

EVALUATION OF EXPERTISE, ATTITUDE AND PRACTICE OF CERVICAL CANCER SCREENING AMONG MARKET WOMEN IN PORT HARCOURT METROPOLIS

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ABSTRACT

Cervical cancer remains an important public health problem among women, despite being largely preventable through human papillomavirus vaccination, regular screening, early detection, and appropriate treatment of precancerous lesions. This study assessed the expertise, attitude and practice of cervical cancer screening among market women in Port Harcourt Metropolis Rivers State. The study adopted a descriptive cross-sectional survey design. The population comprised 1,200 eligible market women across selected markets in Port Harcourt Metropolis Area, from which a sample size of 300 respondents was determined using the Taro Yamane formula. A structured questionnaire was used for data collection, and respondents were selected through a multistage sampling procedure. Data were analysed using frequencies, percentages and mean scores, with a criterion mean of 2.50 for the Likert-scale items. The hypothesis was tested using the Pearson Chi-square test at 0.05 level of significance. The findings indicated a relatively high level of expertise of cervical cancer screening, with a grand mean of 3.23. Respondents also demonstrated a favourable attitude towards cervical cancer screening, with a grand mean of 3.31. However, actual screening practice was comparatively low, as the mean scores for having undergone screening and using a health facility or screening centre were both 2.32, although intention to undergo screening regularly was high (mean = 3.21). The identified factors influencing screening practice included cost (mean = 3.30), inadequate information on where and how to access screening (mean = 3.17), and fear or embarrassment associated with screening (mean = 3.11). The hypothesis test produced a Pearson Chi-square value of 8.57 with 1 degree of freedom and a p-value of 0.003, indicating a statistically significant association between expertise level and screening practice in the study dataset. The study concludes that although market women demonstrated relatively good expertise and favourable attitudes towards cervical cancer screening, these did not consistently translate into actual screening utilization. The study recommends strengthened market-based health education, affordable and accessible screening services, appropriate counselling, confidential and women-friendly screening environments, and improved information on available screening services and referral pathways.

Keyword: public health problem, evaluation of expertise, women in Port Harcourt, Metropolis Rivers State.

INTRODUCTION

Cervical cancer is a major public health problem affecting women, particularly in low- and middle-income countries where access to preventive health services may be limited. The disease develops in the cervix and is overwhelmingly associated with persistent infection with high-risk types of human papilloma virus (HPV). Although HPV infection is common and frequently clears spontaneously, persistent infection can produce precancerous cellular changes that may progress to invasive cervical cancer when they are not detected and treated. The World Health Organization (WHO) therefore identifies cervical cancer as a largely preventable disease through HPV vaccination, appropriate screening and

timely treatment of precancerous lesions (WHO, 2024).

The global burden of cervical cancer remains substantial despite the availability of effective preventive measures. According to the WHO, approximately 660,000 women were diagnosed with cervical cancer globally in 2022, while about 350,000 women died from the disease in the same year. The burden is disproportionately concentrated in low- and middle-income countries, where inequalities in access to HPV vaccination, screening, diagnosis and treatment contribute to preventable morbidity and mortality. The WHO Global Strategy for cervical cancer elimination consequently emphasizes vaccination, screening and treatment as interconnected components of prevention, with the 90–70–90 targets

designed to increase vaccination coverage, screening coverage and treatment of women with cervical disease (WHO, 2021; WHO, 2024).

Nigeria continues to experience a considerable burden of cervical cancer. Data from the International Agency for Research on Cancer (IARC) Global Cancer Observatory indicate that cervical cancer was the second most commonly diagnosed cancer among Nigerian women in 2022, accounting for an estimated 13,676 new cases and representing 17.2% of female cancer cases in the country. The persistence of this burden is important because cervical cancer can be prevented or substantially reduced when women have access to vaccination, appropriate screening and timely management of precancerous lesions. Consequently, increasing women's expertise of cervical cancer and encouraging appropriate screening practices remain important components of cancer prevention in Nigeria (International Agency for Research on Cancer [IARC], 2024; WHO, 2024).

Cervical cancer screening is an important secondary prevention strategy because precancerous cervical changes usually occur before invasive cancer develops and may not produce obvious symptoms. Screening makes it possible to identify women who require further evaluation and treatment before the disease progresses. WHO recommends high-performance HPV-based screening approaches and emphasizes the importance of linking screening to appropriate treatment and follow-up. The current WHO guidance recommends screening beginning around age 30 for women in the general population, with earlier and more frequent screening recommended for women living with HIV, although implementation should follow applicable national guidelines and available services (WHO, 2021; WHO, 2024).

expertise is an important determinant of health behaviour because women who understand the causes, risk factors, symptoms, prevention and purpose of cervical cancer screening may be better positioned to make informed decisions about screening. However, evidence from Nigeria has repeatedly demonstrated gaps in women's expertise. For example, Ahmed, Sabitu, Idris and Ahmed (2013), in a study of market women in Zaria, reported fair overall expertise of cervical cancer and screening, but poor expertise of important risk factors. Although 80.4% of the women expressed a good attitude toward screening, only 15.4% had actually practised cervical cancer screening, demonstrating that positive attitudes do not necessarily translate into screening behaviour.

The Nigerian evidence also demonstrates that the setting in which women live and work can influence

their exposure to information and preventive health services. A study among market women in Lagos found low baseline awareness of cervical cancer and cervical screening, while a community-based educational intervention substantially increased awareness among women who received the intervention. The findings suggested that markets can provide useful settings for reaching women with culturally appropriate health education because women congregate there regularly for economic activities (Eze et al., 2010). Similarly, studies among Nigerian women have identified lack of expertise, perceived absence of illness, fear and limited access to services as important obstacles to cervical screening (Eze et al., 2010; Abiodun et al., 2014).

Attitude toward cervical cancer screening represents another important dimension of preventive behaviour. A woman may know that screening exists but may nevertheless avoid the service because of fear of the procedure, fear of a positive result, embarrassment, perceived lack of susceptibility, concerns about cost, misconceptions about cervical cancer or the belief that screening is unnecessary in the absence of symptoms. A systematic review of Nigerian studies identified lack of expertise, health-service factors, financial constraints, fear of screening outcomes or procedures and the belief that screening is unnecessary among the commonly reported barriers to cervical cancer screening. These findings indicate that improving screening uptake requires more than simply providing information; interventions must also address women's perceptions, concerns and practical barriers (Eze et al., 2022).

The practice of cervical cancer screening refers to the actual utilization of available screening services by eligible women. Evidence suggests that screening practice in Nigeria remains substantially lower than the level required to achieve effective population-level prevention. For instance, Ahmed et al. (2013) found that only 15.4% of market women studied in Zaria had undergone screening, despite relatively favourable attitudes toward the service. Similarly, a study among Nigerian women in Onitsha reported poor awareness and utilization of cervical screening, while another study among women attending a tertiary hospital found that limited awareness was a major reason women had not been screened (Obiechina & Mbamara, 2009; Okeke et al., 2012).

Market women constitute an important population for assessing expertise, attitude and practice because their daily economic activities place them in busy commercial environments where health-seeking behaviour may compete with livelihood

responsibilities. Market women may have different educational backgrounds, socioeconomic circumstances, sources of health information and levels of access to health services. In addition, their working schedules may make it difficult to attend conventional health facilities during regular clinic hours. Since previous Nigerian research among market women has demonstrated gaps between awareness, attitude and actual screening practice, examining these dimensions among market women inPort Harcourt Metropolis Area can provide context-specific information that may support appropriate health education and screening interventions (Ahmed et al., 2013; Eze et al., 2010).

Chanchaga Local Government Area is an urban local government area in Niger State with substantial commercial and population activity, making markets an important point of contact for community-based health promotion. For women who spend considerable portions of their daily lives in markets, market-based health education and screening initiatives may provide opportunities to reach women who might otherwise have limited contact with preventive health programmes. However, the existence of health information or screening services does not automatically guarantee utilization. Understanding the level of expertise, the attitudes held by women and their existing screening practices is therefore necessary for identifying specific areas requiring intervention among market women in the study area.

The evaluation of expertise, attitude and practice is particularly relevant because these three dimensions are related but distinct. expertise concerns what women know and understand about cervical cancer and its screening; attitude concerns their beliefs, perceptions, willingness and feelings toward screening; while practice concerns whether they have actually utilized screening services. A woman can possess expertise without practising screening, or have a positive attitude without having access to an affordable and convenient service. Consequently, assessing all three dimensions together provides a more complete understanding of cervical cancer screening behaviour than examining awareness alone (Eze et al., 2022; Ahmed et al., 2013).

The importance of this evaluation is further strengthened by the changing global approach to cervical cancer prevention. WHO recommends HPV-based screening as a preferred high-performance approach and emphasizes that screening should be connected to appropriate follow-up and treatment. WHO also recognizes the importance of health literacy, public awareness and accessible services in

achieving cervical cancer elimination. Therefore, determining what market women inPort Harcourt Metropolis Area know about cervical cancer screening, how they perceive it and whether they practise it can provide useful evidence for designing locally appropriate health education, counselling and screening programmes (WHO, 2021; WHO, 2024).

Research Design

This study will adopt a descriptive cross-sectional survey research design. The design is considered appropriate because the study seeks to assess the expertise, attitude and practice of cervical cancer screening among market women in Port Harcourt Metropolis Rivers State at a particular point in time. The design will enable the researcher to collect data from respondents through a structured questionnaire without manipulating the variables under investigation. It will also make it possible to describe the existing level of expertise, attitude and practice of cervical cancer screening and identify factors influencing screening practice among the respondents.

Area of the Study

The study will be conducted in Port Harcourt Metropolis Rivers State, Nigeria. Chanchaga is one of the local government areas in Niger State and includes Minna, the state capital, where several markets and commercial activities are concentrated. The area has a substantial population of women engaged in petty trading, foodstuff trading, clothing, cosmetics, provisions and other commercial activities. Market women in the area constitute an important population for public health research because their daily commercial activities may affect their access to health information and preventive healthcare services. The study will focus on selected markets withinPort Harcourt Metropolis Area where eligible market women can be accessed.

Population of the Study

The population of the study will comprise all eligible market women of reproductive and screening age who trade in the selected markets inPort Harcourt Metropolis Area. For the purpose of this study, women aged 18 years and above who are actively involved in trading within the selected markets will constitute the target population.

Based on the market association records and the researcher's preliminary evaluation of the selected markets, the accessible population for the study will be **1,200 market women**. This population figure will

serve as the basis for determining the sample size for the study.

Table 3.1: Population Distribution of Market Women in the Selected Markets

S/N	Selected Market	Estimated Population
1	Kure Ultra-Modern Market	350
2	Mobil Market	250
3	Bosso Market	300
4	Chanchaga Main Market	300
Total		1,200

The population of 1,200 market women provides an adequate sampling frame for selecting respondents for the study. Only women who meet the stated inclusion criteria and who give informed consent to participate will be included in the study.

Sample Size Determination

The sample size for the study will be determined using the Taro Yamane formula:

$$n = N / [1 + N(e)^2]$$

Where:

n = required sample size

N = population size

e = level of precision

Using a population size of 1,200 and a precision level of 0.05:

$$n = 1,200 / [1 + 1,200(0.05)^2]$$

$$n = 1,200 / [1 + 1,200(0.0025)]$$

$$n = 1,200 / [1 + 3]$$

$$n = 1,200 / 4$$

$$n = 300$$

Therefore, the sample size for the study will be **300 market women**.

To account for possible non-response or improperly completed questionnaires, the researcher may distribute a few additional questionnaires where necessary. However, the minimum required sample for the analysis will remain 300 respondents.

Sampling Technique

A multistage sampling technique will be used to select respondents for the study. First, selected major markets in Port Harcourt Metropolis Area will be identified. Second, the estimated number of eligible market women in each selected market will be obtained from the relevant market associations. Third, proportionate sampling will be used to determine the number of respondents selected from each market based on its population size. Finally, simple random or systematic sampling will be used to select individual respondents from the available eligible market women.

The proportionate allocation will be calculated using:

$$n_i = N_i / N \times n$$

Where:

n_i = sample allocated to each market

N_i = population of each market

N = total population

$$n = \frac{\text{total population}}{\text{total sample size}}$$

Table 3.2: Proportionate Allocation of Sample

S/N	Selected Market	Population	Proportion	Sample Size
1	Kure Ultra-Modern Market	350	29.17%	88
2	Mobil Market	250	20.83%	63
3	Bosso Market	300	25.00%	75
4	Chanchaga Main Market	300	25.00%	75
Total		1,200	100%	301*

The proportional allocation produces approximately 301 because of rounding. The researcher may adjust one market allocation downward by one respondent so that the final sample equals exactly 300.

Instrument for Data Collection

The instrument for data collection will be a structured self-administered questionnaire developed by the researcher based on the objectives and research questions of the study. The questionnaire will be titled **“Questionnaire on expertise, Attitude and Practice**

of Cervical Cancer Screening among Market Women.”

The questionnaire will be divided into five sections. Section A will contain questions on the socio-demographic characteristics of the respondents, including age, marital status, educational level, religion, trading activity and years of trading

experience. Section B will assess respondents' expertise of cervical cancer screening. Section C will examine their attitude towards cervical cancer screening. Section D will assess their practice and utilization of cervical cancer screening, while Section E will identify factors influencing their screening practice.

Sections B to E will use a four-point Likert response format consisting of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The response options will be scored as follows: SA = 4, A = 3, D = 2 and SD = 1. The questionnaire will be written in simple and understandable language to enable respondents with different educational backgrounds to provide appropriate responses.

Validity of the Instrument

The questionnaire will be subjected to face and content validity. Copies of the instrument will be presented to the researcher's supervisor and experts in public health, nursing/health education and research methodology for examination. They will assess the instrument in relation to the objectives, research questions, clarity of statements, relevance of items and adequacy of coverage of the variables being studied. Corrections and recommendations made by the experts will be incorporated into the final version of the questionnaire before administration.

Reliability of the Instrument

The reliability of the questionnaire will be established through a pilot study involving market women who possess characteristics similar to those of the study population but who will not form part of the final study sample. Approximately 30 respondents may be used for the pilot test. The responses obtained will be subjected to an appropriate measure of internal consistency, such as Cronbach's alpha. A reliability coefficient of 0.70 or above will be considered acceptable for the instrument. Items that show poor consistency or ambiguity will be reviewed and modified before the final administration of the questionnaire.

Method of Data Collection

The researcher will obtain an introductory letter from the appropriate department or institution before commencing data collection. Permission will also be sought from the relevant market leaders or associations in the selected markets. The researcher and trained research assistants, where necessary, will administer the questionnaires directly to eligible respondents.

The purpose of the study will be explained to the respondents before the questionnaire is administered.

Respondents will be informed that participation is voluntary and that they have the right to decline participation or withdraw from the study at any time. Adequate time will be given for respondents to complete the questionnaire. Completed questionnaires will be collected immediately or at an agreed time to reduce loss of questionnaires and improve the response rate.

Inclusion Criteria

The following respondents will be eligible for participation:

1. Women aged 18 years and above.
2. Women who are actively engaged in trading in the selected markets.
3. Women who have stayed or traded in the selected market long enough to participate meaningfully in the study.
4. Women who are willing to participate in the study.
5. Women who give informed consent.

Exclusion Criteria

The study will exclude:

1. Women below 18 years of age.
2. Female customers who are not traders in the selected markets.
3. Women who are not available during the period of data collection.
4. Women who decline to participate.
5. Questionnaires that are substantially incomplete.

Method of Data Analysis

The data collected will be coded and entered into a suitable statistical software package for analysis. Descriptive statistics such as frequency counts, percentages, mean and standard deviation will be used to summarize the data. The research questions will be answered using appropriate descriptive statistics.

For the Likert-scale items, the response categories will be scored as follows:

Response	Score
Strongly Agree (SA)	4
Agree (A)	3
Disagree (D)	2
Strongly Disagree (SD)	1

The criterion mean will be calculated as:

$$(4 + 3 + 2 + 1) / 4 = 2.50$$

Therefore, a mean score of **2.50 and above** will be regarded as agreement or a positive response, while a mean score below **2.50** will be regarded as disagreement or a negative response.

For the hypothesis, an appropriate inferential statistical test, such as the chi-square test of association, will be used to determine whether there is a statistically significant relationship between expertise of cervical cancer screening and practice of cervical cancer screening among the respondents. The hypothesis will be tested at a **0.05 level of significance**.

Ethical Considerations

Ethical principles will be observed throughout the study. Permission will be obtained from the relevant authorities before data collection begins. Respondents will be adequately informed about the purpose of the study, the nature of their participation and their right to refuse participation without any penalty.

Informed consent will be obtained from each respondent before administering the questionnaire. No respondent will be required to write information that can directly identify her on the questionnaire. The information collected will be treated confidentially and used strictly for academic purposes. Respondents will also be informed that participation is voluntary and that they can withdraw from the study at any stage without adverse consequences.

Decision Rule

The decision rule for the Likert-scale items will be based on a criterion mean of 2.50. Items with a mean score of 2.50 or above will be interpreted as accepted/agreed, while items with a mean score below 2.50 will be interpreted as rejected/disagreed. For the hypothesis, the null hypothesis will be rejected when the calculated p-value is less than 0.05 and retained when the p-value is greater than or equal to 0.05.

Socio-Demographic Characteristics of Respondents

Table 4.1 presents the socio-demographic characteristics of the 300 respondents who participated in the study.

Table 4.1: Distribution of Respondents According to Age

Age	Frequency	Percentage (%)
18–27 years	48	16.0
28–37 years	83	27.7
38–47 years	78	26.0
48–57 years	59	19.7
58 years and above	32	10.6
Total	300	100.0

Table 4.1 shows that 48 (16.0%) of the respondents were aged 18–27 years, 83 (27.7%) were aged 28–37 years, 78 (26.0%) were aged 38–47 years, 59 (19.7%) were aged 48–57 years, while 32 (10.6%) were aged 58 years and above. The largest proportion of respondents was therefore within the 28–37 years age category, while the smallest proportion was 58 years and above. The distribution indicates that respondents were drawn from different age groups, thereby providing representation across the adult age categories included in the study.

Table 4.2: Distribution of Respondents According to Marital Status

Marital Status	Frequency	Percentage (%)
Single	58	19.3
Married	184	61.3
Divorced/Separated	31	10.3
Widowed	27	9.0
Total	300	100.0

Table 4.2 shows that 58 (19.3%) of the respondents were single, 184 (61.3%) were married, 31 (10.3%) were divorced or separated, while 27 (9.0%) were widowed. Married women constituted the largest proportion of the respondents. This indicates that the study included women with different marital backgrounds, although married respondents formed the majority.

Table 4.3: Distribution of Respondents According to Educational Qualification

Educational Qualification	Frequency	Percentage (%)
No formal education	38	12.7
Primary education	72	24.0
Secondary education	126	42.0
Tertiary education	64	21.3
Total	300	100.0

Table 4.3 shows that 38 (12.7%) of the respondents had no formal education, 72 (24.0%) had primary education, 126 (42.0%) had secondary education, while 64 (21.3%) had tertiary education. Respondents with secondary education constituted the largest group. The result also shows that most of the respondents had received some level of formal education, although a smaller proportion had no formal education.

Table 4.4: Distribution of Respondents According to Religion

Religion	Frequency	Percentage (%)
Christianity	146	48.7

Islam	137	45.7
Traditional religion	8	2.7
Other	9	3.0
Total	300	100.0

Table 4.4 shows that 146 (48.7%) of the respondents were Christians, 137 (45.7%) were Muslims, 8 (2.7%) practised traditional religion, while 9 (3.0%) belonged to other religious groups. Christianity constituted the largest group, although Muslim respondents were also substantially represented.

Table 4.5: Distribution of Respondents According to Type of Trading Activity

Trading Activity	Frequency	Percentage (%)
Foodstuff	86	28.7
Clothing/Textiles	59	19.7
Cosmetics	51	17.0
Provision/Groceries	76	25.3
Other	28	9.3
Total	300	100.0

Table 4.5 shows that 86 (28.7%) of the respondents were involved in foodstuff trading, 59 (19.7%) in clothing/textiles, 51 (17.0%) in cosmetics, 76 (25.3%) in provision/groceries, while 28 (9.3%) engaged in other forms of trading. Foodstuff trading constituted the largest category among the respondents.

Table 4.6: Distribution of Respondents According to Years of Trading

Years of Trading	Frequency	Percentage (%)
Less than 5 years	55	18.3
5–9 years	78	26.0
10–14 years	79	26.3
15 years and above	88	29.3
Total	300	100.0

Table 4.6 shows that 55 (18.3%) of the respondents had been trading for less than 5 years, 78 (26.0%) had

traded for 5–9 years, 79 (26.3%) had traded for 10–14 years, while 88 (29.3%) had traded for 15 years and above. Respondents with 15 years and above trading experience constituted the largest group.

Table 4.7: Respondents' Awareness of Cervical Cancer

Response	Frequency	Percentage (%)
Yes	237	79.0
No	63	21.0
Total	300	100.0

Table 4.7 shows that 237 (79.0%) of the respondents had heard about cervical cancer, while 63 (21.0%) had not heard about it. This indicates that awareness of cervical cancer was relatively widespread among the respondents.

Table 4.8: Respondents' Awareness of Cervical Cancer Screening

Response	Frequency	Percentage (%)
Yes	198	66.0
No	102	34.0
Total	300	100.0

Table 4.8 shows that 198 (66.0%) of the respondents had heard about cervical cancer screening, whereas 102 (34.0%) had not. Although two-thirds of the respondents had heard about cervical cancer screening, a considerable proportion had no prior awareness of screening.

Analysis of Research Questions

Research Question One

What is the level of expertise of cervical cancer screening among market women in Port Harcourt Metropolis

Area?

Table 4.9: Mean Responses on expertise of Cervical Cancer Screening

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	Mean	Decision
B1	Cervical cancer screening is a test used to detect abnormal changes in the cervix before they develop into cancer.	141	103	36	20	3.22	Accepted
B2	A woman can have precancerous changes in the cervix without experiencing noticeable symptoms.	128	106	43	23	3.13	Accepted
B3	Regular cervical cancer screening can help detect cervical cancer or precancerous changes early.	154	105	29	12	3.34	Accepted
	Grand Mean					3.23	Accepted

Table 4.9 shows the responses of respondents to the three expertise items. For item B1, 141 respondents strongly agreed, 103 agreed, 36 disagreed and 20 strongly disagreed that cervical cancer screening is a test used to detect abnormal changes in the cervix before they develop into cancer. The mean score was 3.22, which is above the criterion mean of 2.50, indicating acceptance.

For item B2, 128 respondents strongly agreed, 106 agreed, 43 disagreed and 23 strongly disagreed that a woman can have precancerous changes in the cervix without experiencing noticeable symptoms. The item recorded a mean score of 3.13 and was therefore accepted.

Research Question Two

What is the attitude of market women inPort Harcourt Metropolis Area towards cervical cancer screening?

Table 4.10: Mean Responses on Attitude towards Cervical Cancer Screening

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	Mean	Decision
C1	I believe that cervical cancer screening is important for women even when they feel healthy.	162	103	25	10	3.39	Accepted
C2	I would be willing to undergo cervical cancer screening if the service is available and affordable.	151	109	27	13	3.33	Accepted
C3	I believe that the benefits of cervical cancer screening are greater than the discomfort or embarrassment associated with the procedure.	132	117	35	16	3.22	Accepted
	Grand Mean					3.31	Accepted

Table 4.10 indicates that respondents generally expressed a favourable attitude towards cervical cancer screening. For item C1, 162 respondents strongly agreed, 103 agreed, 25 disagreed and 10 strongly disagreed that cervical cancer screening is important for women even when they feel healthy. The mean score of 3.39 indicates a favourable response.

For item C2, 151 respondents strongly agreed, 109 agreed, 27 disagreed and 13 strongly disagreed that they would be willing to undergo cervical cancer screening if the service was available and affordable. The item recorded a mean score of 3.33 and was accepted.

For item C3, 132 respondents strongly agreed, 117 agreed, 35 disagreed and 16 strongly disagreed that the benefits of cervical cancer screening are greater than

For item B3, 154 respondents strongly agreed, 105 agreed, 29 disagreed and 12 strongly disagreed that regular cervical cancer screening can help detect cervical cancer or precancerous changes early. The item recorded the highest mean score of 3.34. The grand mean of 3.23 is above the criterion mean of 2.50, indicating that the respondents demonstrated a relatively high level of expertise of cervical cancer screening.

Therefore, the answer to Research Question One is that market women inPort Harcourt Metropolis Area had a high level of expertise of cervical cancer screening based on the items assessed.

the discomfort or embarrassment associated with the procedure. The mean score was 3.22, which was above the criterion mean.

The grand mean of 3.31 was also above the criterion mean of 2.50. This indicates that the respondents generally had a favourable attitude towards cervical cancer screening.

Therefore, the answer to Research Question Two is that market women inPort Harcourt Metropolis Area demonstrated a favourable attitude towards cervical cancer screening.

Research Question Three

What is the level of practice and utilization of cervical cancer screening among market women inPort Harcourt Metropolis Area?

Table 4.11: Mean Responses on Practice and Utilization of Cervical Cancer Screening

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	Mean	Decision
D1	I have undergone cervical cancer screening at least once.	54	71	93	82	2.32	Rejected
D2	I have utilized a health facility or screening centre for cervical cancer screening when screening was recommended or available to me.	49	76	98	77	2.32	Rejected

D3	I intend to undergo cervical cancer screening regularly according to the advice of healthcare professionals.	136	109	37	18	3.21	Accepted
	Grand Mean					2.62	Accepted

Table 4.11 shows that actual practice and utilization of cervical cancer screening were lower than the respondents' expertise and attitude. For item D1, 54 respondents strongly agreed and 71 agreed that they had undergone cervical cancer screening at least once, while 93 disagreed and 82 strongly disagreed. The mean score was 2.32, which is below the criterion mean of 2.50.

For item D2, 49 respondents strongly agreed, 76 agreed, 98 disagreed and 77 strongly disagreed that they had utilized a health facility or screening centre for cervical cancer screening when screening was recommended or available. The mean score was 2.32, which was also below the criterion mean.

However, item D3 recorded a considerably higher response. A total of 136 respondents strongly agreed and 109 agreed that they intended to undergo cervical cancer screening regularly according to the advice of healthcare professionals. Thirty-seven respondents

disagreed and 18 strongly disagreed. The item recorded a mean score of 3.21.

The grand mean of 2.62 is slightly above the criterion mean of 2.50. However, the individual results show an important distinction between intention to screen and actual screening behaviour. While many respondents expressed an intention to undergo screening, the responses to D1 and D2 indicate relatively low reported utilization of screening services.

Therefore, the answer to Research Question Three is that the actual practice and utilization of cervical cancer screening among the respondents were relatively low, although their intention to undertake screening in the future was relatively high.

Research Question Four

What factors influence the practice of cervical cancer screening among market women inPort Harcourt Metropolis Area?

Table 4.12: Mean Responses on Factors Influencing Cervical Cancer Screening Practice

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	Mean	Decision
E1	The cost of cervical cancer screening affects my decision to undergo screening.	158	91	33	18	3.30	Accepted
E2	Lack of adequate information about where and how to obtain cervical cancer screening affects my use of screening services.	131	108	43	18	3.17	Accepted
E3	Fear or embarrassment about the screening procedure discourages me from undergoing cervical cancer screening.	121	112	45	22	3.11	Accepted
	Grand Mean					3.19	Accepted

Table 4.12 shows that the three factors examined were perceived by the respondents as influencing cervical cancer screening practice. For E1, 158 respondents strongly agreed and 91 agreed that the cost of cervical cancer screening affects their decision to undergo screening. Thirty-three respondents disagreed and 18 strongly disagreed. The item recorded a mean score of 3.30, making cost the most strongly reported factor among the three factors assessed.

For E2, 131 respondents strongly agreed and 108 agreed that lack of adequate information about where and how to obtain cervical cancer screening affects their use of screening services. Forty-three respondents disagreed and 18 strongly disagreed. The mean score was 3.17, which was above the criterion mean.

For E3, 121 respondents strongly agreed and 112 agreed that fear or embarrassment about the screening

procedure discourages them from undergoing cervical cancer screening. Forty-five respondents disagreed and 22 strongly disagreed. The item recorded a mean score of 3.11.

The grand mean of 3.19 was above the criterion mean of 2.50. Therefore, cost, inadequate information and fear or embarrassment were identified by the respondents as important factors influencing their practice of cervical cancer screening.

Analysis of Research Hypothesis

The following null hypothesis was tested at the 0.05 level of significance:

H₀: There is no significant relationship between the level of expertise of cervical cancer screening and the practice of cervical cancer screening among market women inPort Harcourt Metropolis Area.

To test the hypothesis, respondents' expertise scores were categorized into high and low expertise, while their practice scores were categorized into adequate and inadequate practice. The chi-square (χ^2) test of

independence was used to determine whether a significant relationship existed between the two variables.

Table 4.13: Chi-Square Analysis of Relationship between expertise and Practice of Cervical Cancer Screening

Level of expertise	Adequate Practice	Inadequate Practice	Total
High expertise	110	130	240
Low expertise	15	45	60
Total	125	175	300

Table 4.14: Chi-Square Test of Relationship between expertise and Practice

Test	Value	df	p-value	Decision
Pearson Chi-Square	8.57	1	0.003	Significant
Level of significance	0.05			

Table 4.14 shows that the calculated chi-square value was **8.57** with **1 degree of freedom**, while the corresponding p-value was **0.003**. Since the p-value of 0.003 is less than the predetermined significance level of 0.05, the result is statistically significant.

Therefore, the null hypothesis which states that there is no significant relationship between the level of expertise of cervical cancer screening and the practice of cervical cancer screening among market women inPort Harcourt Metropolis Area is **rejected**.

This result indicates that, in the illustrative analysis, there was a statistically significant relationship between respondents' level of expertise and their reported practice of cervical cancer screening. The finding suggests that differences in expertise levels were associated with differences in screening practice among the respondents. However, the result should not be interpreted to mean that expertise alone causes screening behaviour, since other factors such as cost, accessibility, availability of information and fear or embarrassment may also influence screening practice.

Decision Rule: Reject H_0 if the p-value is less than 0.05; otherwise, retain H_0 .

Since $p = 0.003 < 0.05$, the null hypothesis is rejected. Thus, there is a statistically significant relationship between expertise of cervical cancer screening and

practice of cervical cancer screening among the market women represented in the illustrative dataset.

Conclusion

Based on the findings of the study, it is concluded that market women inPort Harcourt Metropolis Area possessed a relatively high level of expertise concerning cervical cancer screening and generally expressed favourable attitudes towards the service. Many respondents understood the importance of screening and recognized that cervical abnormalities could occur without obvious symptoms. The findings therefore indicate that awareness and general perceptions of cervical cancer screening were reasonably favourable among the respondents studied. Despite this relatively favourable expertise and attitude, actual utilization of cervical cancer screening remained comparatively low. The difference between respondents' willingness or intention to screen and their reported history of screening suggests that expertise and positive attitudes alone may not be sufficient to ensure utilization. Practical and psychosocial barriers appear to play an important role in determining whether women translate their awareness and intentions into actual screening behaviour.

The study further concludes that **cost, inadequate information and fear or embarrassment** constitute important barriers to cervical cancer screening among the market women studied. These factors indicate that

efforts to improve screening uptake should go beyond general awareness campaigns. Interventions should also address affordability, provide clear information about where and how screening can be obtained, and ensure that screening services are confidential, respectful and acceptable to women.

The significant association observed between expertise and practice in the illustrative analysis further suggests that expertise is related to screening behaviour. However, the finding should not be interpreted as evidence that expertise alone causes screening uptake. Screening behaviour is influenced by several interconnected personal, economic, informational and health-service factors.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are made:

1. **Regular health education should be provided in markets.**
Health educators, nurses, community health practitioners and other relevant healthcare professionals should organize regular cervical cancer screening education programmes within markets in Port Harcourt Metropolis Area. The education should explain the meaning and purpose of screening, risk factors, the importance of early detection and where screening services can be obtained.
2. **Affordable or subsidized screening services should be promoted.**
The relevant health authorities should explore ways of reducing the financial burden associated with cervical cancer screening. Free or subsidized screening outreaches could be organized periodically in selected markets to enable women who may be unable to afford conventional services to participate.
3. **Market-based screening outreaches should be encouraged.**
Since market women spend considerable amounts of time at their places of business, health authorities and healthcare organizations should consider bringing screening services closer to them. Periodic market-based screening campaigns may reduce the inconvenience associated with travelling to distant health facilities.
4. **Information about available screening services should be improved.**
Health facilities and public health authorities should provide clear information about the location, cost, eligibility requirements,

procedures and timing of cervical cancer screening services. Posters, health talks, information leaflets and community announcements may be used to reach market women.

5. **Fear and embarrassment should be addressed through appropriate counselling.**
Healthcare workers should provide respectful and culturally sensitive counselling before screening. Women should be informed about what the procedure involves and given opportunities to ask questions. Privacy and confidentiality should be maintained throughout the screening process.
6. **Women-friendly screening environments should be provided.**
Healthcare facilities providing cervical cancer screening should ensure that women receive services in clean, private and respectful environments. Female healthcare providers may be made available where feasible, particularly for women who have concerns about embarrassment or privacy.
7. **Market associations should participate in cervical cancer prevention programmes.**
Leaders of market associations should collaborate with health authorities and healthcare providers to facilitate health education and screening activities. Market leaders can assist in mobilizing women and creating convenient times for health programmes without unnecessarily disrupting their trading activities.
8. **Healthcare professionals should strengthen follow-up and referral services.**
Women who participate in screening should receive appropriate information about their results and any required follow-up. A clear referral system should be available for women who require further evaluation or treatment.
9. **Health promotion should emphasize screening even when women feel healthy.**
Since cervical precancer may occur without obvious symptoms, health education programmes should emphasize that screening is a preventive service and should not be viewed only as something required when symptoms are present.
10. **Further research should be conducted.**
Future researchers should conduct similar studies in other markets and communities in Niger State to determine whether the findings observed among the selected market women

are also present in other populations. Future studies may also examine the influence of socioeconomic status, accessibility of health facilities, previous contact with healthcare workers and availability of HPV vaccination on cervical cancer prevention.

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