

ASSESSMENT OF KNOWLEDGE, ATTITUDE, AND PERCEPTION OF HUMAN PAPILLOMAVIRUS VACCINATION AMONG PARENTS OF YOUNG GIRLS (AGED 8 – 12) IN MBARARA CITY; A CROSS-SECTIONAL STUDY.

Bright Twikirize^{a*}, Rebecca Kalibwan^b, Jordan Amanyire^a

^aBishop Stuart University, Mbarara, Department of Public Health and Biomedical Sciences

^bBishop Stuart University, Mbarara, Department of Agriculture and Agribusiness

ABSTRACT:

Introduction:

To reduce the cervical cancer burden, many governments have emphasized the Human papillomavirus (HPV) vaccine as an important prevention strategy. Despite its effectiveness in preventing human papillomavirus (HPV) infection and free HPV immunization programs, vaccine acceptance is not guaranteed as some cultures are still against it due to various reasons. This study was conducted to assess the knowledge, attitude, and perception of human papillomavirus vaccination (HPV) among parents of young girls (aged 8 – 12) in Mbarara City.

Methodology:

The study was cross-sectional employing both qualitative and quantitative approaches for data collection and analysis. Information was collected from a sample of 288 respondents and 12 key informants using questionnaires and interviews. Data was analyzed using Microsoft Excel and STATA Version 18.0

Results:

The study discovered that the level of Knowledge on HPV vaccination among parents of young girls was relatively low (41.3%) despite most respondents revealing to have heard about HPV and its associated infections like cervical cancer and genital warts. The study also found out that a large portion of community members (62.1%) still had negative attitudes towards the vaccine which has negatively affected their perceptions. Negative attitudes and perceptions equally played a big role towards vaccination leading to low vaccine acceptability in the area. The study further discovered a wide knowledge gap about HPV infection and HPV vaccine uptake (42%) and this has to be addressed.

Conclusion:

In conclusion, the study confirmed that knowledge about human papillomavirus vaccination (HPV) was low and attitude and perception of human papillomavirus vaccination (HPV) was poor among parents of young girls (aged 8 – 12).

Recommendations:

Tailored community-based interventions and sensitization programs are a viable means to achieve this for multiple reasons. There is a need for specific training for healthcare workers who are the first contact point for patients.

Keywords: Knowledge, Attitude, Perception, Human Papilloma Vaccine, Parents, Young Girls.

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Corresponding Author: *Bright Twikirize

Email: twikirizebright16@gmail.com

Bishop Stuart University, Mbarara, Department of Public Health and Biomedical Sciences

INTRODUCTION.

Human Papilloma Virus (HPV) is a virus that is generally spread through skin-to-skin contact that occurs during sexual intercourse (Gavillon et al., n.d.,2010) However, in some cases, non-penetrative sexual contact can also lead to HPV infections. There are over 30 strains of HPV that exist and infect the genital area. HPV infection poses a significant

public health concern. Human papillomavirus (HPV) is commonly associated with sexually transmitted diseases (STDs) and is regarded as one of the major causes of global disease burdens. There are 13 types of oncogenic HPV; types 16 and 18 are the most important causes of cervical cancer and the non-oncogenic types of HPV 6 and 11 are identified as the major causes of 90% of genital warts (Boakye et al., n.d.)

Globally, human papillomavirus (HPV) is recognized as a sexually transmitted infection and is conclusively linked to cervical cancer and genital warts (Blasi et al., n.d., 2015) Multi-parity, early sexual debut and infection with other sexually transmitted infections (STIs) are known to be risk factors for HPV and CC. HPV infection is so common that it is suggested that 20 % of sexually active adolescent girls are infected by the age of 18. As 70 % of infections clear within a year, however, only a small proportion of women who develop a persistent infection from high-risk genotypes go on to develop cancer. Cervical cancer ranks second in the most common female cancers globally and is the main cause of female cancer mortality worldwide, especially in Sub-Saharan Africa (Fu et al., n.d., 2017)

Worldwide, 15% of all cancer cases and nearly 26% of cancer cases in developing countries are attributable to infectious agents, particularly viruses (VanWormer et al., 2017) Cervical cancer, which is caused by the human papillomavirus (HPV), is the leading cause of cancer mortality among women in sub-Saharan Africa (SSA). The approval and recommendation of two vaccines i.e. Gardasil and Cervarix provide a huge opportunity to curb the burden of cervical cancer. As one of the key strategies in preventing cervical cancer in developed countries, providing HPV vaccines in low and middle-income countries has been a critical pillar for meeting the global action plan for closing the cancer divide (Radisic et al., n.d., 2017) However, outstanding barriers to achieving this goal in low-income countries remain. These include the high cost of vaccine and vaccine delivery, low cervical cancer screening levels, poor health system capabilities, inaccessibility to medical care, low awareness and knowledge of HPV and cervical cancer, and failure of cervical cancer to be recognized as a major health concern (Petrosky et al., n.d., 2015)

In Africa, studies have indicated that parents have limited knowledge about HPV and cervical cancer (Francis et al., n.d., 2011) It is argued that limited knowledge, awareness, and negative perceptions have invariably affected HPV vaccine acceptability causing low vaccine uptake and refusal. Due to various factors, parents across Africa have poorer uptake of childhood immunizations, falling behind their Asian and white counterparts. In sub-Saharan Africa for instance, cervical cancer is perceived as a disease of disparities. Factors such as race, ethnicity, culture, attitudes, beliefs, and religion play an important role in the understanding of HPV, cervical cancer awareness, HPV vaccine, and vaccine acceptability.

Uganda was among the first East African countries to take advantage of the low vaccine pricing through a partnership with different pharmaceutical manufacturers, achieving high coverage of HPV vaccination of all adolescent girls in 2011 (Galagan et al., n.d., 2013) Through different sources of subsidized HPV vaccines, 88.9% of girls were fully vaccinated in Uganda using a school-based pilot program supported by PATH International in 2014 (Wani et al., n.d., 2013) To continuously reduce the national cervical cancer burden, government established the national HPV

vaccination program. The government has continuously given out HPV vaccine free of charge to female adolescents, with the target age group of 8-12 years old (Mwaka et al., n.d., 2013) Despite the free HPV immunization, acceptance of the vaccination program is not guaranteed as some of the parents are still against it due to various reasons. Knowledge and attitude have been shown as important determinants for future vaccine acceptance. It has been shown that knowledge of the consequences of HPV infection is lacking and many have misconceptions about vaccination.

General objective.

- *To examine knowledge, attitude, and perception of HPV vaccination among parents of young girls to inform the level of uptake of HPV towards cervical cancer prevention and control*

Specific objectives.

- *To explore perceptions towards HPV vaccination in Mbarara City*
- *To assess the level of knowledge on HPV vaccination among parents of young girls*
- *To determine the level of uptake of HPV vaccination amongst young adolescents in Mbarara City*

METHODOLOGY.

Study design

The study was cross-sectional employing both qualitative and quantitative methods to capture data from respondents. The design was chosen because it helped the researcher to generate basic knowledge, clarify relevant issues, and break ground about the knowledge, attitude, and perception of HPV vaccination among parents of young girls. The qualitative methods were used to capture respondents' views, feelings, knowledge, and opinions on the knowledge, attitudes, and perception of human papilloma vaccination (HPV) among parents of young girls (aged 8 – 12).

Study Area.

The study was carried out in Mbarara City, western Uganda. Mbarara City is a city in the Western Region of Uganda and the second largest city in Uganda after Kampala. The city is divided into 6 divisions which include the Kakoba Division, Kamukuzi Division, Nyamitanga Division, Biharwe Division, Kakiika Division, and Nyakayojo Division. The interest in the City was developed after realizing increasing cases of cervical cancer and yet HPV vaccination has been promoted in the area. In selecting respondents, parents of young girls aged 8 – 12 and the caretakers were considered the focal people.

Study population.

The study population included 288 parents of young girls aged 8 – 12; parents were selected since they can provide information regarding girls 8-12 years and influence the uptake of Human Papilloma Virus Vaccination acceptance by girls aged 8-12 years. I selected 12 key informants including Nurses who were involved in Vaccination, the Village Health Team, and Division leaders. These were considered to provide supplementary information that was not provided by the parents.

Inclusion and exclusion criteria

Participants eligible to participate in the study were parents/caretakers who had young girls aged 8 – 12 years. Parents with girls less than 8 years old and more than 12 years old were excluded from participating in the study. Non-VHTs, non-health workers, and nondivision leaders were excluded from participating in the study. Only those who provided consent were eligible to participate.

Sample determination and size

The study sample was determined using a proportional sampling formula at 95% level of confidence, with 5% as the tolerable error. In this case, the study considered 25% of the total population. Therefore, the sample was determined as follows;

$$n = p \times q \times \left(\frac{Z_{\alpha/2}}{e}\right)^2 \text{ or}$$

$$n = Z_{\alpha/2}^2 \times \frac{p \times (1-p)}{e^2}$$

Where:

n = Sample size

p = Target population = 25% = 0.25

q = non- target population = 75% = 0.75

e = Standard error = 5% = 0.05

$Z_{\alpha/2}$ = Z value of 95% confidence level = 1.96 from the Z-table

Substituting the values into the formula: $n = 0.25 \times 0.75 \times \frac{(1.96)^2}{0.0025} = 288$ respondents

This together with 12 key informants totaled 300 as a final sample size

Sampling strategy.

The study adopted multistage sampling techniques. The first stage involved a purposive selection of four (4) divisions from the six divisions in the City. Each division had an estimated number of eight (8) cells. The second stage involved a purposive selection of three (3) wards from each of the four divisions to make a total of 12 target wards. In the third stage, the research further applied purposive selection to come up with four cells from each of the twelve (12) selected wards to make a total of forty-eight (48) cells. It was from the 48 selected cells that the researcher purposively selected six respondents (6 parents) from each cell. The fourth stage involved a purposive selection of key informants including VHTs, health workers, and cell leaders. I selected participants from the Kakoba division, Nyakayojo division, Kakiika Division, and Biharwe division

Data sources.

The study sourced information from both primary and secondary sources. Secondary information was collected from different sources like the Internet and journals.

Data collection methods:

The study used interviewer-administered questionnaires with (closed and open-ended questions) to collect quantitative data, and an interview guide to collect qualitative data.

Questionnaires.

An interviewer-administered questionnaire with both (closed and open-ended questions) was designed in English and later translated into the local language (Runyankole) since most of the respondents understood Runyankole.

Interview guide.

Interviews were conducted using an interview schedule that was administered to key informants. This involved oral or vocal questioning where the researcher became the interviewer and the respondents were interviewees. The interview schedule constituted open-ended questions.

Quality Control Methods.

Validity of Instruments.

To ensure the validity of the instruments, various copies of the instruments were given to Research Supervisors for further analysis to point out areas in which the instrument was deficient, and based on their expert opinion various changes were made to the instruments to increase their validity.

software were analyzed to determine the level of awareness using frequency counts and percentages.

Reliability of Instruments.

The reliability of the instruments was tested by use of the test-re-test method. The questionnaires were administered to 2 respondents from each group selected. The same questionnaires were administered after a week to the same group. The answered questionnaires were scored manually again and a comparison of the results was made. Pearson's correlation coefficient was computed to establish the extent of reliability.

Data analysis.

Qualitative data analysis.

Qualitative data was analyzed by content analysis after transcribing and developing themes. I used content analysis to quantify and analyze the presence, meanings, and relationships of certain words, themes, or concepts. Respondents' views were quoted verbatim to give their actual feelings about the issues being raised. The above methods of data analysis ensured proper and efficient computation of collected data and produced standard work.

Quantitative data analysis.

Information obtained from the structured questionnaires was corroborated during data analysis. Data was captured in Microsoft EXCEL version 16.0 and then exported to STATA Version 18.0 to generate descriptive and inferential statistics. Techniques for summarizing data for continuous variables were used such as mean, variance, and standard deviation while frequencies and percentages were generated for categorical variables.

Analysis per objective.

Objective One:

Objective one was to find out the level of knowledge on HPV vaccination among parents of young adolescents. Descriptive statistics with the aid of STATA computer

Objective two:

Objective two was to explore the perception of HPV vaccination. Descriptive statistics (such as mean, variance, and standard deviation) were performed using STATA version 18 and presented in a table. Thematic analysis was also performed to capture the association between the attitudes and perceptions generated by key informants.

Objective three.

Objective three was to determine the level of uptake of HPV vaccination among young adolescents in Mbarara City. This objective was achieved using descriptive statistics. The outcome of the analysis was presented in the form of frequency and percentages.

Ethical considerations.

Ethical approval was obtained from the Research and Ethics Committee at Bishop Stuart University. Permission was also sought from Mbarara City authorities before the commencement of the study. Participation in the study was voluntary, and written informed consent was obtained from each participant at the time of the study after explaining to them the objectives of the study and how the findings would benefit them.

STUDY RESULTS.

Socio-economic characteristics of respondents.

This sub-section presents the socio-demographic features of 288 respondents sampled. The key demographic characteristics captured for the study included; gender, age, education level, religion, marital status, and occupation. These features were found to be of great help in clearly depicting the diverse backgrounds of the respondents.

Table 1: Socio-economic characteristics of parents of young girls aged 8-12 years

Variable	Category	Frequency (n=288)	Percentage
Age bracket	25-35	115	39.9
	36-50	153	53.1
	50 and above	20	6.9
Sex	Males	122	42.4
	females	166	57.6
Education level	None	26	9
	Primary	60	20.8
	Secondary	140	48.6
	Tertiary	62	21.5
Source of income	Farming	87	30.2
	Employed	64	22.2
	Business	137	47.6
Marital status of the parents	Married	160	55.6
	Single	41	14.2
	Separated	34	11.8
	Widow	38	13.2
	Widower	15	5.2
Religious Affiliation	Anglicans	134	46.5
	Catholics	105	36.5
	Moslems	49	17

As shown in Table 1 majority 53.1% of the respondents were aged 36-50 years, 39.9% were aged 25-35 years, and 6.9 were aged 50 and above. The majority 57.6% were female parents, 42.4% were male parents. In terms of educational level, the majority of the parents 48.6% had secondary education, 21.5% had tertiary education, 20.8% were primary whereas 9% had never attended school. The majority (47.6%) of parents depended on Business as a source of income, 30.2% depended on farming, and 22.6% on formal employment. The majority (55.6%) of parents were still married, 14.2% were single, 11.8% were separated, 13.2% were widows and 5.2% of parents were widowers. In terms of Religion, the majority 46.5% of the

participants were Anglicans, 36.5% were Catholics and 17% were Muslims.

Level of knowledge on HPV vaccination among parents of young girls.

This section of the study addresses research question one which sought to find out the level of knowledge on HPV vaccination among parents of young girls. The gathered information was analyzed using both qualitative approaches to generate frequencies and percentages as presented in Tables 2 and 3.

Table 2: Knowledge of HPV infection and vaccination among parents of young girls

Variable	Values	Frequency	Percentage
Have you heard about HPV infection	Yes	184	63.9
	No	104	36.11
Risk factors for HPV Infection	Unprotected sex with partners	82	44.6
	Multiple sexual partners	38	20.7
	Sexual intercourse at an early age	30	16.3
HPV Related Diseases	Cervical cancer	70	38.0
	Penile cancer	43	23.4
	Genital warts	25	13.6
	Oropharyngeal cancer	22	11.9
	Anal cancer	24	13.4
Preventive measures for HPV infection	Condom use in sexual intercourse	78	42.4
	Vaccination	45	24.5
	Late start of complete sexual activity	28	15.2
	Late start of incomplete sexual activity	33	17.9

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As shown in Table 2 above, more than half (63.9%) reported that they had heard about HPV infection compared to the 36.1% who had not heard. Of those who knew about HPV infections (184), 44.6% reported that the infection was caused by having unprotected sex with multiple partners, 20.7% had multiple sexual partners whereas 16.3% talked of sexual intercourse at an early age and high frequency of sex partner exchange respectively. 38.0% revealed that HPV

Infection resulted in cervical cancer, 13.6% genital warts, and 13.4% anal cancer while 23.4% and 11.9% revealed that infection results in penile cancer and oropharyngeal cancer respectively. 42.4% revealed that the infection could be prevented by the use of a condom during sexual intercourse, 24.5% by vaccination, 17.9% by the late start of incomplete sexual activity, and 15.2% by the late start of complete sexual activity.

Table 3: Knowledge of HPV vaccine and vaccination among parents of young girls

Variable	Values	Frequency	Percentage
Knowledge of HPV vaccine	Yes	119	41.3
	No	169	58.6
Vaccines known	4-valent HPV vaccine	26	21.8
	9-valent HPV vaccine	54	45.4
	2-valent HPV vaccine (cervarix)	39	32.8
The knowledge that the HPV vaccine can prevent cervical cancer	Yes	55	46.2
	No	64	53.8
Source of information	Nurses	66	55.5
	Physicians	10	8.4
	VHTs	43	36.1

According to the results in table 3 above, only 41.3% of the respondents knew the HPV vaccine compared to 58.6% who didn't know the HPV vaccine. Of those who knew about the HPV vaccine, the majority (45.4%) knew about the 9-valent HPV vaccine, 21.8% 4-valent HPV vaccine (Cervarix), and 32.8% 2-valent HPV vaccine. 46.2% of the respondents

knew the HPV vaccine's role in preventing cervical and other HPV-related infections whereas 53.8% did not. Most respondents (55.5%) of the respondents got HPV vaccine-related information from Nurses, 36.1% from VHTs, and 8.4% got information from physicians.

Attitude and perception towards HPV vaccination in Mbarara City.

This section of the study addresses research question two which sought to assess the attitude and perception of parents of young girls towards HPV vaccination in Mbarara city. The gathered information was analyzed using both qualitative and quantitative approaches as below;

Table 4: Attitude and perception towards HPV vaccination.

Variable	Values	Frequency (119)	Percentage
Attitudes regarding the HPV vaccine	Effective in preventing cervical cancer	60	50.4
	Effective in preventing penile cancer	22	18.5
	Effective in preventing oral cancer	16	13.4
	Effective in preventing the spread of HPV to other partners	21	17.6
The general attitude towards HPV vaccination	Positive	45	37.8
	Negative	74	62.1
Perceptions towards HPV vaccine	It is safe and effective	17	14.3
	It has side effects	34	28.6
	It increases the risk of getting HPV	16	13.4
	HPV vaccine protects against cancers	20	16.8
	It is only useful for women	18	15.1
	It causes swelling of the arm	14	11.8
The general perception towards HPV vaccination	Positive	40	33.6
	Negative	79	66.4

I assessed the attitude and perception of only 119 parents since they were the ones who knew about the HPV vaccine. Results on respondent's attitudes towards the HPV vaccine were presented in table 4, most (50.4%) respondents reported that the vaccine was effective in preventing cervical cancer, 13.4% effective in preventing oral cancer, 18.5% revealed that it was effective in preventing penile cancer whereas 17.6% reported that it was effective in preventing the spread HPV to other partners. In general, 37.8% had a positive attitude compared to 62.1% who had a negative attitude towards the vaccine. 28.6% perceived the vaccine to have side effects, 16.8% said it protects against cancers, 14.3% reported that it is safe and effective, 15.1% perceived the vaccine to be only for women whereas 11.8% and 13.4% reported that it caused the arm to swell as well as increased the risk of getting HPV respectively. The general perception towards vaccines was negative at 66.4% compared to 33.6% positive. In an interview with one of the parents;

".....some parents reported that their daughters complained that their arms got swollen because of the HPV injections but it did not stay long. We thought it was just like other injections where the pain would later disappear"

Level of uptake of HPV vaccination amongst young adolescents in Mbarara City

This section of the study addresses research question three which sought to determine the level of uptake of HPV vaccination amongst young girls in Mbarara City. The gathered information was analyzed through a qualitative approach to generate frequency counts and percentages as below;

Table 5: Level of uptake of HPV vaccination amongst young girls

Variable	Values	Frequency (200)	Percentage
Is your daughter(s) vaccinated against HPV	Yes	84	42
	No	116	58

As shown in table 4 above, parents reported that 58% of the girls were not vaccinated against HPV and 42% had been vaccinated

"..... there are some (parents) who could come and ask us about it, and we would explain to them why the

vaccine is given, and then after explanation, they would accept that their children be given the vaccine.'
In another interview with one of the parents;
"..... Most of us encourage our daughters to be vaccinated... We normally tell our girls to get vaccinated because no one has seen any adverse side effects of the vaccine"

DISCUSSION.

Level of knowledge on HPV vaccination among parents of young girls

In this study, the level of awareness of HPV vaccination among parents of young girls was assessed. A bigger number (63.9%) of the respondents reported having heard about HPV infection revealing that it was caused by aspects like having unprotected sex with multiple partners and having sexual intercourse at an early age. It was reported that HPV Infection resulted in cervical cancer, genital warts, and several other infections like penile and oropharyngeal cancers respectively. However, HPV was being confused with other sexually transmitted infections, such as the human immunodeficiency virus (HIV) and herpes simplex virus.

The study determined the level of Knowledge on HPV vaccination among parents of young girls in Mbarara City. Although knowledge of HPV infection was relatively high in some areas, the proportion of respondents who had heard of the HPV vaccine was as low as 41.3%. Most parents didn't know about the vaccine. This finding is comparable with (Ezenwa et al., 2013) who revealed that there is a high level of awareness of cervical cancer but little knowledge of its link to HPV. Poor awareness of HPV vaccination was attributed to a general lack of knowledge about HPV among the respondents. This is in agreement with the research that was done among parents of young girls in Mysore, India that found low levels of knowledge among parents. (Madhivanan et al., n.d., 2009)

Less than half of their participants knew about the HPV vaccination even though it had been accepted and promoted in the area for a good number of years. This could be a result of insufficient information about HPV infection and vaccination among young girls. Therefore, greater efforts in health education are needed to improve the knowledge. This could be achieved through campaigns, mass media, school visits, and community outreaches. This study finding is comparable to findings by (Itty et al., n.d., 2014) that revealed that the average level of knowledge of the HPV vaccine is still extremely low in most developing nations.

Attitude and perception towards HPV vaccination

According to the study results, the HPV vaccine was reported to effectively prevent different cancers (including, oral, and penile) as well as prevent the spread of HPV to other partners. Although HPV vaccination was widely understood to prevent cervical cancer (and not necessarily HPV), a big number (62.1%) of the respondents generally had a negative attitude towards the vaccine citing its associated side effects. This is in agreement with the study done among parents that found poor attitudes of parents towards HPV vaccination. (Chan et al., 2012) Attitude towards vaccinations in general was largely based on perceived side effects and the ability to prevent HPV diseases, which somehow contributed to low HPV vaccine acceptability. This study also found that a few community members, who generally supported HPV vaccination, supported the idea based on the perception that it may prevent HPV and related conditions. The contribution of positive attitudes about vaccination in general and of perceived severity of cervical cancer towards HPV vaccine acceptability have been previously reported (Blasi et al., n.d., 2015) These findings suggest that effective promotion of vaccination against HPV ought to make clear reference to the success profile of other vaccinations. They also underscore the need to provide as much information as possible about the nature of cervical cancer targeting especially the adolescents who appear to be less concerned about the severity of cervical cancer in our study to enhance the acceptability of HPV vaccination.

Although HPV vaccination was widely perceived as a prevention strategy against cervical cancer, some parents were uncertain about the long-term protection of the vaccination citing that it had side effects, caused swellings as well as increased the risk of getting HPV. This concern has been cited in other studies (Petrosky et al., n.d., 2015) yet all available evidence shows that the HPV vaccinations do prevent cervical cancer and doesn't create any side effect ((VanWormer et al., 2017) The concern underscores the need for future vaccination programs to incorporate messages emphasizing the ability of HPV vaccination to provide long-term protection based on proven long-term effectiveness of other vaccines. Some parents in this study also questioned the usefulness of vaccinating girls who are already sexually active and pointed out that some eligible girls missed vaccination for that reason. Sections of the community also variously misunderstood the protection provided by HPV vaccination. Some perceived the vaccination to offer other protections including prevention against pregnancy and uterine cancer as well as protection from other virus infections such as HIV and the influenza virus. HPV was often mistaken for other sexually transmitted viruses such as the HIV and herpes simplex virus.

Level of uptake of HPV vaccination amongst young adolescents.

The uptake of HPV vaccination was low (42%) as only a few girls had received it due to a lack of knowledge about it.

A few girls who had received the vaccine were individuals whose parents had good knowledge about the infection and vaccine. Therefore one can infer that good knowledge translated to increased uptake and vice versa. The low vaccine uptake among young girls was partly because the vaccine was introduced and awareness was not yet optimal as evidenced by poor knowledge. This was in agreement with the findings of (Dempsey et al., n.d., 2009) which revealed that most parents refused their daughters from being vaccinated due to low knowledge about the vaccine. The observed knowledge gap in the study was a setback to HPV vaccination programs. More reasons for low vaccine acceptability were cited including, girls being too young and not sexually active; girls not being at risk of HPV infections fear of side effects fear of the unknown, and controversies surrounding the vaccine. This study finding is comparable to findings by (Galagan et al., n.d., 2013) which stated that despite the effectiveness of the HPV vaccine in preventing human papillomavirus (HPV) infection, acceptance of the vaccination is not guaranteed as some of the parents are still against it due to various reasons. Knowledge and attitude are important determinants for future vaccine acceptance.

LIMITATIONS OF THE STUDY.

Since the research topic was about sensitive issues surrounding the Vaccination status of young girls, some respondents concealed factual information concerning related issues, a factor that tended to compromise the quality of the findings.

CONCLUSION.

In conclusion, the study confirmed the level of awareness on HPV vaccination among parents of young adolescents to be low despite most respondents revealing to have heard about HPV and its associated infections like cervical cancer and genital warts. A fraction of community members still have poor attitudes towards the vaccine which has negatively affected their perceptions. Negative attitudes and perceptions have equally played a big role towards vaccination leading to low vaccine acceptability in the area. A wide knowledge gap still exists about HPV infection and uptake of HPV vaccination and this has to be addressed. There is a need for more intense educational intervention as regards HPV infection and vaccination as well as its relation to cervical cancer to improve knowledge which will, in turn, improve uptake and successful implementation of HPV vaccination programs in the area.

RECOMMENDATIONS.

Engaging all key stakeholders through improved and increased education will elevate public trust, which is a critical component of the successful implementation of widespread vaccine coverage.

There is a need to engage health care providers including Doctors, nurses, and public health specialists in community sensitization on the benefits of the vaccination Tailored community-based interventions and sensitization programs are a viable means to achieve this for multiple reasons.

There is a need for specific training for healthcare workers who are the first contact point for patients and this will provide them with accurate knowledge and information on cervical cancer and the HPV vaccine

Community representatives should be involved in designing a message that serves the needs of the study population. The use of celebrities in health messages may also be beneficial, especially for male celebrities.

AREAS FOR FURTHER RESEARCH.

Findings from this study indicate that since uptake was low among the respondents, HPV vaccination to their clients will be unlikely and this may be attributed to the poor knowledge observed in this study. Further study is recommended to identify other factors influencing uptake. This low uptake of HPV vaccination predisposes girls to HPV infection which can otherwise be prevented by vaccination but young girls that are already sexually active are not eligible for the HPV vaccine due to pre- HPV exposure. This could in the long term lead to an increased prevalence of HPV infection and its consequences.

Future studies may explore the effects of knowledge levels, sexual activity, and having more sexual partners on vaccine acceptability.

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CONFLICT OF INTEREST.

There was no conflict of interest from the start to the end of the study

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LIST OF ABBREVIATIONS.

CC: Cervical Cancer
CDCP: Certified Data Center Professional
DV: Dependent Variable

Elsevier. Retrieved October 2, 2023, from <https://www.sciencedirect.com/science/article/pii/S1047279709000830>

FDA: Food and Drug Administration
HBM: Health Belief Model
HPV: Human Papilloma Virus
IVs: Independent Variables
KAP: Knowledge Attitude and Perception
LICs: Low-Income Countries
MOH: Ministry of Health
NGOs: Non- Governmental Organizations
PATH: International Professional Association of Therapeutic Horsemanship International
SSA: Sub-Saharan Africa
STDs: Sexually Transmitted Diseases
WHO: World Health Organization

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