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SOCIO-CULTURAL FACTORS INFLUENCING THE PRACTICE OF CERVICAL CANCER SCREENING AMONG WOMEN IN ANTENATAL AND POST NATAL CLINIC IN DALHATU ARAF SPECIALIST HOSPITAL LAFIA, NASARAWA STATE, NIGERIA

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ABSTRACT: Cervical cancer continues to be a substantial health issue for women worldwide, with a particularly high burden in low-resource settings where access to preventive care is often limited. Although screening is an effective, cost-efficient way to reduce cervical cancer incidence and improve outcomes, the rate of screening in the study area remains low. This research aimed to examine the socio-cultural factors affecting cervical cancer screening practices among women attending antenatal and postnatal care at Dalhatu Araf Specialist Hospital, Lafia, using the Health Belief Model. A mixed-methods approach was employed, incorporating surveys and in-depth interviews to gain a nuanced understanding of the determinants influencing screening behaviour. Quantitative data were analysed using SPSS version 25.0, while qualitative responses were organised thematically. The study found that, although awareness of cervical cancer was high among respondents, numerous barriers limited screening uptake. Factors such as a low perceived personal risk of cervical cancer, financial constraints, spousal approval, fear of a positive diagnosis, lack of information about available screening facilities, religious beliefs, discomfort with male healthcare providers, and overall lack of awareness of screening benefits all impacted women's willingness and ability to engage in screening practices. These findings show a complex interplay of personal beliefs, socio-economic challenges, cultural norms, and healthcare system limitations that collectively discourage regular screening. To address these barriers, the study recommends focused educational campaigns that clarify screening benefits, community advocacy to increase awareness, improved accessibility to screening services, healthcare provider training, and engagement with community leaders to foster supportive attitudes toward screening.

Keywords: Cervical Cancer, Women, Culture, Social, Practice

INTRODUCTION

Cervical cancer has become a pressing health issue for women globally, standing as the fourth most common cancer among women (WHO, 2018). In 2018, the World Health Organization (WHO) reported approximately 570,000 new cases and 311,000 deaths from cervical cancer worldwide (Bray et al., 2018). Unfortunately, this trend has only worsened, with over 600,000 new cases and more than 340,000 deaths reported in 2020 (Bruni et al., 2021). While cervical cancer affects women across the globe, it places a disproportionately heavy burden on low- and

middle-income countries, especially in Sub-Saharan Africa, where mortality rates remain the highest (Fitzmaurice et al., 2015; Desta et al., 2021).

Nigeria faces a significant challenge with cervical cancer, which ranks as the second most common cancer among Nigerian women aged 15 to 44 (Ferlay et al., 2020). With over 14,000 new diagnoses and more than 20 deaths reported each day, the impact on Nigerian women's health is profound (Ferlay et al., 2020). Furthermore, Nigeria has one of the highest rates of human papillomavirus (HPV)-related diseases in Sub-Saharan Africa, with studies indicating a high prevalence of HPV infection among Nigerian women (Aminu et al., 2014; Adegbesan et al., 2014; Okunade et al., 2017). HPV infection is the primary cause of cervical cancer, with high-risk HPV types—particularly HPV 16 and 18—responsible for approximately 70% of all cases (Mendes Lobão et al., 2018; Pichainarongk et al., 2018). Although effective prevention and control strategies, such as vaccination against HPV and cervical cancer screening, are recommended by the WHO, implementing these interventions in low-resource settings like Nigeria poses significant challenges (WHO, 2020). While developed countries have witnessed a decline in cervical cancer incidence and mortality due to widespread vaccination and screening programs, many developing nations struggle to implement effective preventive measures. In Nigeria, barriers such as low awareness, insufficient knowledge, cultural beliefs, and inadequate access to screening services hinder efforts to combat cervical cancer effectively (Assoumou et al., 2015).

This study arises from the pressing need to address the consistently low rates of cervical cancer screening at Dalhatu Araf Specialist Hospital in Lafia, Nasarawa State, Nigeria. Cervical cancer poses a major public health threat in Nigeria, marked by high morbidity and mortality rates, especially among women attending antenatal and postnatal clinics. Although screening services are available, cervical cancer prevalence remains troublingly high, reflecting a gap in effective preventive healthcare practices. Accordingly, this study aims to identify and analyse socio-cultural factors that influence cervical cancer screening practices among women at antenatal and postnatal clinics in Dalhatu Araf Specialist Hospital, Lafia, Nasarawa State, Nigeria.

LITERATURE REVIEW

A review of previous studies on factors affecting cervical cancer screening uptake reveals a range of perspectives spanning socio-cultural, psychological, economic, and healthcare system-related influences. A deep understanding of these factors is essential for crafting targeted interventions that can boost screening rates and, in turn, help reduce the overall burden of cervical cancer. However, these barriers must be understood in relation to the unique socio-cultural context of the study population to inform more effective interventions.

Socio-cultural factors significantly shape attitudes and behaviours surrounding cervical cancer screening. Cultural beliefs, societal norms, and religious practices are deeply intertwined with how individuals perceive health, illness, and healthcare-seeking behaviours. For example, in many African contexts, cultural taboos surrounding reproductive health, modesty concerns, and a preference for female healthcare providers can discourage women from participating in cervical cancer screening, especially in more conservative communities (Modibbo et al., 2016). These taboos are often compounded by the stigma surrounding cervical cancer, which is perceived as a "silent killer," creating a barrier to women seeking out screening services for fear of a positive diagnosis or disclosure of results (Lim et al., 2013).

However, studies specific to Sub-Saharan Africa, including Nigeria, have highlighted variations in how these socio-cultural factors manifest in different settings. For instance, women attending antenatal and postnatal clinics at Dalhatu Araf Specialist Hospital, Lafia, Nasarawa State, Nigeria, may face particular cultural challenges. While broader regional studies indicate a general reluctance towards cervical cancer screening due to cultural beliefs, local studies—such as those conducted in rural Nigeria—have found that modesty concerns, a lack of knowledge about the link between human papillomavirus (HPV) and cervical cancer, and misconceptions about the screening procedure are more prevalent in rural settings (Ndejjo et al., 2017). Additionally, limited studies focusing on antenatal and postnatal clinics in similar populations have suggested that women in these settings may also hold misconceptions about the timing and necessity of cervical cancer screening, prioritizing maternal and child health needs over preventive cancer screenings.

Psychological factors also play a critical role. Fear and anxiety—particularly regarding the screening procedure itself, the possibility of a positive diagnosis, and the potential implications of a cancer diagnosis—can be powerful deterrents to screening (Ndejjo et al., 2017). These fears are often intensified in low-resource settings where access to diagnostic and follow-up care may be limited. Perceptions of personal susceptibility to cervical cancer—shaped by family history or awareness of symptoms—are further compounded by a general lack of awareness about cervical cancer in many Sub-Saharan African communities. Studies in Uganda (Ndejjo et al., 2017) and Ghana (Tetteh et al., 2019) found that awareness campaigns significantly increased screening uptake, highlighting the importance of targeted education in alleviating psychological barriers. However, this localized study will explore whether similar perceptions exist among women attending antenatal and postnatal clinics in Nigeria, where healthcare information may be more restricted.

Economic constraints further complicate access to screening. Limited financial resources create barriers to affording screening costs, transportation, and potential follow-up care expenses (Oluwole et al., 2017). Economic constraints are even more pronounced in rural areas, where infrastructure is lacking and healthcare services are often distant. Recent studies from Nigeria (Oluwole et al., 2017) and other parts of Sub-Saharan Africa (Akinyemiju et al., 2021) emphasize the need for cost-effective screening programs and improved access to affordable services. These barriers are especially relevant in rural Nigeria, where disparities in healthcare access contribute to inequities in screening uptake. Women in antenatal and postnatal clinics may have a higher perception of financial burdens related to screenings due to competing demands for maternal and child healthcare.

Healthcare system factors are also crucial. Availability, accessibility, and the perceived quality of screening services can significantly impact individuals' willingness to seek screening. Long waiting times, lack of continuity in care, and concerns about care quality are common deterrents (Pinzon-Perez et al., 2005). Moreover, healthcare providers' attitudes, communication skills, and cultural sensitivity play a vital role in influencing patients' screening decisions (Twinomujuni et al., 2015). In settings like Nasarawa State, where healthcare resources may be limited, these issues are likely to be amplified, leading to lower uptake of preventive services such as cervical cancer screening. The willingness of healthcare providers to engage patients, particularly in antenatal and postnatal clinics, is critical, as these clinics represent an opportune setting to introduce cervical cancer screening.

Despite the breadth of research on cervical cancer screening uptake, a gap persists in understanding the unique socio-cultural factors influencing screening behaviour among women

attending antenatal and postnatal clinics at Dalhatu Araf Specialist Hospital, Lafia, Nasarawa State, Nigeria. While general studies have identified barriers such as cultural beliefs, fear of screening, and lack of awareness, these findings do not always reflect the nuanced socio-cultural realities of this specific population. Furthermore, limited research has focused on women attending antenatal and postnatal clinics, who may have distinct concerns and perceptions around cervical cancer screening. Recent studies on cervical cancer screening in Sub-Saharan Africa (Such as Akinyemiju et al., 2021) provide insights into broader trends, but further research is needed to understand the local context. This study, therefore, seeks to fill this knowledge gap by examining these unique socio-cultural factors in detail, with an emphasis on the distinct perspectives of women in Nasarawa State.

Theoretical Framework

The Health Belief Model (HBM) serves as a comprehensive framework for understanding health-related behaviours, especially in the realm of preventive health measures such as cervical cancer screening. According to the HBM, an individual's motivation to adopt health behaviour is influenced by several key perceptions: their perceived susceptibility to a health threat, the perceived severity of that threat, and an evaluation of the benefits of taking preventive action in relation to the perceived barriers. These core beliefs act as driving forces, determining whether a person will engage in behaviours that promote their health. Additionally, the HBM acknowledges that individual perceptions are further shaped by modifying factors, such as demographic characteristics (age, socioeconomic status, and education level) and external cues to action, which serve as triggers that may prompt individuals to initiate health-promoting behaviours (Janz and Becker, 1984; Rosenstock and Strecher, 1988).

In the context of cervical cancer screening, applying the HBM suggests that individuals are more inclined to participate in screening if they perceive themselves as vulnerable to cervical cancer, believe the condition to be serious, and assess that the benefits of screening—such as early detection and improved treatment outcomes—outweigh any perceived obstacles, such as discomfort, cost, or fear of diagnosis. Furthermore, the concept of cues to action is crucial in this context, as external reminders, availability of screening services, and public health messages can prompt individuals to pursue screening. The HBM also emphasises the role of self-efficacy, suggesting that an individual's confidence in their ability to complete the screening process successfully can significantly impact their likelihood of taking action (Hochbaum and Rosenstock, 1952).

In essence, the HBM posits that individuals are most likely to engage in cervical cancer screening when they acknowledge their susceptibility to the disease, recognize its severity, appreciate the benefits of screening, and are able to overcome perceived barriers. External cues, such as community outreach, healthcare provider recommendations, and public awareness campaigns, further encourage individuals to take preventive measures. By incorporating these elements, the HBM provides valuable insights into the factors influencing cervical cancer screening behaviours and underscores the importance of targeted interventions that address these perceptions to improve screening uptake.

METHODOLOGY

This study employed a social survey research design that integrated both quantitative and qualitative research methods. The social survey approach facilitated the collection of data from

a sample of the study population through the use of questionnaires and in-depth interviews, enabling the gathering of substantial and systematic information that reflects the broader population. The chosen study site, Dalhatu Araf Specialist Hospital (D.A.S.H) in Lafia, Nasarawa State, Nigeria, was selected due to its status as one of the largest and most accessible healthcare facilities in the region, especially for women seeking antenatal and postnatal care. The hospital's wide range of departments and state-of-the-art facilities supports comprehensive maternal care services, making it an ideal environment for this research.

The study population consisted of pregnant women and those attending postnatal care services, aged 15-49, who were registered at Dalhatu Araf Specialist Hospital between July 2023 and October 2023. A sample size of 262 respondents was calculated using Krejcie and Morgan's formula, with data collection spread across antenatal and postnatal clinic days. Simple random sampling was chosen to ensure that every individual in the target population had an equal chance of being selected, minimizing selection bias and enhancing the generalizability of the findings. The sampling frame consisted of women attending antenatal and postnatal clinics at Dalhatu Araf Specialist Hospital, Lafia, Nasarawa State. Using a random number generator, women were selected from this frame during their clinic visits, ensuring a diverse, representative sample of the population. This approach allowed for a broad exploration of socio-cultural, psychological, and economic factors influencing cervical cancer screening uptake across the clinic attendees. In addition to administering questionnaires, in-depth interviews were conducted with healthcare practitioners, including mentors, nurses, midwives, and gynaecologists, to gather professional insights regarding women's knowledge, attitudes, and practices related to cervical cancer screening.

Data analysis encompassed both quantitative and qualitative methods. Quantitative data were analysed using descriptive statistics via SPSS software, while for qualitative data, thematic analysis was used to identify patterns and themes from in-depth interviews with healthcare practitioners. Initially, interview transcripts were coded manually or with software such as NVivo, identifying key phrases and recurring concepts. These codes were then grouped into broader themes, such as "psychological barriers" or "cultural stigma," to understand the factors influencing screening behaviours. This dual approach provided a comprehensive understanding of the study objectives, highlighting key factors influencing cervical cancer screening behaviour among the target population.

RESULTS

Demographic and Socio-economic Characteristics

The demographic characteristics of the participants reveal a diverse profile. The majority are married (76.9%), with a notable presence of widowed and divorced/separated individuals. Religious diversity is evident, with a slight majority identifying as Muslim (58.1%). Primary education is the most prevalent educational attainment (36.5%), while business and other occupations are common among participants. Income distribution spans a moderate spectrum, with a considerable middle-income segment but also indications of potential financial challenges among some participants. These statistics provide a snapshot of the socio-economic composition of the participant group, offering valuable context for understanding their perspectives and experiences.

Awareness of Cervical Cancer and Screening

Table 1: Awareness of Cancer of the Cervix

Response	Frequency	Percentage (%)
I am aware	233	89.6
Not aware	27	10.4
Total	**260**	**100.0**

Source: Field Survey, 2024

Table 1 provides insights into the level of awareness of cervical cancer among women of reproductive age. The results indicate that the vast majority of respondents, comprising 89.6%, affirmed that they have heard of cervical cancer. This high level of awareness suggests a foundational knowledge base within the surveyed population regarding the existence of cervical cancer as a health issue. However, it is noteworthy that a small proportion, 10.4%, reported no awareness of cervical cancer, highlighting the importance of targeted educational initiatives to reach individuals who may be uninformed about this critical health concern.

Table 2: Awareness of Cervical Cancer Screening

Response		Frequency	Percentage (%)
	Ever heard of it	129	49.6
E	Never had of it	104	40.4
	Total	**367**	**100.0**

Source: Field Survey, 2024

The table encapsulates the findings regarding awareness of cervical cancer screening among respondents. It reveals that approximately half of the surveyed population, constituting 49.6%, reported having ever heard of cervical cancer screening. Conversely, 40.4% of respondents indicated that they had never heard of it. This result shows a notable level of awareness within the surveyed cohort and a considerable proportion of individuals who remain uninformed about cervical cancer screening.

Cervical Cancer Screening Practice

Table 3: Response to the Practice of Cervical Cancer Screening

Ever undergone screening	**Frequency**	**Percentage (%)**
Ever had	56	21.5
Never have	204	78.5
Total	**260**	**100.0**
Number of times you had yourself screened for cervical cancer	**Frequency**	**Percentage (%)**
Once	49	18.8
Twice	7	2.7
Thrice	0	0.0
Never	204	78.5
Total	260	**100.0**

When last did you have yourself screened?	Frequency	Percentage (%)
Within last three years	34	60.7
More than three years ago	22	39.3
Total	**56**	**100.0**
Reason for getting screened	**Frequency**	**Percentage (%)**
Request from a health worker	41	73.2
Had signs and symptoms	9	16.1
I voluntarily want to know my status	6	10.7
Total	**56**	**100.0**

Source Field Survey, 2024

The table shows that regarding the history of screening uptake, a significant proportion of respondents, 78.5%, reported never having undergone screening, while only 21.5% indicated having been screened at least once. Among those who had undergone screening, the majority had done so only once (18.8%), with a smaller percentage reporting multiple screenings, including twice (2.7%) or thrice (0.0%).

Furthermore, when examining the recency of screening, the data reveal that the majority of respondents who had undergone screening (60.7%) had done so within the last three years, indicating relatively recent engagement with screening services. However, a noteworthy minority (39.3%) had their last screening more than three years ago, highlighting potential gaps in adherence to recommended screening intervals.

Lastly, the reasons for screening varied among respondents who had undergone screening. The most common reason cited was a request from a health worker (73.2%), suggesting proactive engagement with healthcare providers' recommendations. Additionally, a smaller proportion reported undergoing screening due to signs and symptoms (16.1%), while some expressed a voluntary desire to know their status (10.7%).

This was reiterated from the responses from the interview that show that the practice of cervical cancer screening is abysmally low among women in the study area. In the words of one of the participants;

> Having worked closely with women in our communities, I have gained firsthand insight into the challenges contributing to the low uptake of cervical cancer screening. Despite ongoing efforts to promote awareness and emphasise the importance of early detection, many women continue to exhibit hesitancy towards screening. (49 years old health worker).

From the foregoing, it can be deduced that the uptake of cervical cancer screening is low among women in Lafia, and for those who were screened, most only underwent the screening as a result of medical recommendations and most of them were screened about three years ago.

Factors Influencing the Uptake of Cervical Cancer Screening

Table 4: Response on Factors Influencing the Uptake of Cervical Cancer Screening

Low risk perception	**Frequency**	**Percentage (%)**
Yes	218	83.8
No	44	16.2
Total	**260**	**100.0**
Lack of spousal approval	**Frequency**	**Percentage (%)**
Yes	223	85.8
No	37	14.2
Total	**260**	**100.0**
High cost of screening	**Frequency**	**Percentage (%)**
Yes	233	89.6
No	27	10.4
Total	**260**	**100.0**
Fear of been diagnosed with cancer	**Frequency**	**Percentage (%)**
Yes	181	69.6
No	79	30.4
Total	**260**	**100.0**
Not aware of screening centres	**Frequency**	**Percentage (%)**
Yes	204	78.5
No	56	21.5
Total	**260**	**100.0**
My religious belief does not encourage it	**Frequency**	**Percentage (%)**
Yes	80	30.8
No	180	69.2
Total	**260**	**100.0**
The fear of been screened by a male doctor	**Frequency**	**Percentage (%)**
Yes	137	52.7
No	123	47.3
Total	**260**	**100.0**
Lack of awareness/ignorance	**Frequency**	**Percentage (%)**
Yes	146	56.2
No	114	43.8
Total	**260**	**100.0**

Source: Field Survey, 2024

The examination of factors impacting the uptake of cervical cancer screening identifies various significant obstacles within the surveyed community. These obstacles consist of a low perceived risk of cervical cancer (83.8%), absence of spousal approval (85.8%), high costs associated with screening (89.6%), fear of receiving a cancer diagnosis (69.6%), lack of knowledge regarding screening facilities (78.5%), religious convictions (30.8%), discomfort with male healthcare providers (52.7%), and a general lack of awareness (56.2%). This finding agrees with responses from the interview. In the words of t=some of the participants;

> There are numerous factors I can mention that have hindered some women and even health workers here in the hospital from undertaking the screening, among which are low perceived vulnerability and, in some cases, the fear of getting a positive diagnosis. But most important is the fact that some women are not comfortable opening their cervix for screening, especially if the health practitioner is male personnel. I can categorically tell you that apart from child delivery or in cases of having symptoms, most women are unwilling to be examined on the grounds of being shy (43 years, healthcare worker)

> One of the main challenges is ensuring that all women have access to screening services, especially those in rural or underserved areas. Financial constraints can also be a barrier for some women, as screening tests and follow-up procedures may not always be affordable. Additionally, cultural beliefs and stigma surrounding reproductive health can sometimes deter women from seeking screening, which is why education and awareness campaigns are so important (49-year-old health worker).

These results highlight the intricate interaction of personal, socio-economic, cultural, and healthcare system-related elements that influence screening behaviour. Overcoming these barriers requires comprehensive strategies that involve awareness initiatives, enhanced accessibility, cost-effective measures, and culture.

DISCUSSION

The findings indicate a high level of awareness regarding cervical cancer among women of reproductive age, with 89.6% acknowledging familiarity with the disease. However, the study also reveals that about half of the respondents (49.6%) have heard of cervical cancer screening, suggesting a notable awareness within the population. Yet, a significant percentage (40.4%) remain uninformed about the screening process. Despite some respondents having undergone screening, a substantial majority (78.5%) reported never having been screened. Most of those who were screened had done so within the past three years, primarily due to recommendations from health workers. These trends align with global patterns of low screening uptake despite high awareness levels (Singh et al., 2014; Shivanthan et al., 2014; Karadag et al., 2014; Wright et al., 2014; Assoumou et al., 2015).

The investigation into factors influencing cervical cancer screening uptake uncovered several significant barriers within the surveyed community. A low perceived risk of cervical cancer was reported by 83.8% of respondents, and 85.8% indicated a lack of spousal approval as a barrier. High costs associated with screening were noted by 89.6% of participants, while 69.6% expressed fear of receiving a cancer diagnosis. Additionally, a lack of knowledge regarding screening facilities was reported by 78.5%, and 30.8% cited religious beliefs as a hindrance. Discomfort with male healthcare providers was mentioned by 52.7%, and a general lack of awareness affected 56.2% of respondents. These findings align with the work of McCaul et al. (1996), who found a positive correlation between risk perception and screening uptake, suggesting that a low perception of risk may lead to unnecessary avoidance of screening.

The findings also revealed that another determining factor to the uptake of cervical cancer screening is the consent of the spouse. Spousal refusal is a common issue in societies like Nigeria, where husbands have the final say in healthcare decisions, which contributes to low

screening uptake as women may fear social consequences. Concerns about positive screening results, as highlighted by Vrinten et al. (2014), also deter participation, reflecting broader anxieties regarding health outcomes. For instance, studies from India and Kenya highlight the role of family decision-making, mirroring the impact of spousal approval observed in this study. Financial obstacles are also prevalent in low-income countries, where lack of subsidies can prevent women from accessing screening. These findings align with the Health Belief Model (HBM), which underscores how individual perceptions of susceptibility, severity, benefits, barriers, and cues to action influence health-related behaviours. For example, the connection between low perceived risk and screening uptake corresponds with the HBM's focus on perceived susceptibility and the severity of the disease. Similarly, the influence of spouses on healthcare decisions exemplifies the HBM's acknowledgment of modifying factors, such as social influences, that impact health behaviour. Furthermore, the fear of a positive diagnosis relates to perceived barriers identified by the HBM, while recommendations from healthcare providers serve as vital cues to action.

Conclusion and Recommendations

In conclusion, this study's findings reveal the diverse factors that affect cervical cancer screening uptake among women in the surveyed community. Although awareness of cervical cancer is relatively high, several barriers persist that hinder screening participation, including low perceived risk, lack of spousal support, financial limitations, fear of diagnosis, inadequate knowledge of screening facilities, religious beliefs, discomfort with male healthcare providers, and a general lack of awareness. These obstacles illustrate the intricate interplay of personal, socio-economic, cultural, and healthcare system-related elements that influence screening behaviour. Therefore, the following recommendations are made;

i. Health education campaigns tailored to local cultural beliefs and health literacy levels are essential to improving awareness and screening practices. These campaigns should focus on increasing women's awareness of their personal risk and the benefits of early detection. Community figures, religious leaders, and healthcare workers can serve as influential voices to promote acceptance and encourage screening.
ii. There is a need for government and non-governmental organisations to conduct campaigns to educate men on the importance of supporting their wives' decisions to undergo cervical cancer screening.
iii. Policymakers should develop policies that address accessibility, which could transform screening uptake. Mobile screening units in rural areas would help reach underserved populations, and subsidies for low-income individuals could alleviate the financial burden.
iv. Furthermore, healthcare providers should be trained to refine their communication skills, cultural sensitivity, and capacity to deliver gender-sensitive care. Involving community leaders and stakeholders in advocacy initiatives and establishing support networks for women undergoing screening can further help overcome social and cultural barriers.

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