these outcomes. This step was necessary to understand whether variations in attitudes could be explained by respondents' background characteristics. Ordered logistic regression was therefore employed to for the purpose of this analysis. The results are presented in Tables 2.

Table 2: Ordered Logistic Regression Predicting Attitude Level (N = 366)

Predictor	Coef. (B)	Std. Error	Z	p-value	95% CI (Lower)	95% CI (Upper)
Gender	-0.91	0.24	-3.88	0.000	-1.38	-0.45
Age group	0.25	0.15	1.64	0.101	-0.05	0.54
Marital status	0.13	0.27	0.50	0.618	-0.39	0.66
Education	0.94	0.21	4.49	0.000	0.53	1.35
Religion	-0.56	0.23	-2.43	0.015	-1.01	-011.
Occupation	-0.13	0.18	-0.70	0.485	-0.49	0.23
Income	-0.56	0.18	-3.21	0.001	-0.91	-0.22

Note.
Model Fit:
Log likelihood = -236.87
LR $\chi^2(7) = 50.36$, $p < .001$
Pseudo $R^2 = 0.096$

Table 2 depicts the ordered logistic regression analysis of socio-demographic variables on respondents' attitudes toward cancer prevention strategies (N = 366). The model was statistically significant, LR $\chi^2(7) = 50.36$, $p < .001$, with a pseudo R^2 of 0.096, indicating that the predictors explained approximately 9.6% of the variance in attitude levels.

The results showed that gender, education, religion, and income were significant predictors of attitude. Specifically, being male was associated with less positive attitudes toward cancer prevention, B = -0.91, SE = 0.24, z = -3.88, $p < .001$, 95% CI [-1.38, -0.45]. Respondents with higher levels of education demonstrated significantly more positive attitudes, B = 0.94, SE = 0.21, z = 4.49, $p < .001$, 95% CI [0.53, 1.35]. The results further revealed that religion had a significant effect on attitude toward cancer. The Muslims and African Traditional Religion (ATR) religious groups demonstrated more negative attitudes toward cancer compared to their Christian counterparts, who served as the reference group (B = -0.56, SE = 0.23, z = -2.43, p = .015, 95% CI [-1.01, -0.11]). On the other hand, participants with lower income levels tended to exhibit less positive attitudes toward cancer prevention, whereas those with higher income levels demonstrated more positive perspectives. In contrast, age group (B = 0.25, p = .101), marital status (B = 0.13, p = .618), and occupation (B = -0.13, p = .485) showed no significant association with attitude levels.

Discussion

The outcome of this research revealed that there is variation in awareness which means some residents have a biomedical understanding of cancer,

while many others hold partial, distorted, or culturally influenced perceptions and attitude. The findings on the attitudes of Akungba-Akoko residents toward cancer prevention, screening, and treatment revealed that the majority of the residents displayed a neutral attitude toward cancer, and this suggests that negative perceptions are minimal, while indifference and lack of strong commitment remain prevalent among the community. The investigation further confirmed that attitudes in the community were shaped by stigma, religious and spiritual interpretations, and inadequate exposure to health sensitisation programs. These results are consistent with studies across Nigeria and sub-Saharan Africa, which have highlighted how cultural and religious misconceptions, stigma, and misinformation contribute to silence and fear around cancer. For instance, Aniebue and Onyema (2018) in Enugu, Githua and Karanja (2021) in Kenya, and Okoronkwo, Onyejekwe, and Uzochukwu (2015) in southeastern Nigeria, all reported that many community members perceive cancer as linked to witchcraft, curses, or spiritual punishment, which discourages openness and people from seeking early treatment. Similarly, Oladimeji, Tsoka-Gwegweni, and Igbodekwe (2015) found that fatalistic beliefs in rural Ekiti reduced women's willingness to undergo screening, while Ackerson and Gretebeck (2007) observed similar trends in immigrant populations in the United States. These align with the Akungba findings, where many residents expressed fear, stigma, shame, or silence when faced with cancer.

Additionally, Religion and tradition were also significant influences on attitudes. In Akungba, residents often relied on spiritual healers, herbal remedies, and prayer, this finding resonates Ogunrin (2016) in south-western Nigeria and Asuzu & Akin-Odanye (2012) across sub-Saharan Africa, both of whom documented widespread reliance on religious and traditional pathways before hospital care. However, the study also highlighted that not all religious leaders discouraged medical treatment. Some clerics clarified that their faith encouraged hospital visits alongside prayer, and social and religious groups were often sources of financial and emotional support for cancer patients. This duality, where religion both hinders and supports medical engagement, align with the study by Adejumo, Olayemi, and Dada (2021) in Ondo State and Okoronkwo et al. (2021) in Nsukka, who observed that social expectations and religious influences could both reinforce stigma and provide community solidarity.

Conclusion and Recommendations

Overall, the findings of the study demonstrated that while overtly negative attitudes are rare, neutrality, stigma, spiritual beliefs, and misinformation remain dominant influences on cancer-related attitudes. However, the supportive role of religious and social groups observed in the community suggests opportunities for culturally sensitive interventions that integrate community leaders, traditional healers, and religious figures to shift attitudes toward more biomedical and preventive orientations. Moreover, the evidence suggests that education promotes positive attitudes while age and gender shape perceptions through cultural and experiential lenses, but their impact appears secondary. Collectively, these results emphasize that addressing cancer prevention in Akungba-Akoko requires interventions that are education-driven, financially inclusive, and culturally sensitive.

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