ASSESSMENT OF THE LEVEL OF KNOWLEDGE AND ACCEPTANCE OF HUMAN PAPILLOMA VIRUS (HPV) VACCINATION AMONG GOVERNMENT GIRLS SENIOR SECONDARY SCHOOL IN FUNTUA METROPOLIS OF KATSINA STATE

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Abstract

The study explored the School-Based Human Papilloma Virus (HPV) Vaccination on Adolescent Girls, Knowledge and Acceptability among Government Girls Senior Secondary School in Funtua Metropolis of Katsina State. Two research objectives, two research questions and two research hypotheses were formulated f respectively to guide the study. A descriptive survey design was employed using sample of 365 randomly selected respondents from three Government Girls Senior Secondary Schools in Funtua Metropolis of Katsina State. The reliability of the instrument used was established using split-half method through a pilot test in Bakori Local Government Area, involved 30 respondents. The instrument adopted for data collection was Knowledge and Acceptance of Human Papilloma Virus Inventory (KASBHPVI) was developed by the researcher. The Spearman ranked order coefficient of 0.578 was obtained, indicating consistency and reliability of the instrument. Chi-square test was employed, at a significance level of 0.05 to access the hypotheses. The Findings revealed that there is no significant level of knowledge and acceptability of human papilloma virus vaccination among girls of government senior secondary schools in Funtua metropolis, Katsina State. The study recommended among others the need for health education on the Human Papilloma Virus in the study population area.

Keywords: School-Based, Human papilloma Virus, Vaccination, Knowledge, Awareness

Introduction

Human papilloma virus or cervical cancer is the second most common cancer among women between 20 and 44 years worldwide. Globally, about 500,000 new cases and about 274,000 deaths occur annually. More than 80% of these deaths occur in developing countries, where cervical cancer is the leading cause of cancer deaths among adult women. This is projected to increase to 90% by 2020 (Turiho, Okello, & Katahoire, 2014). The World Health Organization, (WHO, 2007) came up with the study of sexually active young women seeking health services at a health center in Kampala, Uganda found 75% infected with one or more HPV types within 2004-2006 The mortality rate are lower than incidence with a ratio of mortality to incidence of 52%. The crude incidence rate of cervical cancer is 19.3 in Nigeria, 19.9 in West Africa, and 15.8 worldwide Cervical cancer is predominantly caused by persistent infection with HPV types 16 and 18 infections, which together account for about 70% of cases worldwide.

According to (WHO, 2017), the Director-General of the World Health Organization made a call for action towards the elimination of cervical cancer globally. This call to action involves a comprehensive strategy to vaccinate young adolescents and to screen and treat affected adult women if necessary. China, the world's most populous country, has been suffering from the huge threat of cervical cancer, with 98,900 new cases and 30,500 deaths annually, according to the national cancer registry in 2015. Despite this burden, China has not yet adopted a population-based, comprehensive national cervical cancer screening program. Furthermore, human papillomavirus (HPV) vaccine was not approved by the

Chinese National Medical Products Administration (CNMPA) (previously, the China Food and Drug Administration (CFDA)) until the imported bivalent vaccine and quadrivalent vaccine was launched in July 2016 and May 2017, respectively.

In Nigeria, cervical cancer is the third most common cancer and the second most frequent cause of cancer deaths among women aged between 15 and 44 years. In 2020 the latest year for which data is available, the country recorded 14. 550 new cases and 9.659 die every year from cervical cancer. Nigeria introduced the human papillomavirus (HPV) vaccine into its routine immunization system, aiming to reach 7.7 million girls the largest number in a single round of HPV vaccination in the African region in a vaccination drive against the virus that causes nearly all cases of cervical cancer (Akanbi & Opaleye 2015). Girls aged 9 –14 years will receive a single dose of the vaccine, which is highly efficacious in preventing infection with HPV types 16 and 18 that are known to cause at least 70% of cervical cancers and 92% effectiveness to prevent cervical cancers (WHO, 202).

Human papilloma virus known as cervical cancer second most common cancer among women between 20 and 44 years worldwide and about 500,000 new cases and about 274,000 deaths occur annually (Turiho & et al, 2014). In Nigeria, cervical cancer is the third most common cancer and the second most frequent cause of cancer deaths among women aged between 15 and 44 years also recorded about 12,000 new cases and 8000 deaths. There is possibility of adolescent girls mistakenly believing the HPV vaccine to offer protection against all STIs and thus being encouraged to engage in sexual activity and the possibility of jeopardizing the future fertility of vaccinated girls. In some environments, vaccination programs targeting young women have been misunderstood as attempts to control fertility or plots to reduce the population of certain groups (Turiho et al, 2014). In this view the researcher intended to carry out a research about the assessment of of the level of knowledge and acceptance of human papilloma virus (HPV) vaccinatio among government senior secondary school in Funtua metropolis of Katsina State.

Objectives of the Study

1. To access the level of knowledge about human papilloma virus vaccination acquired through school based intervention by the adolescent girls of government senior secondary school in Funtua metropolis of Katsina State.
2. To determine the level of acceptance of human papilloma virus vaccination on government senior secondary school adolescent in Funtua metropolis of Katsina State.

Research Questions

1. What is the level of Knowledge of Human Papilloma Virus Vaccination among Students of Government Girls Secondary Schools in Funtua Metropolis?
2. What is the level of Acceptance of the School based Intervention on Human Papilloma Virus Vaccination among students of Government Girls Secondary Schools of Funtua Metropolis?

Hypotheses

1. Government girls Secondary School students in Funtua Metropolis of Katsina State, do not significantly have Knowledge of Human Papilloma Virus Vaccination.
2. Government girls secondary school students in funtua metropolis do not significantly accept the school based intervention on human papilloma virus.

Scope of the Study

The scope of the study is limited to obtain the asssessment of the level of knowledge and acceptance of human papilloma virus among government senior secondary schools girls in Funtua metropolis of

Katsina State.

Methodology

Descriptive survey statistic by the use of chi square was used to test the hypothesis used at 0.05 level of significant. And demographic information of the respondents was described by the use of frequency and percentage. The research design used in this study was descriptive survey study by describing and interpreting existing differences between the knowledge and acceptance of the dependent variable on the independent variable (Njodi & Bwala, 2003). The total population of the study is 7,390, captured from all the senior female students of G.G.S.S Funtua, 4,090, female senior students of G.D.S.S Funtua 2,092 and also female senior students of G.D.S.S Makera 1,208 (Sourced, zonal education quality assurance office Funtua, as at March, 2024).

The sample employed according to total population determination from the study area which is 7,390 students obtained from the three (3) different government schools which only females students was captured. Therefore, 365 were random selected from the government senior secondary schools in Funtua metropolis of Katsina State (Krejcie & Morgan, 1970).

A self-developed questionnaire was used to collect the data in the area of study. This questionnaire was divided into three sections A, B and C.

Section (A) consist demographic data of the government senior secondary school adolescent girls students in Funtua metropolis of Katsina State.

Section (B) seeks the information about level of knowledge on human papilloma virus among government senior secondary school adolescent girl student in Funtua metropolis, of Katsina State.

Section (C) seeks the information on the level of acceptability of human papilloma virus among government senior secondary schools adolescent girls student in Funtua metropolis, of Katsina State.

The first part of questionnaire is sections (A) or demographic data, and it obtained information's of the respondent as, age, marital status, educational level. The second part is section (B) and it obtained information drawn the level of knowledge of human papilloma virus (HPV) on government senior secondary school students in Funtua metropolis of Katsina State and section (C) obtained information on level of acceptability of human papilloma virus (HPV) on government senior secondary school students in Funtua metropolis of Katsina State.

It was obtained using split half method through a Government Pilot Senior Secondary School (G.P.S.S.S) test in Bakori Local Government Area using 30 respondent, the two half were correlated using spearman ranked order coefficient and an r value of 0.578 was recorded indicating that the instrument is consistent and thus reliable for that collection. To conduct this research, a permission letter was send to the Zonal Education Director Officer and Principals of the selected schools of Funtua Local Government Area, Katsina State. To seek permission to allow the researcher to carry out the study and it's approved, the data was collected and questionnaire distributed to students within the area of the study. Five research assistants were trained, and were used on the distribution and retrieval of the questionnaire.

Inferential statistics of chi-square was used to test all the hypotheses at 0.05 level of significant. Also demographic information of the respondents was analyzed using simple frequency distribution table and percentage.

Results

Demographic information of the respondents

The data obtained from the questionnaire in section A, B and C are shown in Tables below

Table 1: Age of respondents

Age (year)	Frequency	Percentage (%)

14 – 16yrs	143	39.2
17 – 19yrs	122	33.4
20 and above	100	27.4
Total	**365**	**100**

Table 1 showed the demographic information of the respondent and it revealed that 143 (39.2%) of the respondents were between the age of 14 - 16 years old, while 122 (33.4%) of the respondents were between the age of 17 – 19 years old and 100 (27.4%) of the respondents are between the age of 20years and above. This means that majority of the respondents are between age of 14 - 1 years. Moreover, the table shows that 278 (76.2%) of the respondents were single, 78(21.3%) are married, 9 (2.5%) respondents are divorced. This means that majority of the respondents are single.

Table 2: Distribution of Respondents by Marital Status

Marital Status	Frequency	Percentage (%)
Single	278	76.2
Married	78	21.3
Divorced	9	2.5
Total	**365**	**100**

The Table 2: shown the marital status of the respondents, single are 278 (76.2%), married are 78 represent (21.3 %) and divorced were 9 represent (2.5%). This indicate that the majority of the respondents were single while the minority of the respondents were divorced.

Table 3: Distribution of Respondents by Class Level

Class Level	Frequency	Percentage (%)
SS 1 Class	118	32.3
SS 2 Class	125	34.3
SS 3 Class	122	33.4
Total	**365**	**100**

Table 3 shown the response from the class shown that 118 (32.3%) of the respondents were S.S.1 Students and also 125 (34.3%) are the S.S.2 Students and 122 (33.4%) were the S.S.3 Students. This means that majority of the respondents are from S.S.2 and S.S.3 respectively.

Table 4: Distribution of Respondents by Tribe/Ethnicity

Tribe/Ethnicity	Frequency	Percentage (%)
Hausa	232	63.3
Yoruba	97	26.6
Igbo	26	7.1
Other Tribes	10	2.7
Total	**365**	**100**

The Table 4 also showed that the tribes and ethnicity Hausa were 232 (32.3%) while, 97 (26.6%) of the respondents are Yoruba, 26 (7.1%) of the respondents were Igbo, 10 (2.7%) of the respondents belong to other tribes. This means that Ymajority of the respondents were Hausa by tribe.

Testing Hypotheses

Hypothesis One: Government girls Secondary School students in Funtua Metropolis of Katsina State, do not significantly have Knowledge of Human Papilloma Virus Vaccination.

Table 5: Chi-square Summary of Government Secondary School Girls knowledge about human papilloma virus

Variables	FO	FE	χ^2	D f	P-valye
Proper Knowledge	77 (21%)	182.5			
			128.198	1	.000
Improper Knowledge	288 (79%)	182.5			
Total	**365**				

T-V = 0.05 Significant Level

Result in Table; 5 Showed that, 77 (21%) of the respondents have proper knowledge about human papilloma virus in Funtua Local Government Area Katsina State, and 288 (79%) of the respondents have improper knowledge about human papilloma virus vaccination against cervical cancer in Funtua Local Government Area Katsina State. This means that majority of the respondents have improper knowledge on human papilloma virus vaccination against cervical cancer. The table also shows that, T <0.05 than P value = .000. Therefore, the null hypothesis (Ho1) is accepted. This means that there is no significant proper knowledge of human papilloma virus vaccination among government girls senior secondary school in Funtua Local Government Area Katsina State.

Hypothesis Two: Government girls secondary school students in funtua metropolis do not significantly accept the school based intervention on human papilloma virus.

Table 6: Chi-square Summary of Government Girls Secondary School students on School-based acceptance of human papilloma virus.

Variables	FO	FE	χ^2	D f	P-valye
Proper Acceptability	77 (22.3%)	182.5			
			128.198	1	.000
Improper Acceptability	288(83.7%)	182.5			
Total	**365**				

TV = 0.05 is Significant

Result of Table 3 showed that, 77 (22.3%) of the respondents have proper acceptability about human papilloma virus vaccination against cervical in Funtua L.G.A. Katsina State and 288 (83.7%) of the respondents have improper acceptability about human papilloma virus vaccination against cervical in Funtua L.G.A. Katsina State. This means that majority of the respondents have improper acceptability about human papilloma virus vaccination against cervical in Funtua L.G.A. Katsina State. The table also shows that, T <0.05 than P / value of = .000. Therefore, the null hypothesis (Ho2) is accepted. This means that there is no significant acceptability about human papilloma virus vaccination against cervical in Funtua L.G.A. Katsina State.

Discussion

The Study Investigated the Assessment of Level of Knowledge and Acceptance of Human Papilloma Virus among Government Girls Secondary Schools in Funtua metropolis of Katsina State. The finding revealed that, there is no significant proper knowledge acceptability and promotion towards assessment of knowledge and acceptance of human papilloma virus in Funtua metropolis Katsina State.

(See table 2). The finding is in line with the study that shows students' knowledge and acceptance towards HPV virus vaccination varies. Some were of the opinion that if they feel at risk of getting HPV, they will take the vaccine. Most of the respondents in this study had not received HPV vaccine before the study took place but were willing to accept HPV Vaccination. Similar studies have also reported low uptake of HPV vaccination (Juntasopeepun & et al, 2012).

The findings revealed that there is no significant proper knowledge and acceptability of human papilloma virus among adolescent girls of government senior secondary school in Funtua metropolis of Katsina State (see table 3). The finding is in line with, (Centre for Diseases Control. "CDC" 2013). The study show me the science of when, where and how to acquire knowledge and acceptability of human papilloma virus among adolescent girls of government senior secondary school in Funtua metropolis of Katsina State. The study stated that human papilloma virus is part of antenatal challenges use in increasing the rate of mortality and morbidity among girls of 9- 15 years is significantly important and more efficient in increasing the transmission of microbes that are causing cervical cancer and sexually transmitted diseases (STD)s (CDC, 2013).

The finding by Lopez & et al., (2020) adolescent's age at first sexual intercourse, age of respondent parents, and religion were also identified in several publications as being related with HPV knowledge, although results are discrepant. Additionally, being vaccinated against HPV or having a vaccinated older sister were also positively associated with levels of HPV knowledge.

Related study stated that up to 80 factors presented a statistically significant association with HPV vaccine acceptance in at least one of the studies included in this systematic review: 21 were socio demographic or family characteristics, 37 factors were drivers, and 22 were barriers to vaccine acceptance. Within demographic factors, female gender and younger age of respondent parent, female gender of the adolescent, higher household income, and previous childhood vaccinations are the ones most consistently associated with HPV vaccine acceptance (Lopez & et al., 2020).

The study on Assessment of cervical cancer across stakeholder groups, parents exhibited the most hesitancy towards the HPV-Plus program, which was primarily attributed to the lack of accurate knowledge about the program. Based on their beliefs, it was not uncommon for some parents to forbid their children from getting vaccinated. Lack of awareness and engagement throughout the program implementation process was a prominent complaint among parent (Global Public Health, GPH. 2023).

Recommendations

1. Proper health education services engagement should be emphasized by the government, stakeholder and the individual community members.
2. Awareness, advocacy to traditional and religious leader is very important to tackle the parental poor concern about infectious diseases transmission.
3. Pass-way information to parents and adolescent age groups influence and brainwashing the general public with misleading information's with regard to false scientific researches and information's on the vaccines effectiveness.

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