



## Knowledge of Female Students in Public Tertiary Institutions in Imo about Cervical Cancer Screening

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### Abstract

*Cervical cancer is one of the leading causes of mortality among women worldwide, making it a major public health concern. This study assessed the knowledge of female students in public tertiary institution in Imo about cervical cancer screening. The study, guided by three research questions and two null hypotheses tested at the 0.05 significance level used a descriptive survey design. A sample size of 900 students was drawn from a population of 11,825 female undergraduates. The research instrument, "Knowledge of Cervical Cancer Screening Test (KCCST)" was validated and found reliable for data collection, with a coefficient alpha of 0.89. Data were collected through direct delivery and analysed using Statistical Package for Social Sciences (SPSS), employing descriptive statistics of frequencies and percentage to answer research questions and Chi square was also used to test the hypotheses. The findings of the study revealed that majority (83.7%) of female students in public tertiary institutions possessed high level of knowledge about cervical cancer screening, while a smaller portion (16.3%) had moderate knowledge. The findings further revealed that there was no significant difference in the percentages of female students with knowledge of cervical cancer screening based on their ages and level of education. The authors recommended among others that health education departments in tertiary institutions, public health organizations, and non-governmental organizations (NGOs) should focus on cancer knowledge should develop and implement targeted educational programmes to address the knowledge gaps identified among students with moderate knowledge.*

**Keywords:** Cervical cancer, screening, female students, knowledge, public, tertiary institutions

### Introduction

Cervical cancer is a health issue that is apparently perceived today seen as the most common genital cancer and one of the leading causes of death among females globally. Although it is known to be readily detectable in its premalignant stage, cervical cancer according to World Health Organisation (WHO, 2020), is perceived as the fourth most common cancer in Nigeria, and Imo State is not an exception. Although this cancer is preventable by screening for premalignant lesions, female students in public tertiary institutions in Imo State seem unaware of the risks of the problem, the importance of screening, and the preventive measures they can take. Additionally, as Nwosu et al. (2012) noted, there is seemingly a lack of health education about cervical cancer screening, resulting in a negative attitude towards the practice. Many female students also seem to lack access to health services and resources that can help them detect and treat cervical cancer.

Cervical cancer is a type of cancer that begins in the cells of the cervix. According to American Cancer Society (2020), it is a malignant tumour that arises from the abnormal growth of cells in the cervix and is usually caused by persistent infection with certain high-risk types of the human papillomavirus (HPV). Cervical cancer usually develops slowly over time and may not have any signs or symptoms until it becomes advanced. Therefore, cervical



cancer is defined in this study as a type of cancer that occurs in the cells of the cervix, the lower part of the uterus that connects to the vagina, and is usually caused by the human papillomavirus (HPV).

Cervical cancer is preventable through regular screening tests and the use of the HPV vaccine. According to Centres for Disease Control and Prevention (2021), screening tests can detect abnormal cells in the cervix before they become cancerous, and the HPV vaccine can prevent infection with the virus that causes cervical cancer. Cervical cancer screening, also known as a Pap test, as American Cancer Society noted, is a procedure used to detect abnormal cells on the cervix that may become cancerous. It is an important part of preventive health care, as it can help detect pre-cancerous changes before they become cancerous.

Cervical cancer screening is a safe and effective way to detect pre-cancerous changes in the cervix. The U.S. Department of Health and Human Services, (2021) recommended for all women, regardless of their sexual orientation or number of sexual partners to get screened on a regular basis, regardless of whether or not they are sexually active.

Cervical cancer screening has proven to be an effective method of detecting the disease. The American Cancer Society (ACS, 2021) recommends that all women between the ages of 21 and 65 years receive regular cervical cancer screenings. Also, the ACS notes that these screenings have been shown to reduce the risk of death from cervical cancer by up to 90 per cent. Population-based cervical smear screening programmes for cervical cancer have also shown the effectiveness of screening in reducing mortality. Thus, it can be used to prevent the development of more advanced stages of the disease among tertiary education students in Imo State.

Students in tertiary institutions are important population target for cervical cancer screening, as they are at the age where they can benefit from early intervention. In addition, the students may be more knowledgeable and are likely to engage in healthy behaviours, which can reduce the risk of developing cervical cancer. However, research conducted by Okafor et al. (2018) found that only 14.3 per cent of the tertiary education students in Imo State had heard of cervical cancer. Furthermore, only 8.4 per cent of the students had knowledge of the risk factors associated with the disease.

A study conducted by Nwabueze et al. (2019) found that only 9.5percent of the tertiary education students had ever been tested for cervical cancer. Of these, only 6.3percent had ever had a pap smear. These findings suggest the importance of cervical cancer screening among tertiary education students, suggesting that tertiary education students, including those in Imo State, need to learn more about cervical cancer and how to prevent it. Health education campaigns and health promotion activities are necessary in order to increase the level of knowledge and create a positive approach towards cervical cancer screening among tertiary education students, especially those in Imo State (Adebayo et al., 2017; Okafor and Ofoegbu, 2019).

Knowledge has traditionally been defined as justified true belief (JTB), a concept that traces back to Plato. According to this model, to know something, one must believe it, it must be true, and there must be justification for the belief (Ichikawa & Steup, 2018). Knowledge can also be viewed as a complex network of interconnected pieces of information (Russell & Norvig, 2020). This perspective aligns with the understanding of knowledge as a dynamic system where information is constantly updated, validated, and connected within a web of related data. From a sociological perspective, knowledge is defined according to Berger and Luckmann (2016) as a product of social processes and interactions. This constructivist view emphasizes that knowledge is not merely an individual's possession but is collectively developed through communication, collaboration, and cultural contexts. This understanding highlights the role of social norms, institutions, and power dynamics in shaping what is accepted as knowledge.



Knowledge about cervical cancer screening is often shaped by social interactions and collective experiences. Peer education and group discussions have proven effective in increasing knowledge towards screening. Eze et al. (2012) stated that peer-led health education programmes were successful in increasing knowledge about screening for cervical cancer among female students in Nigerian universities. Similarly, Okunowo et al. (2018) reported that contextualized educational campaigns tailored to the socio-cultural realities of students significantly improved their participation in cervical cancer screening programmes. Therefore, Knowledge regarding cervical cancer screening among tertiary education students can be operationally defined as a multifaceted construct encompassing justified true belief, a dynamic network of interconnected information, and a product of social processes and interactions. This definition integrates various perspectives to capture the complexity of how knowledge is formed, validated, and utilized in this context.

Knowledge about cervical cancer screening among tertiary education students in Nigeria is crucial in determining their participation in preventive health measures. Research by Nwozor and Oragudosi (2013) indicated that while many female students were aware of cervical cancer, few had accurate knowledge about screening methods and their importance. This gap between awareness and accurate knowledge (true beliefs) often results in low participation rates in screening programmes. Nnodu et al. (2010) found that educational programmes significantly improved students' understanding of HPV and cervical cancer, suggesting that continuous and comprehensive information dissemination can enhance students' knowledge and lead to better health practices. This multidimensional understanding of knowledge has the tendency directly impact students' behaviours towards cervical cancer screening.

Furthermore, knowledge of cervical cancer screening may likely vary among female students in Imo State based on age, level of education and socio-economic status. According to Rao et al. (2020), age, level of education and socio-economic status may be important determinants of knowledge towards cervical cancer screening. Empirical studies have shown that knowledge and awareness of cervical cancer and screening is low among people of all ages, especially among the elderly and less educated. Studies such as de Groot et al. (2018) and Mpofo et al. (2018) have found that women aged 45 years and above and those with lower educational attainment are less likely to have been screened for cervical cancer compared to younger women and those with higher education. As Sahu et al. (2020) noted, this discrepancy is even greater in developing countries, where access to healthcare is limited and low awareness of cervical cancer.

Studies have shown that age and educational level have a strong influence on knowledge of cervical cancer screening. Younger women tend to have higher levels of knowledge and are more likely to be disposed towards screening, while women with higher education levels tend to have higher levels of knowledge and are more likely to take part in cervical cancer screening than those with lower educational qualifications. However, overall knowledge of cervical cancer and its screening is still low in many parts of the world, with separate studies conducted in Nigeria such as (Nwabueze, et al., 2019; Oyinlola, et al., 2017) revealing that knowledge of cervical cancer screening was low, with less than 10 per cent reporting knowledge of Pap smear test.

Although cervical cancer is a preventable, it is still responsible for the deaths of thousands of women each year, and is particularly prevalent in developing countries. Imo State, Nigeria, is no exception. Unfortunately, there is a dearth of researches that examine the knowledge of cervical cancer screening among female students in public tertiary institutions in the Imo State context. This dearth of research is concerning, as it leaves the female student population in Imo State vulnerable to the risks of cervical cancer. Without adequate knowledge of cervical cancer screening, female persons may not be aware of the importance of regular



screening, or may be too embarrassed or afraid to seek help in getting screened. As a result, these women may be at an increased risk of developing cervical cancer.

Furthermore, the dearth of research in the Imo State leaves the public health sector unable to design effective, evidence-based interventions to promote cervical cancer screening among female students. Without sufficient evidence, public health interventions may not be as successful or cost-effective. Therefore, to address the gap in knowledge, the researcher is motivated to carry out this study. The study seeks to investigate knowledge of female students in public tertiary institution in Imo State about Cervical cancer screening.

Cervical cancer is one of the leading causes of mortality among women worldwide, making it a major public health concern (Centres for Disease Control and Prevention, 2019). Despite the availability of screening and preventive treatments, WHO (2020) stated that cervical cancer remains a major problem in many parts of the world. In Imo State, Nigeria, the situation is particularly alarming, with cervical cancer accounting for the highest rate of cancer-related mortality among women in the State (Okafor, et al., 2019). Despite the efforts of the government, Non-Governmental Organisations (NGOs), associations, and other stakeholders, there seemed noticeable increases in the risk of developing cervical cancer, possibly due to lack of knowledge of the people leading to late detection and treatment of potential issues.

Despite various scholarly endeavours both within and outside Nigeria, there exists a noticeable dearth of empirical investigations specifically addressing the knowledge of cervical cancer screening among female students in public tertiary institutions in Imo State. Notably, studies like Okafor et al. (2018) and Nwabueze et al. (2019) underscore significant gaps in awareness and engagement with cervical cancer screening among tertiary education students in the region.

This scarcity of research focused on the targeted demographic emphasizes the need for a comprehensive investigation. The current study aims to bridge this gap by empirically exploring the knowledge of cervical cancer screening among female students in public tertiary institutions in Imo State. The identified gaps in existing literature highlight a critical need for this research to contribute valuable insights and recommendations. Therefore, the problem addressed in this study is to determine the knowledge of female students in public tertiary institution in Imo State about Cervical cancer screening.

### **Purpose of the Study**

The purpose of this study was to examine the knowledge of female students in public tertiary institution in Imo State about Cervical cancer screening. Specifically, the study determined the:

1. percentage of female students in Imo State public tertiary institutions with knowledge of cervical cancer screening;
2. percentage of female students in Imo State public tertiary institutions with knowledge of cervical cancer screening based on their ages; and
3. Percentage of female students in Imo State public tertiary institutions with knowledge of cervical cancer screening based on their levels of education.

### **Hypotheses**

The following null hypotheses were tested at 0.05 level of significance.

1. There is no significant difference in the percentages of female students in Imo State public tertiary institutions with knowledge about cervical cancer screening based on their ages.
2. There is no significant difference in the percentages of female students in Imo State public tertiary institutions with knowledge about cervical cancer screening based on their levels of education.



## Methods

This section outlines the various procedures utilized in conducting the study, divided into several key sections:

### Research Design

The study adopted a descriptive survey design, which is appropriate for collecting and analyzing data from a sample to represent a larger population. This method was chosen to gather opinions on knowledge of female students in tertiary institutions towards cervical cancer screening.

### Area of the Study

The research was conducted in Imo State, Nigeria, a region with a diverse and significant population of female students in public tertiary institutions, providing a strong foundation for studying cervical cancer screening knowledge among undergraduate students in tertiary institutions.

### Population of the Study

The target population consisted of 11,825 female students from eight tertiary institutions in Imo State, representing universities, polytechnics, and colleges of education.

### Sample and Sampling Techniques

A sample size of 900 female students was drawn using a multi-stage sampling method. Institutions were clustered based on type, and students were selected from 36 departments using a random sampling technique.

### Instruments for Data Collection

The instrument for data collection is titled, "Knowledge of Cervical Cancer Screening Test (KCCST)". Knowledge of Cervical Cancer Screening Test (KCCST) was designed to assess the knowledge of cervical cancer screening among the study participants. It includes 20 items that address different aspects of the screening process. Each item has two possible response options of "True" or "False".

### Method of Data Collection

Data were collected directly from participants using research assistants who distributed questionnaires during lecture sessions.

### Method of Data Analysis

Data were analyzed using Statistical package for Social Sciences (SPSS) version 23. Descriptive statistics frequencies and percentages were employed for answering research questions while ANOVA and Chi-square tests were used for hypothesis testing at a 0.05 significance level.

## Results

Data collected from the field of study were analysed and presented in tables.

**Table 1: Range of Scores Showing the Frequency and Percentage of Female Students in Imo State Public Tertiary Institutions with Knowledge of Cervical Cancer Screening**

Range of Scores	F	%	Remark
0 to 16	136	16.3	Moderate
34 to 50	696	83.7	High



Total	832	100.0
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Table 1 revealed that 83.7 per cent of the female students in Imo State public tertiary institutions, with scores ranging from 34 to 50 had a high level of knowledge about cervical cancer screening, while 16.3 per cent, with scores ranging from 0 to 16 had moderate knowledge. This indicates that the majority of female students in these institutions were well-informed about cervical cancer screening.

**Table 2: Summary Presenting the Crosstabulation of Age Distribution and Knowledge of Cervical Cancer Screening**

Age Distribution	n	Knowledge of Cervical Cancer Screening		Total
		Moderate %	High %	
17-25 Years	555	16.0	84	100
26-34 Years	277	17.0	83	100

Table 2 shows that 16 per cent of female students in Imo State public tertiary institutions between 17-25 years had moderate knowledge of cervical cancer screening, while a total of 84.0 per cent of this age group had high knowledge. The table also show that 17 per cent of female students between 26-34 years have moderate knowledge while a total of 83.0 per cent of this age group have high knowledge.

**Table 3: Summary Presenting the Crosstabulation on the Knowledge of Cervical Cancer Screening based on the Students' Levels of Education**

Level of Education	n	Knowledge of Cervical Cancer Screening		Total
		Moderate %	High %	
200 level	377	15.9	84.1	100
300 level	316	16.1	83.9	100
400 level	139	18.0	82.0	100

Table 3 shows the level of education and the knowledge of cervical cancer screening among students. A total of 15.9 per cent of 200-level students had moderate knowledge, 84.1 per cent had high knowledge. It also revealed that 16.1 per cent of 300-level students have moderate knowledge, while 83.9 per cent had high knowledge. The findings further revealed that 18.0 per cent of 400-level students had moderate knowledge while 82. per cent of the students had high knowledge.

**Table 4: Summary of Chi-Square Analysis on the Percentages of Female Students In Imo State Public Tertiary Institutions With Knowledge of Cervical Cancer Screening Based on their Ages**

	Value	df	p-value	Remark
Pearson Chi-Square	.117 <sup>a</sup>	1	.732	Not Significant



Continuity Correction <sup>b</sup>	.059	1
Likelihood Ratio	.117	1
Fisher's Exact Test		
Linear-by-Linear	.117	1
Association		
N	832	

Table 4 shows that at 0.05 level of significance and 1df, the Pearson Chi-Square value is 0.117 with a p-value of 0.732, suggesting no statistically significance difference. Therefore, the first null hypothesis is accepted. There was no significant difference in the percentages of female students in Imo State public tertiary institutions with knowledge of cervical cancer screening based on their ages.

**Table 5: Summary of Chi-Square Analysis on the Percentages of Female Students in Imo State Public Tertiary Institutions with Knowledge of Cervical Cancer Screening Based On their Education Levels**

	Value	df	p-value	Remark
Pearson Chi-Square	.334 <sup>a</sup>	2	.846	Not Significant
Likelihood Ratio	.328	2		
Linear-by-Linear	.249	1		
Association				
N	832			

Table 5 shows that at 0.05 level of significance and 2df, the Pearson Chi-Square value was 0.334 with a p-value of 0.846, indicating no statistically significant difference across education levels. Therefore, the second null hypothesis was accepted, indicating that there is no significant difference in the percentages of female students in Imo State public tertiary institutions with knowledge of cervical cancer screening based on their levels of education.

## Discussion

The finding of the study showed that majority of female students in Imo State public tertiary institutions used for this study possessed a high level of knowledge about cervical cancer screening, while few had moderate knowledge, indicates a generally strong awareness among these students. This result is significant because it suggests that most female students in these institutions were well-informed about cervical cancer screening, which is crucial for early detection and prevention of the disease. The high level of knowledge could be attributed to effective public health campaigns and educational programmes aimed at raising awareness about cervical cancer and its screening. These initiatives, often supported by governmental and non-governmental organizations, may have successfully reached the target population, particularly in tertiary institutions where access to information is more readily available.

Moreover, tertiary institutions are typical environments where students have greater access to resources, such as health education, seminars, and workshops. This access likely contributed to the high level of knowledge observed among female students. The presence of health-related courses or departments within these institutions could also play a role in



disseminating information about cervical cancer screening. Also, the widespread use of the internet and social media among young persons in Nigeria could also be a contributing factor. These platforms provide easy access to health information, including details about cervical cancer screening. The high level of knowledge may reflect the students' engagement with online health resources and their ability to share this information within their networks. Additionally, peer influence in academic settings might encourage students to seek information and are more likely participate in health screenings.

The current findings are consistent with those of Mbara et al. (2011), Ogwuche et al. (2013), and Usman et al. (2023), all of which highlighted a better knowledge of cervical cancer and its screening among female students in different regions. In their study on female students in Benin City, Nigeria, Mbara et al. found that a significant proportion (71.6%) of respondents was aware of cervical cancer, although their specific knowledge of risk factors and screening methods was less comprehensive. While the level of awareness in Benin City was slightly lower than the 83.7 per cent reported in the current study, both studies indicated a strong level of general awareness among female students. This consistency suggests that educational efforts across Nigerian tertiary institutions may be effectively reaching students, though there may still be gaps in deeper, more specific knowledge.

Ogwuche et al. (2013) found that a majority of respondents 79.5 per cent in the middle belt of Nigeria believed cervical cancer to be a major health problem, and 90.9 per cent considered the Pap smear an effective screening tool. The high levels of awareness observed by Ogwuche et al. were in line with the strong knowledge base reported in the current study, reinforcing the idea that awareness of cervical cancer screening was widespread among educated female populations in Nigeria. In Uganda, Usman et al. (2023) found that female university students, particularly those in medical fields, had high levels of knowledge about cervical cancer screening. Although this study was conducted outside Nigeria, the similarities in findings support the notion that higher education environments, especially those related to health professions, are conducive to increased awareness and knowledge about cervical cancer screening.

On the other hand, the current finding is not in agreement with the findings of Bekele et al. (2022). The study by Bekele et al. revealed a lower overall knowledge level of 9.3 per cent among female college students compared to the current study. This contrast between the study in Ethiopia and the current study in Nigeria may reflect differences in public health education efforts or access to information across the regions, yet it highlights the importance of continued efforts to enhance both knowledge and practice of cervical cancer screening.

The finding of the study also revealed a successful dissemination of information about cervical cancer screening across both younger and older female students in Imo State public tertiary institutions. This suggests that a strong awareness of cervical cancer screening existed among these students across both age groups. The consistency of high knowledge levels between the two age groups points to the effectiveness of information dissemination and educational efforts within the community. The reason for the finding could be because these students are usually in their early stages of higher education or have recently completed secondary education, where they may have been exposed to health education programmes that emphasised the importance of cancer screening. The high knowledge level suggests that these educational initiatives have been effective in reaching younger students. Similarly, students in this age (26-34 years) range might have had additional exposure to health information through various channels, including workplace training, community health programmes, or further academic study. This continued exposure likely contributed to the high levels of knowledge observed; reinforcing the idea that education over time leads to better awareness.





Public health campaigns in Nigeria often target reproductive health issues, including cervical cancer screening. These campaigns are typically widespread and accessible, reaching both younger and older students. The little difference in knowledge levels between the two age groups indicates that these campaigns were broadly effective, ensuring that the message about the importance of cervical cancer screening reached a wide audience. Also, with the increasing use of social media and other online platforms, both younger and older students have more opportunities to access health information. The high levels of knowledge across both age groups suggest that students were likely utilizing these resources to educate themselves about cervical cancer screening, regardless of their age.

The findings from the current study in Imo State show a strong alignment with previous researches conducted in different regions, such as those of Atayde et al. (2017), Bekele et al. (2022), and Usman et al. (2023). Usman et al. (2023). This consistency supports the notion that knowledge about cervical cancer screening among young women is generally high, regardless of age group, and that differences in knowledge levels across age groups are often minimal. Usman et al. found that students, especially those in medical fields, had high knowledge levels, with knowledge being significantly higher among respondents above 25 years of age. The current findings, where older students (26-34 years) similarly demonstrate high knowledge levels, corroborate Usman et al.'s results, suggesting that age and possibly educational exposure contribute to better understanding of cervical cancer screening.

Bekele et al (2022) found that while only 9.3 per cent of participants were knowledgeable, there was no significant difference in knowledge levels based on age groups. This finding is consistent with the current study, where the difference in moderate and high knowledge levels between the two age groups (17-25 years and 26-34 years) is minimal, reinforcing the idea that age does not significantly impact knowledge of cervical cancer screening within educated female populations. The study by Atayde et al. (2017) among women in Mexico also found that knowledge about cervical cancer screening was high across various age groups, with no significant difference based on age. This agreement with the current findings in Imo State suggests that high levels of knowledge about cervical cancer screening are a common trend among women in educational settings globally, irrespective of age. These studies collectively demonstrate that high knowledge levels about cervical cancer screening are prevalent across various age groups in different geographical settings, indicating the effectiveness of education and the wide dissemination of information among young women.

The findings of the study also revealed that there was a consistently high level of knowledge about cervical cancer screening among female students in Imo State public tertiary institutions, with no significant difference based on their academic level. Furthermore, the finding that there was no significant difference in the percentages of female students with knowledge of cervical cancer screening based on their levels of education highlights the effectiveness of the educational system in disseminating important health information uniformly across academic levels. The lack of significant difference in knowledge levels across 200, 300, and 400-level students suggested that health education on cervical cancer screening was possibly being integrated into the General Studies (GS) courses at various stages of tertiary education. This consistency apparently ensures that students, regardless of their year of study, receive the same quality and amount of information about cervical cancer screening, leading to uniformly high levels of knowledge.

The consistent high knowledge across different academic levels suggests that information about cervical cancer screening is easily accessible to all students, regardless of their year of study. This could be due to the availability of health resources, seminars, workshops, and online platforms that provide comprehensive information to students at any stage of their study. It could also mean that public health campaigns and institutional awareness



programmes targeting cervical cancer screening are reaching students effectively across different levels of education.

The current findings align with previous researches on this topic. Studies such as Bekele et al. (2022), Birhanu et al. (2012), and Atayde et al. (2017) have similarly reported high levels of knowledge among female students and women in various contexts, suggesting that education and awareness campaigns are effective in promoting knowledge about cervical cancer screening. Bekele et al. found that in Dire Dawa City, Ethiopia, a significant proportion of college and university female students had a good understanding of cervical cancer screening, although the level of knowledge varied based on factors such as age and academic level. Similarly, Birhanu et al. reported high awareness and knowledge of cervical cancer screening among reproductive-age women in Addis Ababa, Ethiopia, particularly among those with higher educational levels. Atayde et al. also observed that women in Mexico exhibited a high level of knowledge about cervical cancer screening. These findings are in line with the results from current study, where the consistent high knowledge across academic levels suggests that the students are benefiting from effective health education programmes.

### **Conclusion**

The findings of this study reveal that the majority of female students in public tertiary institutions in Imo State possess a high level of knowledge about cervical cancer screening. The analysis by age groups indicates that both younger (17-25 years) and older (26-34 years) students showed similar levels of awareness, with the majority in both groups possessing high knowledge. This suggests that age does not significantly influence knowledge levels. Additionally, the study found that across different educational levels (200, 300, and 400-level students), the majority also had high knowledge of cervical cancer screening, with no significant differences based on educational levels. These findings highlight the general effectiveness of educational efforts on cervical cancer awareness among female students, though a small portion still has moderate knowledge. Thus, there is a need for continued health education to close these knowledge gaps and further strengthen awareness of cervical cancer screening across all demographics in public tertiary institutions.

### **Recommendations**

Based on the findings of this study, the following recommendations are proposed:

Although the majority of students possess high knowledge of cervical cancer screening, a significant portion still has moderate knowledge.

1. Health education departments in tertiary institutions should design targeted educational interventions aimed at students with moderate knowledge. These programmes should provide comprehensive information on cervical cancer prevention, screening methods, and the importance of early detection.
2. Given that both younger (17-25 years) and older (26-34 years) students exhibited moderate knowledge levels, educational campaigns should target all age groups to ensure uniform and comprehensive understanding. Age-specific approaches could be beneficial, addressing the different concerns and misconceptions that may be prevalent in each age group.
3. To further increase cervical cancer screening awareness, universities and colleges in Imo State should consider integrating health education related to cervical cancer into the curriculum. This could ensure that students from all levels of education, especially those with moderate knowledge, receive continuous and structured learning on this critical health issue.
4. Since there is no significant difference in knowledge levels across educational stages (200-level, 300-level, and 400-level students), it is essential that health promotion



initiatives reach students at every stage of their academic journey. Collaboration between healthcare providers and educational institutions can facilitate campus-wide health promotion activities.

5. Despite the high level of knowledge among the majority, continuous public awareness campaigns should be sustained within tertiary institutions. Public health organizations, NGOs, and healthcare providers should collaborate to offer consistent information on cervical cancer and encourage preventive measures like screening.

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