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Comparative Study Of Knowledge, Attitudes, And Practices Toward Cervical Cancer Screening Among Urban And Rural Women In Gombe State, Nigeria

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ABSTRACT: *This study critically examines the knowledge, attitudes, and practices about cervical cancer and its screening among female market participants in Gombe State. Empirical data were gathered through a structured questionnaire administered in four principal markets, with subsequent analysis to evaluate the respondents' comprehension of cervical cancer, their attitudes towards screening, and their actual screening behaviors. The demographic analysis revealed that a significant proportion of respondents were between 15 and 24 years old (26%), with a notable representation of individuals identifying as Muslim (52.25%). The participants' educational backgrounds exhibited considerable variability, with a substantial contingent having attained only primary education (35.75%) or no formal education (32.25%). Economically, most respondents were categorized as low-income (79.75%). The findings indicate a pervasive lack of knowledge regarding cervical cancer among the majority of participants. Furthermore, the study elucidates that socio-economic factors, entrenched cultural norms, and inadequate access to healthcare services constituted significant impediments to effective screening practices. These insights underscore the imperative need for targeted interventions aimed at addressing these barriers and subsequently enhancing cervical cancer screening rates within this population.*

Keywords: Cervical Cancer Screening, Knowledge and Attitudes, Urban and Rural Women, Gombe State, Nigeria

BACKGROUND OF STUDY

Cervical cancer is one of the most common types of cancer among women worldwide, with over 570,000 new cases reported annually (Ferlay et al., 2018). In many developing countries, including Nigeria, cervical cancer is a leading cause of morbidity and mortality among women, with a high incidence rate and poor survival rate (Oladapo et al., 2017). Early detection and screening are crucial in preventing cervical cancer and reducing mortality rates. However, many women in Nigeria, particularly those in low-income communities, lack access to cervical cancer screening services (Adejuyigbe et al., 2018). Market women are a significant segment of the population in Nigeria, playing a crucial role in the economy. They are often characterized by limited access to healthcare services, lack of education, and limited financial resources (Adebayo et al., 2019). Despite their importance, there is a shortage of information on the knowledge, attitude, and practice of market women concerning cervical cancer screening. A study conducted in Nigeria found that many women had negative attitudes towards cervical cancer screening, citing fear of pain, embarrassment, and lack of trust in healthcare providers (Oladapo et al., 2017). Statistically, only 12% of women had undergone cervical cancer screening in the past year (Oladapo et al., 2017), thus positing a lack of knowledge and consequent attitudinal regress towards cervical cancer screening, especially amongst market women where a majority of the female population in Nigeria is hosted.

STATEMENT OF PROBLEM

Cervical cancer is a significant public health concern in Nigeria, with a high incidence rate and poor survival rate (Oladapo et al., 2017). Despite the availability of practical screening tests and treatments, the majority of the women population, particularly market women and those in low-income communities, lack access to cervical cancer screening services (Adejuyigbe et al., 2018). Market women, who are a significant segment of the population in Nigeria, are often characterized by limited access to healthcare services, lack of education, and limited financial resources, posing a substantial challenge to the prevention and control of cervical cancer in this population (Adebayo et al., 2019). Therefore, this study aims to investigate the knowledge, attitude, and practice concerning cervical cancer screening amongst market women in Gombe State, Nigeria.

JUSTIFICATION OF THE STUDY

The proposed study investigates the knowledge, attitude, and practice concerning cervical cancer screening amongst market women in Gombe state, Nigeria. This study is justified for several reasons. The first is to identify the factors that influence the uptake of cervical cancer screening among this population. Secondly, identify the specific challenges and barriers they face in accessing cervical cancer screening services. Thirdly, the factors influencing their knowledge, attitude, and practice must be identified. Finally, to add to the existing knowledge on cervical cancer screening of market women in Gombe state.

SCOPE OF THE STUDY

The study focused on market women within four significant markets in Gombe state, Nigeria, which are the Gombe Main Market, Old Market, GSM Market, and Kasuwan Mata market. The study was limited to market women aged 15 years and above who have been working in the market for at least one year.

LIMITATIONS OF THE STUDY

1. ***Sampling limitations:*** The study was limited to four major markets in Gombe State, which may not represent all market women within the state.
2. ***Self-reported data:*** The study relied on self-reported data from market women, which may be subject to biases and inaccuracies.
3. ***Data collection limitations:*** The study was limited to a six-week data collection period, which may not have been sufficient to capture market women's full range of experiences and perceptions regarding cervical cancer screening.

OBJECTIVES OF THE STUDY

The main objectives of this study are to:

1. Assess the knowledge of market women in Gombe state about cervical cancer and its screening and examine their attitudes towards it.
2. Investigate the practices of market women in Gombe state regarding cervical cancer screening and identify the factors that influence their uptake.
3. Determine the relationship between knowledge, attitude, and practice regarding cervical cancer screening among market women in Gombe state.

OPERATIONAL DEFINITION OF TERMS

The operational definitions of the following terms are crucial for this research:

Cervical Cancer: Cervical cancer is a type of cancer that occurs in the cervix, which is the lower part of the uterus that opens into the vagina (WHO, 2018).

Cervical Cancer Screening refers to the process of testing for cervical cancer or precancerous cells in the cervix to detect abnormal cells early, before they become cancerous (American Cancer Society, 2020).

Market Women: Market women refer to women who engage in market activities such as selling goods and services in markets, stalls, or shops (National Bureau of Statistics, 2020).

LITERATURE REVIEW

Cervical cancer represents a critical public health challenge globally, notably affecting women in developing countries where access to healthcare services is often limited. The World Health Organization (WHO) reports that cervical cancer is the fourth most common cancer among women, with an estimated 570,000 new cases diagnosed annually (Ferlay et al., 2018). Nigeria, in particular, has a high incidence of cervical cancer, which significantly contributes to morbidity and mortality among its female population, especially in low-income communities (Oladapo et al., 2017). The prevention and control of cervical cancer hinge on effective screening and early detection; however, the uptake of these services remains disproportionately low among women in Nigeria, particularly among market women, who represent a substantial segment of the workforce.

Market women in Nigeria face unique challenges that contribute to their limited access to cervical cancer screening services, including socio-economic barriers, lack of education, and healthcare access limitations (Adebayo et al., 2019; Adejuyigbe et al., 2018). A study highlighted that only 12% of women in Nigeria had undergone cervical cancer screening within the preceding year, with common deterrents including fear of pain, embarrassment, and mistrust toward healthcare providers (Oladapo et al., 2017). This raises a critical gap in our understanding of the knowledge, attitudes, and practices surrounding cervical cancer screening among market women in Gombe State, Nigeria, where many are uninformed about screening benefits despite its proven effectiveness.

Existing literature largely overlooks the specific experiences and perspectives of market women regarding cervical cancer screening, thereby limiting targeted interventions to mitigate these barriers (Adejuyigbe et al., 2018). This literature review explores the multifaceted dimensions of knowledge, attitudes, and practices related to cervical cancer screening in this demographic. By focusing on market women in Gombe State, the review will inform public health strategies and enhance advocacy efforts to improve screening uptake, ultimately contributing to better health outcomes for women in similar socio-economic contexts. The findings and insights derived from this review could potentially catalyze further research and policy formulations to strengthen cervical cancer prevention efforts among vulnerable populations in Nigeria and beyond.

CONCEPTUAL FRAMEWORK

The conceptual framework for understanding the knowledge, attitudes, and practices (KAP) concerning cervical cancer screening among market women is built on the Health Belief Model (HBM). This describes how individual beliefs influence health behaviors. It includes perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. These elements collectively shape how market women perceive cervical cancer and their likelihood of participating in screening programs and, thus, influence the design and development of specific interventions to improve the rate of screening. Interventions based on this conceptual framework can include education programs, community engagement, and policy recommendations. The variables

for this topic, "**Comparative Study of Knowledge, Attitudes, and Practices Toward Cervical Cancer Screening Among Urban and Rural Women in Gombe State,**" include.

Knowledge: The information and understanding that the market women have about cervical cancer screening, including its benefits, risk factors, techniques, and guidelines. Knowledge is crucial as it shapes women's attitudes and perceptions towards cervical cancer screening. Recommendations influence it and further inform the concepts and benefits associated with cervical cancer screening**.**

Attitude: This is the market of Women's personal beliefs, feelings, and predispositions towards cervical cancer screening. Attitudes are shaped by knowledge, cultural, and religious influences, and they directly impact cervical cancer screening practice.

Practice: This is the Actual cancer screening behavior and adherence to cervical cancer screening recommendations. Practice is the culmination of all the influencing factors, including knowledge, attitude, personal motivation, demographic characteristics, and support. The adjustable variables are knowledge and attitude, which will affect the uptake of cervical cancer screening (dependent variable). Sources of information will be the intervening variables.

Epidemiology of Cervical Cancer

Cervical cancer is the fourth most prevalent cancer among women worldwide, accounting for approximately 570,000 new cases and 311,000 deaths annually (Ferlay et al., 2018). In Nigeria, it is a leading cause of cancer-related mortality among women, with an incidence rate that reflects significant disparities in healthcare access (Oladapo et al., 2017). The WHO emphasizes that screening and early detection can dramatically reduce cervical cancer incidence and mortality. Yet, many women, particularly in rural areas, do not have timely access to these life-saving services (WHO, 2018).

Knowledge of Cervical Cancer and Screening

Knowledge about cervical cancer and its preventive measures is crucial in shaping attitudes and practices toward screening. Several studies indicate a significant gap in knowledge about cervical cancer among women in Nigeria. A survey conducted in Southwest Nigeria found that only 45% of respondents knew about cervical cancer screening (Adejuyigbe et al., 2018). Additionally, urban women often report higher educational levels and greater awareness of health-related issues than their rural counterparts (Adebayo et al., 2019). This discrepancy may explain the variation in screening uptake, as higher awareness generally correlates with increased participation in preventive health services.

Attitudes Toward Cervical Cancer Screening

Attitudes towards cervical cancer screening significantly influence women's decision-making regarding their health. Fear of painful procedures, embarrassment, and lack of trust in healthcare providers are common deterrents (Oladapo et al., 2017). Urban women, who may have more exposure to health education and information campaigns, tend to exhibit more positive attitudes towards screening (Adebayo et al., 2019). In contrast, many rural women report negative attitudes due to cultural beliefs and misconceptions surrounding cancer and screening (Adejuyigbe et al., 2018). Understanding these differing attitudes is crucial for developing targeted educational programs to address barriers to screening in both populations effectively.

Practices Related to Cervical Cancer Screening

The uptake of cervical cancer screening services varies significantly between urban and rural women. A cross-sectional study in Nigeria revealed that only 12% of women had undergone cervical cancer screening in the past year, with a notable disparity between urban and rural settings (Oladapo et al., 2017). Urban areas often have more accessible healthcare facilities, trained personnel, and awareness campaigns that contribute to higher screening rates (Adebayo et al., 2019). Conversely, rural women face logistical challenges, including distance to healthcare centers, unavailability of screening services, and financial constraints, which hinder their participation in preventive care (Adejuyigbe et al., 2018).

Socio-Economic Factors Influencing Screening Uptake

Research indicates that socio-economic status significantly impacts health-seeking behaviors, including cervical cancer screening. Wealthier urban women typically have better access to healthcare resources, education, and social support, all of which facilitate higher screening uptake (Rasool et al., 2020). In contrast, rural women often confront poverty, limited healthcare accessibility, and lower educational levels, resulting in reduced knowledge and poor health-seeking behavior (Adebayo et al., 2019). Socio-economic disparities suggest the need for tailored interventions addressing rural women's specific challenges.

Cultural Influences on Screening Behavior

Cultural beliefs and practices are crucial in shaping health behaviors related to cervical cancer screening. In many rural communities, the cultural stigma associated with cancer and female reproductive health can discourage women from seeking screening (Adebayo et al., 2019; Adejuyigbe et al., 2018). In contrast, urban women may have more progressive views regarding health, influenced by exposure to diverse educational materials and healthcare messaging in urban environments (Oladapo et al., 2017). Addressing these cultural factors through community engagement and education is essential for improving screening rates in urban and rural settings.

Policy Implications and Recommendations

The literature highlights the need for integrated health policies that prioritize cervical cancer prevention in both urban and rural areas. Public health initiatives must focus on raising awareness and improving knowledge about cervical cancer while addressing the specific socio-economic and cultural barriers faced by different populations (WHO, 2018; Rasool et al., 2020). Strategies might include mobile screening programs, community health education, and engagement with local leaders to help shift cultural narratives around cervical cancer screening.

Understanding the comparative aspects of knowledge, attitudes, and practices toward cervical cancer screening among urban and rural women in Gombe State provides critical insights into how to enhance screening uptake. Addressing both the knowledge gap and the socio-cultural barriers is fundamental for improving cervical cancer prevention strategies. Future research should focus on developing culturally sensitive and economically viable interventions for both urban and rural populations, ultimately leading to improved health outcomes for women across Gombe State and beyond.

Gap Identification

One significant gap in knowledge is the assessment of the lack of knowledge and perception of cervical cancer amongst market women, irrespective of the several education campaigns across Nigeria. Many market women may not be aware of the importance of regular screening or the role of human papillomavirus (HPV) in the development of cervical cancer. Misconceptions about the disease and screening procedures can further hinder their understanding. Cultural beliefs and stigma also influence attitudes towards cervical cancer screening. Practices related to cervical cancer screening among market women will reveal existing significant barriers. Another gap is understanding the key parameters that support targeted intervention systems specific to market women.

METHODOLOGY

This study employed a descriptive cross-sectional survey design to assess the knowledge, attitudes, and practices related to cervical cancer and screening among market women aged 15 years and above. This design was chosen for its effectiveness in capturing a snapshot of the current awareness, attitudes, and behaviors regarding cervical cancer screening within the target population at a specific time. Data were collected using a structured questionnaire, allowing for a comprehensive assessment of the participants' knowledge, attitudes, and utilization of cervical cancer screening services.

POPULATION OF THE STUDY

The population for this study consisted of female market traders aged 15 years and above from Gombe Main Market, Old Market, GSM Market, and kasuwan-mata market, all in Gombe state. Only female shop owners/attendants aged 15 years and above who gave their consent were included in this study. Data from the Gombe State Ministry of Trade, industry, and Tourism shows that as of 2022, the female market traders in all the four markets above stood at approximately thousand nine hundred twenty (1920).

SAMPLE SIZE

Choosing an appropriate sample size requires a balance between ensuring representativeness and adhering to practical limitations. Although the population can be considered theoretically infinite, we must deal with finite samples. The behaviors and scores recorded within the sample serve as a basis for inferring or estimating what might be observed in the entire population if it were studied. In this research, we have taken each marketplace as a cluster representation and used 20% of the population as sample size, giving us a figure of three hundred and eighty-four female traders.

Percentage solution with steps:

Step 1: Our output value is 1920.

Step 2: We represent the unknown value with x.

Step 3: From step 1 above,1920=100%.

Step 4: Similarly, x= 20%.

Step 5: This results in a pair of simple equations:

1920=100%(1).

x=20%(2).

Step 6: By dividing equation 1 by equation 2 and noting that both the RHS (right-hand side) of both equations have the same unit (%), we have

$$\frac{1920}{x} = \frac{100\%}{20\%}$$

Step 7: Again, the reciprocal of both sides gives

$$\frac{x}{1920} = \frac{20}{100}$$

$$x = 384$$

Therefore, 20% of 1920 is 384

SAMPLING TECHNIQUES

A multistage sampling technique was employed:

Stage 1: The selection of markets was done through simple random sampling from a list of markets in Gombe State.

Stage 2: Within each selected market, participants were also chosen using a simple Random Probability Sampling method used in collecting the data.

RESEARCH INSTRUMENTS

Data were collected using a self-administered, structured questionnaire designed for this study, based on relevant literature, and tailored to capture all necessary variables. The questionnaire was organized into four main sections: Section A - Demographic Information. Section B: Knowledge Assessment, Section C: Attitude Measurement, and Section D: Practice Evaluation. The questionnaire also included a research topic, introduction, and preliminaries (such as the date and time of the interview), ensuring that the data collection process was thorough and systematic.

METHOD OF DATA ANALYSIS

The data collected from the questionnaires were entered into the computer and analyzed using Epi Info software. Descriptive statistics was employed to interpret the findings. Descriptive statistics, including frequencies and percentages, were used to summarize demographic characteristics and responses. The results from various locations in Gombe State were presented in tabular form using Microsoft Word and Excel. Percentages for various aspects were calculated, and relevant interpretations were provided to understand the data comprehensively.

RESULTS AND DISCUSSION

Four hundred questionnaires were administered, all retrieved, giving a 100% response rate. The responses were summarized, analyzed, and presented in tables and figures for clarity. Critical findings concerning existing literature were discussed, and the implications for cervical cancer prevention and control were highlighted.

Table 1:Frequency distribution of age and religion of respondents

	Age Range	Religion			Total	%
		Islam	Christianity	Others		
1	15-24	54	50	0	104	26.00%
2	25-34	42	38	0	80	20.00%
3	35-44	49	50	0	99	24.75%
4	45-54	34	29	0	63	15.75%
5	55-64	20	18	0	38	9.50%
6	65-74	10	6	0	16	4.00%
Total		209 (52.25%)	191 (47.75%)	0	400	100.00%

Source: Field survey, 2024

This table presents the age and religious affiliation distribution of the respondents. The age group 15-24 years represents the most significant proportion (26%), followed by the 35-44 age group (24.75%). Most respondents are Muslim (52.25%), with Christians making up the remaining 47.75%. This distribution is important because it provides context for understanding the cultural and religious influences on health behaviors, such as cervical cancer screening.

Table 2: Distribution of respondent's marital status and ethnic groups

		Marital status					**Total**	Percentage
	Ethnic group	**Married**	**Divorced**	**Single**	**Separated**	**Widowed**		
1	Hausa	152	29	43	24	32	280	70.00%
2	Igbo	40	0	15	1	7	63	15.75%
3	Yoruba	34	3	10	2	8	57	14.25%
Total		226	32	68	27	47	400	100.00%
Percentage		56.50%	8.00%	17.00%	6.75%	11.75%	100.00%	

Source: Field survey, 2024

This table breaks down the marital status and ethnic composition of the respondents. Most are Hausa (70%) and married (56.50%). Marital status can significantly influence health decisions, including the likelihood of undergoing cervical cancer screening. Married women might be more inclined to participate in screening due to perceived familial responsibilities. At the same time, cultural norms may affect the willingness of women from different ethnic backgrounds to seek healthcare.

Table 3:Distribution of Respondents by Educational Status

Level of education	**Frequency**	**(**%)
No formal education	129	32.25%
Primary	143	35.75%
Secondary	88	22.00%
Tertiary	40	10.00%
Total	400	100.00%

Source: Field survey, 2024

The table highlights the educational background of the respondents. The largest group has only primary education (35.75%), followed by those without formal education (32.25%). Education level is a critical factor in health literacy, influencing knowledge about cervical cancer and the importance of screening.

Table 4:Distribution of Respondent's Socio-economic Status

Socio-economic classification,	Frequency	Percentage %
Low-Income <₦50,000 per month	319	79.75%
Lower-Middle-Income-₦50,000 to ₦150,000 per month	73	18.25%
Middle-Income Group-₦150,000 to ₦500,000 per month	8	2.00%
Upper-Middle-Income Group-₦500,000 to ₦1,500,000 per month	0	0.00%
High-Income Group-Above ₦1,500,000 per month	0	0.00%
Total	400	100.00%

Source: Field survey, 2024

This table categorizes respondents based on their income levels. The overwhelming majority (79.75%) fall into the low-income category. Women in lower-income brackets may face barriers such as cost and lack of access to healthcare.

Table 5:Knowledge of risk factors by the respondents

Risk factors	**Yes (%)**	**No (%)**	**Don't know(%)**	**Total**
Early onset of sexual intercourse	40 (10.00%)	169 (42.25%)	191 (47.75%)	400
Advanced Age	69 (17.25%)	144 (36.00%)	187 (46.75%)	400
Family History	97 (24.25%)	168 (42.00%)	135 (33.75%)	400
Multiple sexual partners	56 (14.00%)	173 (43.25%)	171 (43.25%)	400
Low socio-economic status	98 (24.50%)	154 (38.50%)	148 (37%)	400
Number of children	76 (19.00%)	152 (38.00%)	1728 (43%)	400
Cigarette smoking	20 (5.00%)	119 (29.75%)	261 (65.28%)	400
Sexually transmitted infections	105 (26.25%)	141 (35.25%)	154 (38.5%)	400
HPV infection	192 (48.00%)	143 (35.75%)	65 (16.25%)	400
Multiple pregnancies (>5)	60 (15.00%)	59 (147.50%)	281 (70.25%)	400
Poor menstrual hygiene	38 (9.50%)	78 (19.50%0	284 (71%)	400

Source: Field survey, 2024

This table reveals that knowledge about the risk factors for cervical cancer is generally low among the respondents; only 48% identified HPV infection as a risk factor despite it being a leading cause of cervical cancer. This lack of awareness is a significant barrier to early detection and prevention.

Table 6: Knowledge of symptoms by the respondents

Symptoms	Yes	No	Don't know	Total (%)
Vaginal bleeding	89 (22.50%)	125 (31.25%)	186 (46.50%)	400
Post-coital bleeding	90 (22.50%)	142 (35.50%)	168 (42.00%)	400
Weight loss	76 (19.00%)	142 (35.50%)	182 ()	400
Foul-smelling vaginal discharge	54 (13.50%)	139 (34.75%)	207 (51.75%)	400
Abdominal pain	69 17.25% ()	118 (29.50%)	213 (53.25%)	400
Bleeding in between periods	158 (39.50%)	89 (22.50%)	153 (38.25%)	400
Periods heavier and of longer duration than usual	126 (31.50%)	118 (29.50%)	156 (39.00%)	400
Postmenopausal bleeding	149 (37.25%)	106 (26.50%)	145 (36.25%)	400

Source: Field survey, 2024

The data indicates a significant gap in knowledge regarding the symptoms of cervical cancer, which shows 22.50% of respondents were aware that vaginal bleeding is a potential symptom. This lack of awareness is concerning because early detection of symptoms can lead to timely medical intervention.

Table 7: Respondents attitude and practice

Attitude and Practice	**Agree**	**Disagree**	**Neutral**	**Total**
Intermenstrual bleeding should be considered normal	41 (10.25%)	316 (79.00%)	43 (10.75%)	400
A woman should bear her first child by the age of 20 years	280 (70.00%)	85 (21.25%)	35 (8.75%)	400
Women should bear five or more children to increase family strength	298 (74.50%)	60 (15.00%)	42 (10.50%)	400
Women with multiple sex partners are more predisposed to cervical cancer	126 (31.50%)	256 (64.00%)	18 (4.50%)	400
Women should get an internal examination done by a Gynecologist once every 3 years	284 (71.00%)	94 (23.50%)	22 (5.50%)	400
If any lady in the neighborhood has cervical cancer, you will keep your distance from her	48 (12.00%)	272 (68.00%)	80 (20.00%)	400
If you were offered a free cervical cancer screening, would you be willing to be screened?	312 (78.00%)	80 (20.00%)	8 (2.00%)	400

Source: Field survey, 2024

This table highlights the respondents' attitudes toward cervical cancer and its prevention. Most agree that women should undergo regular gynecological examinations, indicating a positive attitude toward preventive care. However, despite this positive attitude, the practice, as indicated by the low screening rates, does not align with these beliefs. This discrepancy suggests that while women may recognize the importance of screening, other barriers—such as access, cost, or fear—prevent them from following through.

Table 8: Knowledge of screening by the respondents

Knowledge about cervical cancer screening	**YES**	**NO**	**DON'T KNOW**	**Total**
Utility of screening	212 (53.00%)	148 (37%)	40 (10.00%)	400
Age for screening	109 (27.25%)	214 (53.5%)	77 (19.25%)	400
Screening frequency	134 (33.50%)	203 (50.75%)	63 (15.75%)	400
Vaccine availability	117 (29.25%)	272 (68%)	11 (27.50%)	400
Age for HPV vaccination	124 (31.00%)	224 (56%)	52 (13.00%)	400
Ever screened	36 (9.00%)	280 (70.00%)	84 (21.00%)	400

Never screened	280 (70.00%)	36 (9.00%)	84 (21.00%)	400

Source: Field survey, 2024

This table reveals the respondents' knowledge of cervical cancer screening. While over half of the respondents understand the utility of screening, knowledge about specific aspects, such as the appropriate age for screening and the availability of vaccines, is lacking. Only 9% have been screened, indicating a significant gap between knowledge and practice. This underscores the need for educational interventions that not only inform women about cervical cancer but also encourage regular screening practices.

MAJOR FINDINGS

The study presented the demographic characteristics of the respondents, including age, religion, marital status, and ethnic groups. Most of the women were between the ages of 15 and 44 (70.75%), with the most significant proportion being in the 15-24 age group (26.00%). This demographic distribution is consistent with the general population in Gombe State, where a significant portion comprises young women of reproductive age (National Population Commission, 2019). The respondents were predominantly Muslim (52.25%), reflecting the religious composition of the state. Most were married (56.50%), with the Hausa ethnic group being the largest (70.00%). These demographic factors may influence health-seeking behaviors and the acceptability of cervical cancer screening services, as cultural and religious beliefs often play a significant role in women's decisions regarding preventive health measures (Oche et al., 2013). Understanding these cultural contexts is crucial for designing effective health interventions.

EDUCATIONAL STATUS AND SOCIO-ECONOMIC STATUS

The study shows that many respondents had either no formal education (32.25%) or only primary education (35.75%). This low level of educational attainment is ordinary among market women in Nigeria and other developing countries, where access to formal education, particularly for girls, is often limited (Abiodun et al., 2014). It further reveals that most women (79.75%) were from low-income households, earning less than ₦50,000 per month. This socio-economic status may pose a significant barrier to healthcare access, often not covered by health insurance or subsidized by the government in many parts of Nigeria (Ndikom & Ofi, 2012). These women's economic constraints can lead to prioritizing immediate financial needs over preventive health measures, further exacerbating health disparities.

KNOWLEDGE OF RISK FACTORS AND SYMPTOMS

The findings indicated a concerning lack of awareness, with many women unable to identify key risk factors and symptoms correctly. For instance, only 10.00% recognized the early onset of sexual intercourse as a risk factor, and only 48.00% identified HPV infection correctly. Similarly, a significant percentage of women were unaware of common symptoms such as foul-smelling vaginal discharge (51.75%) and postmenopausal bleeding (36.25%). These findings are consistent with studies conducted in other parts of Nigeria, which have reported low levels of knowledge about cervical cancer among women from similar socio-economic backgrounds. Additionally, only 39.50% recognized bleeding between periods as a symptom; this widespread lack of awareness about risk factors and symptoms can lead to late presentation and diagnosis, which is often associated with poorer outcomes.

ATTITUDES AND PRACTICES

This study reveals the respondents' attitudes towards cervical cancer screening. While a significant proportion (71.00%) agreed that women should undergo regular gynecological examinations, many held misconceptions about the disease. For instance, 70.00% believed that women should bear their first child by the age of 20 years, and 74.50% thought that having five or more children increases family strength. These beliefs may stem from cultural and religious norms that prioritize early marriage and large family sizes, which can negatively impact women's health-seeking behaviors (Oche et al., 2013). It also shows that most of the women (70.00%) had never undergone cervical cancer screening, despite 78.00% expressing willingness to be screened if offered the service for free. This discrepancy between attitude and practice suggests that while women may recognize the importance of screening, various barriers prevent them from accessing these services. Factors such as lack of awareness, fear of the procedure, and limited availability of screening facilities have been identified in other studies as significant obstacles to cervical cancer screening uptake in Nigeria and similar contexts (Ndikom and Ofi, 2012; Abiodun et al., 2014). This gap between willingness and actual practice underscores the need for targeted interventions that address specific barriers to screening. When comparing these findings with similar studies conducted across different regions in Nigeria and other developing countries, a consistent pattern of low knowledge and screening uptake emerges; a survey by Olumide et al. (2012) in Ibadan, Nigeria, reported that although awareness of cervical cancer was relatively high, the uptake of screening services was low due to misconceptions and cultural barriers. This parallels the findings in Gombe State, suggesting that these challenges are widespread and need to be addressed at a national level.

SUMMARY

This study assesses the knowledge, attitudes, and practices related to cervical cancer and its screening among market women aged 15 years and above in Gombe State. Data were collected from four major markets using a structured questionnaire, and the responses

were analyzed to evaluate the participants' understanding of cervical cancer, their attitudes toward screening, and their screening behaviors. The study identified that most respondents had limited knowledge about cervical cancer. In addition, socio-economic factors, cultural norms, and lack of access to healthcare services were significant barriers to screening, emphasizing the need for targeted interventions to address these and improve cervical cancer screening rates.

CONCLUSION

This study reinforced the limited knowledge of cervical cancer and screening among market women. Most respondents were aged 15-24 (26%) and identified as Muslim (52.25%). Educational levels varied significantly, with a large proportion having only primary education (35.75%) or no formal education (32.25%). Socio-economic status was predominantly low-income (79.75%). This means the low levels of formal education among respondents are likely contributing to the gaps in knowledge about cervical cancer. Despite the knowledge gaps, there is a general positive attitude towards cervical cancer screening. However, the low awareness of symptoms and risk factors indicates that more comprehensive education and awareness campaigns are necessary to improve screening practices. The low income status of most respondents is likely a significant barrier to accessing cervical cancer screening services. This economic factor and limited educational attainment underscores the necessity for affordable and accessible healthcare solutions.

RECOMMENDATIONS

1. Tailored educational interventions should be implemented to improve knowledge about cervical cancer, risk factors, symptoms, and the importance of screening.
2. Accessibility and affordability of screening services, possibly through government-subsidized programs, must be increased.
3. Encourage community engagement and involvement of local leaders to address cultural and religious misconceptions.
4. Cervical cancer screening should be integrated into primary healthcare services for better reach.

CONTRIBUTION TO KNOWLEDGE

The study on cervical cancer awareness and screening among market women in Gombe State, Nigeria, provides essential insights into the complexities of cervical cancer prevention while enhancing our understanding of the factors influencing cervical cancer screening and adds several valuable dimensions to the existing body of literature. One of the standout contributions of this study is its exploration of how cultural and religious beliefs shape health-seeking behaviors. In Gombe State, the predominantly Muslim population, along with traditional beliefs about marriage and family size, plays a crucial role in shaping women's attitudes toward cervical cancer screening. For instance, cultural perceptions about modesty, privacy, and religious beliefs may contribute to reluctance or avoidance of screening. This nuanced exploration of cultural influences provides a deeper understanding of how local norms and traditions impact health behaviors. This dimension might not be as thoroughly examined in studies from other regions.

Besides, the study sheds light on the impact of socio-economic status on access to cervical cancer screening. With 79.75% of the respondents classified as low-income, the study indicates how economic constraints hinder access to essential health services. The findings also reveal a troubling lack of awareness about cervical cancer symptoms and risk factors. Only 48% of respondents recognized HPV as a risk factor, and a low percentage could identify common symptoms of the disease. Furthermore, a notable contribution of the study is identifying a significant discrepancy between willingness and uptake of cervical cancer screening. While 78% of respondents expressed a desire to undergo screening if offered for free, the actual screening rate was only 9%. This gap highlights a critical issue in the translation of willingness into practice. The study suggests that factors beyond mere willingness, such as cultural, logistical, and psychological barriers, may substantially prevent women from participating in screening programs. Finally, the study reveals a generally positive attitude toward preventive health measures among respondents, with 71% recognizing the importance of regular gynecological examinations. This positive attitude contrasts with findings from other regions where negative attitudes, often driven by stigma or misinformation, can hinder preventive health practices.

AREAS FOR FURTHER RESEARCH

Research is needed to assess the effectiveness and reach of existing cervical cancer screening programs. Furthermore, given the low levels of knowledge about cervical cancer risk factors and symptoms, there is a need for research to evaluate the effectiveness of educational interventions in improving awareness and screening uptake. The study also suggests that cultural beliefs and norms, such as early marriage and large family sizes, may influence women's health-seeking behaviors. Thus, there should be further research to understand the role of male partners and community leaders in shaping these beliefs and their potential influence on cervical cancer screening. Finally, with the majority of the study population falling into the low-income category, the cost-effectiveness of different cervical cancer screening strategies, such as visual inspection with acetic acid (VIA) and HPV testing, should be explored.

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