SCHOOL OF MEDICINE AND HEALTH SCIENCES

KNOWLEDGE ATTITUDES AND PRACTICES OF HUMAN PAPILLOMAVIRUS VACCINATION AMONG ADOLESCENTS GIRLS AT CHIWEMPALA CLINIC, CHINGOLA DISTRICT

BY

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A dissertation submitted to the University of Lusaka in partial fulfillment of the requirements of a Bachelor of Science in Public Health

DECLARATION

Name of student and ID: Hellen Mbelenje BSPH19217643

I declare that this proposal is my creative work and to the best of my acquaintance has not been presented for a degree in any other institution.

Signature: **Date:** __**26th May, 2023**__

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This dissertation has been submitted with my approval as a University of Lusaka (UNILUS) supervisor.

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Signature: **Date: 26th May, 2023**

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DEDICATION

I wish to dedicate this work to my mother Enedy Lungu whose endless prayers, sacrifices and hard work have helped to reach this far academically. I further dedicate this work to my late father Henry Mbelenje who always pushed and encouraged me to do my best in life. I would also like to dedicate this work to my sisters Joyce and Esther my cheer leaders and inspiration. Finally I dedicate this work to my friends Christopher Chitalu, Natasha Monta and Louisa Mwansa thank you for the love and support.

LIST OF ACRONYMS

CCPPZ……………………………………..Cervical Cancer Preventive Program in Zambia

G8……………………………………….Grade Eight

HPV……………………………………..Human Papillomavirus

KAP……………………………………..Knowledge Attitude and Practices

MOE…………………………………….Ministry of Education

MOH…………………………………….Ministry of Health

WHO……………………………………World Health Organization

LIST OF FIGURES

ABSTRACT

Background: Human papillomavirus is a common STI, it is a lead cause of cervical cancer in women internationally. Human Papillomavirus vaccines protect against infection caused by human papillomaviruses (HPV). Clinical trials have shown that HPV vaccines are highly effective in preventing cervical infection. The vaccines are given before first exposure to the virus, which is before individuals begin to engage in sexual activity. HPV vaccines have also been found to reduce infections in other tissues that HPV infects, including the anus and oral region (Chaturvedi AK, 2018). Trials and real-world data from population-based studies have now demonstrated that the vaccines greatly reduce the risk of pre-cancers and cancers of the cervix, vagina, and vulva in vaccinated women (Chaturvedi AK, 2018).

In 2018, Zambia had the third highest incidence of cervical cancer in the world with 66.4 new cases per 100 000 women, despite having established the Cervical Cancer Prevention Program in Zambia (CCPPZ) in 2006 (Anayawa Nyambe, 2021). Therefore, it is with no doubt that the issue of HPV vaccination is important in the fight against cervical cancer. Therefore, there is need for the issue to be tackled seriously. Although the Government has taken some measures to stem the uptake of HPV Vaccination, information that is available does not cover the status of the uptake in Chiwempala on the Copperbelt. This means little is known about HPV vaccination in Chingola's Chiwempala compound. There is a need to understand the knowledge, attitudes and practices they have on HPV vaccination.

Objective: The aim of this study was to analyse the knowledge, attitudes and practices of adolescent girls at Chiwempala clinic regarding HPV vaccination.

Methods: the study was qualitative, it used phenomenology study design which looks to gather information that explains how individuals experience a phenomenon and how they feel about it. The study site was Chiwempala clinic, convenience sampling was used to recruit participants in the study and a semi structured interview guide as a data collection tool.

Results: The findings are under the following sub-headings; individual, interpersonal and service factors. A total number of 15 girls were involved in the study of which 70% were 14years old and 30% were 15 years old. 70% of the participants had no knowledge about HPV vaccination. Participants who had bad experience with vaccines had negative attitude toward HPV vaccination because of their past experience and concerns of about the safety, nevertheless, majority of the participants had positive attitude towards HPV vaccination

especially after they understood the importance and the health benefits of been vaccinated. Generally, there was positive attitude among the participants. There were service delivery barriers to distributing the vaccine at the provider level that affected the administration of the three-dose series, to adolescents. These included less frequent visits to doctors, nurses and health educators by adolescents because of the health provider attitude towards the girls when they visit the clinic.

Conclusion: The study analyzed the knowledge, attitude and practices of adolescent girls regarding HPV vaccinations at Chiwempala clinic in Chingola district. The study was qualitative, it used phenomenology study design. The site was Chiwempala clinic, convenience sampling was used to recruit participants in the study and a semi structured interview guide as a data collection tool.

CHAPTER ONE

1.0 Introduction

Human papillomavirus is a common STI, it is a lead cause of cervical cancer in women internationally. Human Papillomavirus vaccines protect against infection caused by human papillomaviruses (HPV). HPV is a group of more than 200 related viruses, of which, more than 40 are spread through direct sexual contact. Among these, two HPV types cause genital warts, and about a dozen HPV types can cause different types of cancers namely cervical, anal, or pharyngeal, penile, vulvar, and vaginal. Clinical trials have shown that HPV vaccines are highly effective in preventing cervical infection. The vaccines are given before first exposure to the virus, which is before individuals begin to engage in sexual activity. HPV vaccines have also been found to reduce infections in other tissues that HPV infects, including the anus and oral region (Chaturvedi AK, 2018).

Because the cell changes and cancers caused by HPV take years to develop, it has only recently been confirmed that the vaccines reduce the risk of these outcomes as well. Trials and real-world data from population-based studies have now demonstrated that the vaccines greatly reduce the risk of pre-cancers and cancers of the cervix, vagina, and vulva in vaccinated women (Chaturvedi AK, 2018).

Globally, about 527 000 new cases of cervical cancer and 265 000 deaths are reported every year. The burden of cervical cancer is likely to increase. Although primary and secondary screening strategies have reduced cervical cancer in high-income countries, this approach has yet to reach low-income and middle-income countries. Success in incidence reduction is dependent upon adequate coverage and adherence to screening services. The World health organisation global strategy towards the elimination of cervical cancer as a public health problem requires that 90% of girls are vaccinated with the HPV vaccine by the age of 15, 70% of women are screened with a high performance test by 35 years with a repeat screening by 45 years, and 90% of women identified with both pre-cancerous and invasive cervical cancer receive treatment (Jake M Pry, 2021) .

In 2018, Zambia had the third highest incidence of cervical cancer in the world with 66.4 new cases per 100 000 women, despite having set up the Cervical Cancer Prevention Program in Zambia (CCPPZ) in 2006 (Anayawa Nyambe, 2021)

Human papillomavirus is the most common type of sexually transmitted disease through different contacts such as skin, oral, vaginal and anal contacts. Sexually active persons are said to have been most likely come in contact with this infection however this may come with no signs and symptoms and often resolves on its own without causing any disease process. Incubation period ranges from short period of time to many years after first exposure to the infection. About 70% of the world population is said to be infected with the Human Papillomavirus that normally goes unrecognized, as it is benign.

The Human Papilloma Virus vaccine was launched for the very first time in the immunization programme in Zambia. The vaccine was introduced in May 2013 in Chongwe, Kafue and Lusaka districts to clear scheme for the rest of the country.

Knowledge means understanding, awareness of a body of idea gained either by learning or experience. Knowledge makes for sensitivity and consciousness. Attitude is a way of behaving towards an issue(s) or circumstance. Hence Hogg & Vaughan (2005) stated that attitude is a relatively enduring organisation of beliefs, feeling, and behavioural tendencies towards socially significant objects, groups, events or symbols and Eagly & Chaiken (1993) stated that attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour. Practice on the other hand is the actual application or use of an idea, belief, or method, as opposed to theories relating to it. Practice is the real act in performance based on knowledge, attitude. Knowledge, attitude and practice (KAP) can be considered as a chain of action, one influencing the other. Vaccination is a simple, safe and effective way of protecting you against harmful diseases, before you come into contact with them. It uses your body's natural defences to build resistance to specific infections and make your immune system stronger (World Health Organisation, 2021).

The Ministry of Health is working in collaboration with other line ministries such as the Ministry of General Education, Ministry of Chiefs and Traditional Affairs, Ministry of Community Development and Social Welfare and Ministry of Higher Education to ensure that the HPV vaccination programme is successfully carried out. Government is committed to ensuring that every girl is protected from cervical cancer and realises full potential and becomes a future mother of the country and also securing the future of the nation. This is part of the broader agenda to strengthen health systems in pursuit of universal health coverage anchored on a strong primary healthcare programme such as HPV vaccination and also making sure that every girl has free access to the HPV vaccine (Ministry of Health, 2019).

Objective of this study is to analyse the knowledge, attitude and practices that affect the acceptability of HPV vaccines among adolescents at Chiwempala clinic, Chingola district. This will help to improve the knowledge of Human papillomavirus and might change their attitude and practice towards it.

1.1 Statement of the problem

In 2018, Zambia had the third highest incidence of cervical cancer in the world with 66.4 new cases per 100 000 women, despite having established the Cervical Cancer Prevention Program in Zambia (CCPPZ) in 2006 (Anayawa Nyambe, 2021). Therefore, it is with no doubt that the issue of HPV vaccination is important in the fight against cervical cancer. Therefore, there is need for the issue to be tackled seriously. Although the Government has taken some measures to stem the uptake of HPV Vaccination, information that is available does not cover the status of the uptake in Chiwempala on the Copperbelt. That means little is known about HPV vaccination in Chingola's Chiwempala compound. There is a need to understand the knowledge, attitudes and practices they have on HPV vaccination. This study attempts to understand the knowledge, attitude and practices the adolescent girls have on HPV vaccination.

1.2 Justification of the study

It is expected that this study will help to bridge the knowledge gap on HPV vaccination, as well as understand the attitude and practices of adolescent girls towards HPV vaccination at community. In that case the study will add to the body of knowledge regarding the issue of HPV vaccination in Chiwempala. The knowledge that is expected to be generated through this study may also be used to formulate policies, strategies and actions necessary to deal with the issue in Chiwempala as well as generate more Research into the matter.

1.3 General research objectives

- To analyze knowledge, attitudes, and practices of adolescent girls at Chiwempala clinic, regarding human papillomavirus vaccination.

1.4 Specific research objectives

1. To determine the knowledge about HPV vaccination among adolescent girls at Chiwempala clinic.

2. To understand attitudes towards HPV vaccination among adolescent girls at Chiwempala clinic.

3. To identify the practices that are affecting HPV vaccination among adolescent girls at Chiwempala clinic.

1.5 Research questions

1. How does knowledge affect HPV vaccination among adolescent girls at Chiwempala clinic?
2. How do attitudes affect HPV vaccination among adolescent girls at Chiwempala clinic?
3. What practices are affecting HPV vaccination among adolescent girls at Chiwempala clinic?

CHAPTER TWO

2.0 Literature review

This chapter represents the knowledge, attitude and practices of Human Papillomavirus vaccination. The findings will be categorized as individual, interpersonal and services factors. Furthermore the chapter presents the conceptual framework and theoretical framework.

INDIVIDUAL FACTOR

Knowledge of HPV and HPV vaccines

The study carried out in Zambia, girls were cross examined on HPV and HPV vaccines. Most of the girls who were examined did not know what HPV or HPV vaccine was. Few girls had heard about cervical cancer but were not relating it to HPV. It was also the same case with some of them parents. "Almost all eligible girls at Kalingalinga primary school accessed the vaccine as opposed to Kings Highway School where only three out of about 18 girls were vaccinated. Even among parents and Key Informants, not all were positive towards the HPV vaccine." "This was mainly due to a lack of proper information to guide their decisions and outlook on the HPV vaccine (University of Zambia, 2015).

Studies showed lack or little of knowledge on the HPV vaccine yet high levels of acceptability (Bair RM, 2008); (Thompson VL, 2011); (Remes P, 2012) ; (Perlman S, 2014). The studies revealed considerable willingness and acceptability of HPV vaccine yet had little knowledge and awareness of cervical cancer, HPV or HPV vaccine. In the (University of Zambia, 2015) study, revealed that the lack of knowledge on the vaccine had affected the overall acceptability of the vaccine as people made decisions based on their knowledge. The lack of information led to lack of knowledge on HPV vaccine. Sensitization on the vaccine was not enough because it was a pilot program which was only done in Lusaka province (WHO, 2011). Therefore, the Ministry of Health did not want to alarm the whole nation on a program that had not been launched yet. The study also revealed, how providing parents with knowledge on HPV did not increase acceptability of the HPV vaccine for their daughters. Rather, they wanted to see the demonstration of the benefits of the vaccine before they could embark on vaccinating their daughters. Safety concerns was similar with the studies done by (Remes P, 2012) where parents questioned had little knowledge about the vaccine but still stated that the vaccine would have a benefit if it didn't have harmful side effects (University of Zambia, 2015).

INTERPERSONAL FACTORS

Adolescent Attitudes toward Vaccination

The debate to obtain human papillomavirus immunization involves adolescent perceptions as well as parental factors, and because it is recommended that health care decisions for older children and adolescents strive for assent of the patient in addition to parental and physician participation (Committee on Bioethics, 1995; Constantine & Jerman, 2007), the effectiveness of cervical cancer prevention will rely on improving cancer-related knowledge among adolescents. Many young women have never heard of cervical cancer, and limited knowledge about human papillomavirus symptoms and pap testing has been noted among adolescents (Dell, Chen, Ahmad, & Stewart, 2000; Mays et al. 2000; Mosavel & El Shaarawi, 2007). Adolescent's knowledge of human papillomavirus appears to be influenced by physicians and health educators, peer groups, and media (Heather L Gamble, 2009).

It is reviewed in the studies done in Zambia that parents who had positive attitude about vaccines were more accepting of the HPV vaccine contrast to those that had negative attitude about the HPV vaccine (Oglivie GS, 2007); (Trim K, 2012). The studies revealed that the HPV vaccine acceptability was also affected by the parental attitudes towards vaccines and the uptake of childhood vaccination. In this study, mention was often made to the previous measles vaccine, which was conducted countrywide and left most children with adverse effects. On that account, parents were not willing to allow their daughters to receive the HPV vaccine stating whoever wanted to try out their new medicines came to Africa. Surprising the girls themselves, mostly those that did not access the vaccine gave the last measles vaccine and its effects as grounds to why they were uncertain to access the HPV vaccine. The girls feared the same might happen, that is, having cervical cancer (University of Zambia, 2015).

SERVICE FACTOR

Practices

Human practices have influence on their health. In studies done on HPV vaccines, there were concerns about the vaccine giving the girls a wrong sense of protection and involving in behaviors (practices) that would threaten other features of their health.   This concern was especially with clinicians (Sussman AL, 2007).   Parents were sure that getting a child vaccinated against an STI would equate to promoting sexual behavior. Mothers showed concern about unstated involvement of sexual activities, as the adolescent girls would not worry about HPV but involve in more sexual engagement without protection, because they are vaccinated. Others were worried about an increase in immorality and dangers of pregnancy, HIV and STIs (Waller J, 2006). Nevertheless, there were parents with positive attitude towards vaccines, those who were convinced that it would be safe. They were not concerned about the possible behavioral effects (Allen JD, 2010). This was so with parents who believed that the HPV vaccine had little influence on sexual behavior (Oglivie GS, 2007).

These studies had mixed views on parental concerns for the likelihood of sexual activity if the child was vaccinated. Others expressed concerns that the HPV vaccine might incite premature sexual activities, some were not bothered that their child might be sexually active if they were given the HPV vaccine (Bair RM, 2008); (Trim K, 2012).

In conclusion, from the literature reviewed it has been observed that knowledge, attitudes and practices influence acceptability of human papillomavirus vaccinations among adolescent girls. Few studies have be done in Africa and in Zambia, to be particular in Chiwempala, no studies have be done. Most of the studies done were quantitative and the proposed study will be qualitative in nature. Hence, the findings will give an in-depth knowledge about human papillomavirus vaccination.

Research Gap

After reviewing the literature, it is clear that there is lack of knowledge on HPV vaccination, the participant’s attitudes and practices are based of decision making on behavioral factors which is affecting the vaccine’s acceptability. Therefore it is important that knowledge is given to the public, so that they are fully aware and prepared before embarking on such programs in the communities There is need for a research on HPV vaccine knowledge, attitudes and practices that are affecting acceptability to understand how best to deliver

2.1 Theoretical Framework

The Social Cognitive Theory is used to understand the knowledge, attitudes and practices of human papillomavirus vaccination among adolescent girls at Chiwempala clinic.

The Social Cognitive Theory was developed by Bandura in 1989; the theory is based off on derivative learning. This theory states that behaviors are learned and developed through observation, imitation and desirable stimulus. It further goes on to state that individuals will develop or adopt certain behaviors by observing the beneficial outcomes of other people's actions (Bandura 1999). According to Nabavi (2012) Bandura theory human behavior is influenced by their environment, social, personal elements. The social cognitive theory has six main concepts:

1) Reciprocal determinism: this involves the individual in question, behavior and environment influencing them.
2) Behavioral capability: cognitive understanding and skill needed to perform a behavior.
3) Expectations: predicted outcomes
4) Self-efficacy: confidence in ones actions
5) Observational learning: this is learned behavior by observing others
6) Reinforcements: reactions to behaviors that either increase or decrease the likelihood of repeated occurrence.

2.2 Conceptual Framework

Fig 1: Factors associated with human papillomavirus in adolescents at Chiwempala clinic.

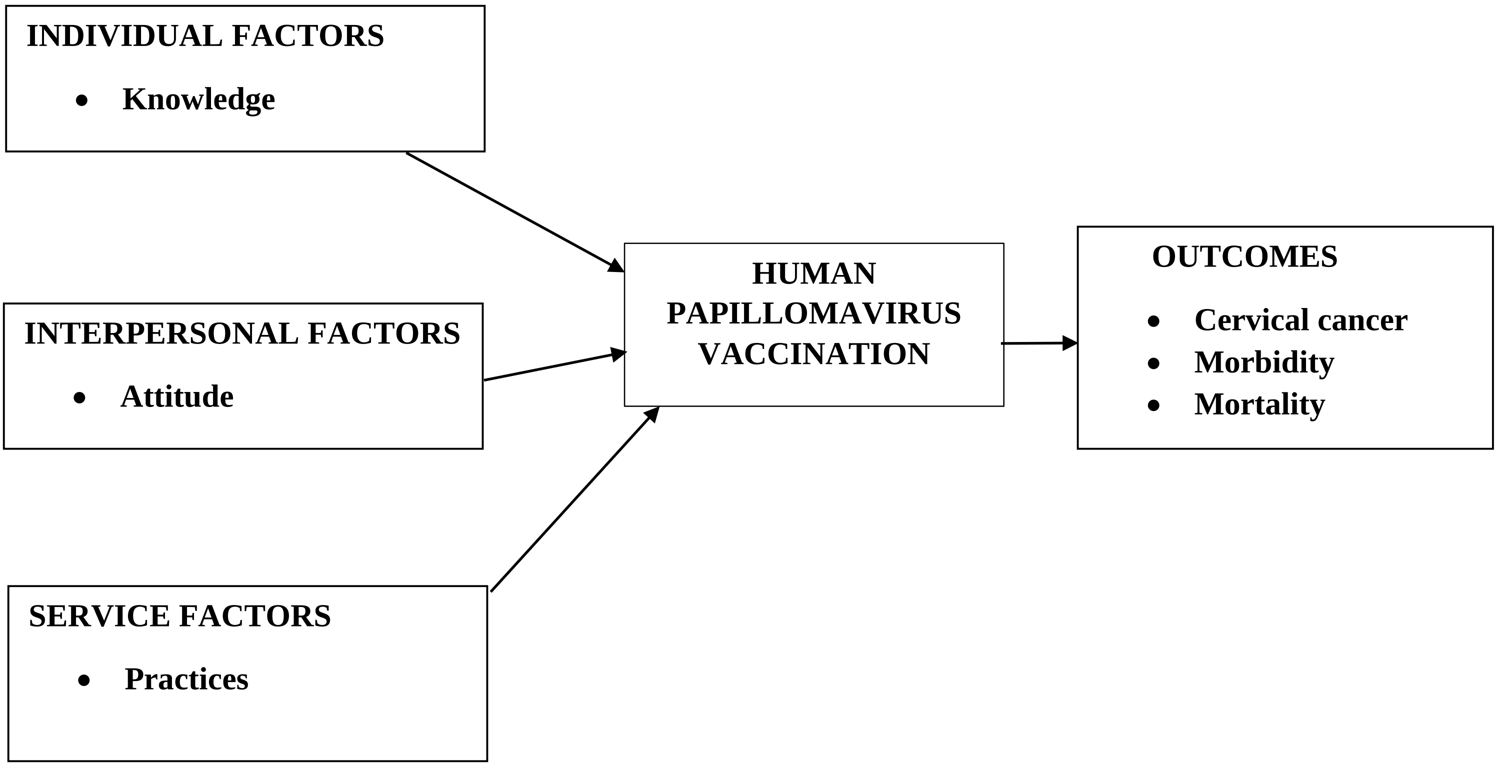

Figure 1 indicated factors associated with human papillomavirus vaccination in adolescents include knowledge, attitudes and practices.

CHAPTER THREE
3.0 Methodology

This chapter discusses the research methods that was used by the researcher to collect and analyze data. This chapter contains the research approach, research design, and study population, sampling techniques, data analysis and ethical considerations.

3.1 Study Approach

This study used a qualitative approach for the research. Qualitative research uses a systematic and rigorous approach that aims to answers questions concerned with what something is like for example a patient experiences, what people think or feel about something that has happened, and it may address why something has happened as it has. Qualitative data often takes the form of words or text and it can include images (Seers, 2012).

3.2 Study Design

This study used phenomenology study design. Phenomenology looks to gather information that explains how individuals experience a phenomenon and how they feel about it. It recognizes that there is no single objective reality, instead everyone experiences things differently. The outcome is described from the point of view of the participants. However, the researcher is still able to derive a set of findings that can be used to identify themes surrounding the phenomena under study (Hoover, 2021).

3.3 Study Population/ Target Population

This study was conducted at Chiwempala clinic because it has a youth friendly space where health promoters meet with adolescents to educate them on various health activities. The target population were Adolescent girls.

Eligibility Criteria

Inclusion Criteria:

Girls between 9 and 15 years old

Exclusion Criteria:

Girls not in the age range of 9 to 15

Boys

3.4 Sample size

Qualitative sample size may best be determined by the time allocated, resources available, and study objectives (Patton, 1990). Qualitative sample sizes should be large enough to obtain feedback for most or all perceptions. Getting most of the perceptions lead to the attainment of data saturation point. Saturation occurs when adding more participants to the study does not result in additional perspectives or information. Therefore, the study sample was determined by data saturation point.

3.5 Sample procedures

Convenience sampling was used to recruit participants in the study. This is when people are invited to participate in the study because they are conveniently available with regard to access, location, time and willingness. Convenience sampling is relatively fast and easy way to achieve the sample size need for the study (Violeta Lopez, 2012).

The sampling technique helped to obtain primary data on the factors affecting human papillomavirus vaccination among adolescents. The findings served as pointers and might help authorities in health authorities to decide where actions are required or not (Violeta Lopez, 2012).

3.6 Data collection methods

Qualitative data was collected using a semi-structured interview guide. A semi-structured interview is a data collection method that relies on asking questions within a predetermined thematic framework. However, the questions are not set in order or in phrasing. Semi structured interview enabled the researcher to ask further questions depending on how the participants responded. During data collection, the responses of the participants was voice recorded and in a note book.

Before interviewing the study participants, the researcher created a rapport with them so that they are free to voice out their perception. The researcher asked broad questions to elicit responses.

3.7 Data analysis

Data analysis involved thematic method. Streubert and Carpenter (1999) thematic method of data begins with listening to participants' verbal descriptions, and is followed by reading and re-reading the verbatim transcriptions or written responses. Therefore, data analysis involved listening, reading and re-reading what was recorded in a note book. Then, a list of topics was created and similar topics was clustered together. That was done in order to make sense of the whole data.

3.8 Ethical consideration

Permission was obtained from the University of Lusaka's Research Committee, secondly, a written informed consent form was obtained after clear explanation about the purpose of the study. Privacy was maintained as respondents were given an option of choosing a private place where the interview can be conducted. Anonymity and Confidentiality was adhered to throughout the research, as subjects were not be identified either by name or any other unique identifiers rather the study used responses and numbers.

CHAPTER FOUR

4.0 Results

The study set out to analyse the knowledge, attitudes and practices of adolescent girls at Chiwempala clinic regarding HPV vaccination. The terms knowledge, attitude and practices in this study are defined as; knowledge means understanding, awareness of a body of idea gained either by learning or experience. Attitude is the way of behaving towards an issue or circumstance. Practices on the other hand is the actual application or use of an idea, belief, or method, as opposed to theories relating to it. The study identified individual, interpersonal, and service related factors that might influence HPV vaccination. The findings are under the following theme knowledge regarding HPV vaccination, attitude towards HPV vaccination and practices affecting HPV vaccination. A total number of 10 girls were involved in the study of which 70% were 14years old and 30% were 15 years old.

Individual factors

The first objective of this study was to determine the knowledge regarding HPV vaccination among adolescent girls at Chiwempala clinic. The theme is knowledge regarding HPV vaccination.

Knowledge regarding HPV and HPV vaccines

The study was set to find out the knowledge adolescent girls have on HPV vaccination, because decision to be vaccinated can be determined by knowledge. Despite of the existence of regulations on the HPV vaccination in Zambian healthcare services, most of the study participants were not aware of HPV vaccination, it is evidenced from some of the responses, when asked about HPV vaccination majority of the participants (70%) narrated that, they had no knowledge but they had heard of human papillomavirus (HPV) *"I don't know anything about HPV vaccination but I have little knowledge about HPV", "I don't know what HPV vaccination is all about"*. Further, when asked how HPV is transmitted 60% of the participant narrated that it transmitted through skin to skin contact *"I think it is transmitted through skin to skin contact"* while the other 40% of participants said it is transmitted through sexual activities *"it is transmitted through sex"*, there were a lot of misconceptions among the participants on the transmission, prevention and treatment of HPV. Lack of knowledge is affecting the rate at which the girls are getting vaccinated, participants make decisions to either go for vaccination or not based on the knowledge that they have on HPV. Generally, there was lack of knowledge on HPV vaccination among the participants. This lack of knowledge might have an influence on the vaccination rates as participants can either blindly accept or refuse to be vaccinated. However, it was noted that majority of the participants had positive attitude towards the vaccine. Similarly, the participants did not know about HPV vaccination while others wondered why such a vaccine was given to them because they are too young to have cervical cancer nevertheless, the participants were more interested in learning about HPV vaccination.

Interpersonal factor

Attitude towards HPV vaccination

Attitude plays a big role in the acceptability of HPV vaccine. The participants who have positive towards vaccines in general, can easily accept to be vaccinated compared to those that have negative to vaccines. This study aimed to understand the attitudes towards HPV vaccination, the study identified positive and negative attitudes contributing to low rates of HPV vaccination among adolescent girls at Chiwempala clinic. Minority of the participants when asked about their thoughts on HPV vaccination described their bad experience with vaccines, one of the participant narrated how COVID 19 vaccine gave her some side effects, she stated that after she got vaccinated she experienced nausea and skin rash. *" I just got vaccinated went back home, I vomited the whole night and had rush on my body that's why I no long accept vaccines."* Other participants when asked thought HPV vaccination is for the low income population because few can afford to pay medical bills. They further narrated that their parents/guardians can pay for their medical bills *"my parents can pay for my medical bills"*, therefore they did not see the reason to be vaccinated, especially that they did not know the safety of the vaccine *"I have not heard much about that vaccine think it is not safe"*.

On the other hand, majority of the participants, when asked about their thought on HPV vaccination stated that if the vaccine is free and they understand the benefits of been vaccinated, then they did not have the reason to be against the vaccination. *"I cannot afford to pay for the vaccine".*

Those that had bad experience with vaccines had negative attitude toward HPV vaccination because of their past experience and concerns of about the safety, nevertheless, majority of the participants had positive attitude towards HPV vaccination especially after they understood the importance and the health benefits of been vaccinated. Generally, there was positive attitude among the participates

Service factors

Practices affecting HPV vaccination

The third objective was to identify service related factors in the delivery and access of HPV vaccination. Early sexual activities among the girls before vaccination is high, the vaccine is only given to girls that have not been exposed to the virus. This disqualifies the participants from the vaccination program, *"I am sexually active", "I only tried it once"*. This automatically disqualifies the participants and makes them shun away completely because they do not see the need to be vaccinated as they might be exposed to the HPV virus and the vaccination is only administered to girls who were not exposed to sexual activities. This leads to girls missing out on the opportunity of been vaccinated. One of the girls did not understand what been sexually active meant, this made the researcher think maybe this was the case with the other girls, the girls might have said yes to something they did not understand.

Healthcare providers are key drivers of preventive healthcare behaviours, including vaccinations. Past studies reported that there is a greater likelihood of HPV vaccination, when healthcare providers gave stronger recommendation verses a weaker one. Healthcare providers failure to raise awareness, educate, sensitize and promote through provision of guidance on the timing of vaccination (prevention) and to address any misconceptions or concerns that the girls and parents or guardians may raise that maybe barriers for vaccination. Lack of HPV campaigns lead to lack of knowledge and bad attitudes towards the vaccine, it made it hard to convince parents/guardians to consent to the vaccination of their children. This was evident from the response the researcher got;

The above responses clearly shows that, there were service delivery barriers to distributing the vaccine at the provider level that affected the administration of the three-dose series, to adolescents. These included less frequent visits to doctors, nurses and health educators by adolescents because of the health provider attitude towards the girls when they visit the clinic. The girls narrated how the nurses are always shouting on top of their voices for no reason, which made the girls less comfortable.

There is need for additional primary care visits to receive the three necessary doses, increased time (period) to plan the vaccine administration and implementation of routine patients recall systems to prompt vaccination visits. It was observed, there was little systematic guidance for fostering the necessary decision-making skills in the adolescent in the community to allow the girls make informed choices when they visit the clinic and in their daily activities.

One of the participants when asked what she thought on the administration at the clinic, she narrated how some health workers are rude to her, *"the workers here are not friendly, I feel uncomfortable discussing issues related to sexuality with them."*

Perceived risk, participants perceived their risk for HPV within the context of their sexuality. They perceived that to be low at risk for HPV because there is no history of cervical cancer in their family and they did not see themselves to be sexually active currently, even if they to be sexually active, she cannot fail to use a condom. These participants lacked urgency about the need of vaccination before the onset of sexual activity.

"There is no rush, I just turned

CHAPTURE FIVE

5.0 Discussion

5.1 Discussion of key findings with supporting literature

The study analyzed the KAP among adolescent girls of the HPV vaccination at Chiwempala clinic in Chingola. In relation to the objectives, the analysis of KAP of HPV was grouped under three main categories: individual, interpersonal and service-related factors. This chapter discusses how the results from the study compares with other studies in the categories.

There was low knowledge about HPV vaccination, which might affect the vaccination rates among adolescent girls, they might make decisions to either get vaccinated now or in the future based on the knowledge that they have on HPV. Other studies showed higher levels of knowledge on the HPV vaccine and higher acceptability levels (Sitimela, 2019, Trim et al, 2011). These studies showed high acceptability of HPV vaccine and high levels of knowledge, more perceived benefits of vaccination and greater perceived susceptibility of HPV related diseases. In this study, there was lack of knowledge on the HPV vaccination, this can affect the overall vaccination program of HPV, as the girls will make decisions based on what they know.

The lack of knowledge was caused by lack of sensitization on HPV vaccine in the community. There is not enough sensitization on HPV vaccines because the HPV vaccination program has not been given much attention, resources and seriousness it needs by the government through the ministry of health (MoH). Ever since the last HPV vaccination program which was a pilot program only in Lusaka province (WHO, 2011). This study showed that the participant's lack of knowledge can either increase or decrease HPV vaccination rates.

Attitude plays a big role in the acceptability of HPV vaccine. The participants who had positive attitude towards vaccines in general, can easily accept to be vaccinated compared to those that had negative attitude to vaccines. Minority of the participants when asked about their thoughts on HPV vaccination described their bad experience with vaccines, one of the participant narrated how COVID 19 vaccine gave her some side effects, she stated that after she got vaccinated she experienced nausea and skin rash (Oglivie et al, 2007, Cunningham et al, 2015). This was in harmony with the past reviewed study on perceived risks of the vaccine, most participants from reviewed studies needed more information about the vaccine, mostly on its safety and possible side effects before they can be vaccinated (Thompson, 2011, Ogilvie et al, 2007). In the past reviewed studies parents were worried about the possible side effects of HPV vaccine. They felt was not right to accept the vaccine before knowing its risks.

On the other hand, participants who had negative attitude towards the HPV vaccine were not in support of HPV vaccination. The past reviewed studies showed that the HPV vaccine acceptability was affected negatively by the parental attitudes towards vaccines in general and the uptake of vaccination (Trim et al 2012, Ogilvie et al., 2007). In this study, parent's attitude was based on their religion and traditions.

Early sexual activity among the girls before vaccination was high, which lead to the girls shunning away completely because they did not see the need to be vaccinated as they might be exposed to the HPV virus and the vaccination was only administered to the girls who were not exposed to sexual activities. It is advised that the girls should be vaccinated before they start indulging in sex (WHO, 2011). In this study some girls were sexually active, after finding out the condition for vaccination they shunned away and missed out on the opportunity of been vaccinated.

Healthcare providers are key drivers of preventive healthcare behaviours, including vaccinations. Past studies reported that there is a greater likelihood of HPV vaccination, when healthcare providers gave stronger recommendation verses a weaker one. This is in regularity with (University of Zambia, 2019, Brabin et al 2011) research which reported a poor performance of the vaccination program in initial phases. This was contributed to the poor working relationship between the Ministry of Health (MoH) and Ministry of Education (MoE) in the early stages of the study. In this study the vaccination program was carried out at the clinic. In other studies (University of Zambia, 2019, Brabin et al 2011, Watson-jones et al 2012) carried out a school-based provision of HPV vaccine. These cited that follow-ups was made easier and accessibility easier for the targeted group.

Overall, this study proposes that there are different factors that play a role in KAP of the HPV vaccine. A single person is not an entity in making decision to consent or not consent to the vaccine. By preference is influenced by different factors at individual, interpersonal and service quantity. This is underpinned by other past studies conducted.

5.2 Limitations

First, the study was descriptive, aimed to analyze and give in-depth insights on KAP of HPV vaccines, additionally the study population/target were minors, getting consent from parents was difficult because they had no knowledge about the vaccine. To overcome these limitation

I read and researched more on how to give deep insights on a topic. I also educated the parents about HPV vaccination, this helped to get consent for their child to participate in the study.

CHAPTER SIX
6.0 Conclusion and Recommendations

Recommendations

- Strengthen capacity and working partnership between healthcare providers and the community.
- Intensify sensitization and education on HPV vaccine through social media, newspapers, and TV and community meetings.
- Administration of the vaccine at an earlier age should be considered, young people these days are engaging in sexual activities as early as 12 years.
- Involvement of different stakeholders the media, the community, the government and NGOs etc.
- More research on HPV should be carried out to increase the acceptability of HPV vaccine.

Conclusion

The study looked at the KAP of HPV vaccinations among adolescents at Chiwempala clinic in Chingola district. The study analyzed the knowledge attitude and practices of adolescent girls at individual, interpersonal and service levels. At individual level, there was lack of knowledge of HPV vaccination among adolescent girls. The participants did not know about HPV vaccination while others wondered why such a vaccine was given to them because they are too young to have cervical cancer nevertheless, the participants were more interested in learning about HPV vaccination. At interpersonal level participates that had bad experience with vaccines had negative attitude toward HPV vaccination because of their past experience and concerns of about the safety, nevertheless, majority of the participants had positive attitude towards HPV vaccination especially after they understood the importance and the health benefits of been vaccinated, generally, there was positive attitude. At service level participants perceived their risk for HPV within the context of their sexuality. They perceived that to be low at risk for HPV because there is no history of cervical cancer in their family and they did not see themselves to be sexually active currently, even if they to be sexually active, she cannot fail to use a condom. These participants lacked urgency about the need of vaccination before the onset of sexual activity.

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APPENDIX

Work plan

PLAN ACTIVITY	September 2022	October 2022	November 2022	March 2022	April 2022	May 2022
Chapter 1						
Chapter 2						
Chapter 3						
Submission of the proposal						
Data collection						
Data analysis						
Final submission						

Budget

Description	Cost
Literature Review	
Data Bundles	K300.00
Photocopying of relevant materials	K100.00
Subtotal	**K400.00**
Stationary	
1 ream of paper	K170.00
One notebook	K30.00
Subtotal	**K200.00**
Data analysis and Report writing and presentation	
Typing and printing of the report	K150.00
Photocopying the report at K2 per page x 55 pages	K110.00
Subtotal	**K260.00**
Transport	k500.00
Food	k400.00
Subtotal	**k900.00**
Ethical consideration	K500.00
Subtotal	k500.00
GRAND TOTAL	**K2260.00**

Interview Guide

In 2018, Zambia had the third highest incidence of cervical cancer in the world with 66.4 new cases per 100 000 women, despite having established the Cervical Cancer Prevention Program in Zambia. Therefore, it is with no doubt that the issue of HPV vaccination is important in the fight against cervical cancer. There is need to under the factors influencing knowledge, attitudes and practices of HPV and its vaccine in Zambia. This interview aims to analyse the knowledge, attitude and practices of adolescent girls regarding HPV vaccination at Chiwempala clinic in Chingola.

Questions

How old are you?..

Do you go to school?..

Do you know about Human papilloma virus (HPV) and HPV vaccination?............................

………………………………………………………………………………………

What is Human papilloma virus(HPV)?...

………………………………………………………………………………………

How is Human papilloma virus (HPV) transmitted ?...

………………………………………………………………………………………

What is Human papilloma virus (HPV) vaccination?...

………………………………………………………………………………………

What are your thoughts on Human papilloma virus (HPV) vaccination?...............................

………………………………………………………………………………………

………………………………………………………………………………………

Do you believe in vaccines?..

……………………………………………………………………………………..

Why if YES/NO to the above question?...

……………………………………………………………………………………..

……………………………………………………………………………………..

How often do you visit the clinic?..

……………………………………………………………………………………..

How is the relationship between you and the health workers at Chiwempala clinic?..

....

....

Consent form

My names are Hellen Mbelenje a student at the University of Lusaka from Department of Public Health is carrying out a study on Human papillomavirus vaccination among adolescent girls. This study is being done in partial fulfilment requirement of the Bachelor of Science in Public Health, which will be submitted to the school of Medicine and Public Health of University of Lusaka.

Your child is invited to take part in the study being carried out. The aim of the research is to study the knowledge, attitudes and practices of Human papillomavirus vaccination among adolescent girls at Chiwempala clinic. Your child is in the target population of the study. The session will be recorded on paper.

Your child is required to answer questions regarding the topic. The questionnaire will only take few minutes to complete it. Participation is voluntary, your child can either choose to participate or not participate. If she agrees, she is free to withdraw from the study at any time. For any questions, please contact the investigator Hellen Mbelenje on 0966007299.

By signing below I confirm that I understand that participation in this research is voluntary.

Name of child:…………………………………………………………….

Sign:………………………………………………………………………(parent/guardian)

Date:……………………………………………………………………….

National Health Research Authority Letter

NATIONAL HEALTH RESEARCH AUTHORITY

Lot No. 18961/M, off Kasama Road, Chalala, P.O. Box 30075, LUSAKA

Tell: +260211 250309 | Email : nhrasec@nhra.org.zm | www.nhra.org.zm

Ref No: NHRA000044/24/01/2023 **Date: 24th January 2023**

The Principal Investigator,
Hellen Mbelenje,
UNILUS,
Lusaka, Zambia.

Dear Ms Mbelenje,

Re: Request for Authority to Conduct Research

The National Health Research Authority is in receipt of your request for ethical clearance and authority to conduct research titled **"Knowledge Attitudes and Practices of Human Papillomavirus Vaccination among Adolescents Girls at Chiwempala Clinic, Chingola District."**

I wish to inform you that following submission of your request to the Authority, our review of the same and in view of the ethical clearance, this study has been **approved** on condition that:

1. The relevant Provincial and District Medical Officers where the study is being conducted are fully appraised;
2. Progress updates are provided to NHRA bi-annually from the date of commencement of the study;
3. The final study report is cleared by the NHRA before any publication or dissemination within or outside the country;
4. After clearance for publication or dissemination by the NHRA, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, University leadership, and all key respondents.

Yours sincerely,
Acting Director/Chief Executive Officer

Ms Sandra Chilengi-Sakala,
National Health Research Authority

Ethical Clearance Letter

SCHOOL OF MEDICINE AND HEALTH SCIENCES LEOPARDS HILL CAMPUS

Plot No. 37413, Off Alick Nkhata Mass Media. P. O Box 36711, Lusaka.
Phone: +260211258505, 258409 Fax +260211233409; Cell +260976075850, 961917862,
E-mail:unilus@zamnet.zm,ictar@zamnet.zm

SCHOOL OF MEDICINE AND HEALTH SCIENCES RESEARCH ETHICS COMMITTEE

Ref no: IORG0010092-2023/024

Date: 15th DECEMBER, 2022

HELLEN MBELENJE - BSPH19217643

Re: RESEARCH TITLE: KNOWLEDGE ATTITUDES AND PRACTICES OF HUMAN PAPILLOMAVIRUS VACCINATION AMONG ADOLESCENTS GIRLS AT CHIWEMPALA CLINIC, CHINGOLA DISTRICT

The above research was submitted to the research ethics committee for review. The study has no major ethical problems and is approved subject to the following:

1. The study cannot be changed without express permission of the UNILUS Research ethics committee
2. Approval from the Lusaka District health Management or equivalent health authorities should be sought.
3. The study tools should be added.
4. An informed consent form should be attached and filled by all study participants (If dealing with primary data)
5. The risks and benefits should be included in the consent form.
6. Ensure before commencement that approval is sought from ZNHRA Congratulations and the committee wishes you success in your work.

Prof Kasonde Bowa

MSc(Glasgow),M.Med(UNZA),FRCS(Glasgow),FACS,FCS,DPH(LSTMH),MPH(UCL)

Chairman- UNILUS REC

Professor of Urology and Consultant Urologist

Executive Dean

University of Lusaka and University Teaching Hospital School of Medicine and Health Sciences.

Permission Letter

SCHOOL OF MEDICINE AND HEALTH SCIENCES LEOPARDS HILL CAMPUS

Plot No. 37413, Off Alick Nkhata Mass Media. P. O Box 36711, Lusaka.
Phone: +260211258505, 258409 Fax +260211233409; Cell +260976075850, 961917862,
E-mail:unilus@zamnet.zm,ictar@zamnet.zm Date: 15th DECEMBER, 2022

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……………………………………………………………………..

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PERMISSION FOR **HELLEN MBELENJE - BSPH19217643** TO CONDUCT A RESEARCH STUDY AT YOUR FACILITY/ INSTITUTION/ORGANIZATION

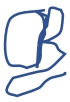
Reference is made to the above subject matter

The University of Lusaka, School of Medicine and Health Sciences here by requests for permission for **HELLEN MBELENJE** Public Health Student to conduct research at your facility/ institution/ organization, entitled**; KNOWLEDGE ATTITUDES AND**

PRACTICES OF HUMAN PAPILLOMAVIRUS VACCINATION AMONG ADOLESCENTS GIRLS AT CHIWEMPALA CLINIC, CHINGOLA DISTRICT. The research is in partial fulfilment of the requirements for the degree of Bachelor of Science Public Health. This is purely for academic purposes and information gained in such a way will not be used in the public domain without prior authorization from the institutions/ organizations involved.

The research topic has been cleared by the University of Lusaka, School of Medicine and Health Sciences Research Ethics Committee as per the attached copy. Data collection is expected to be done from **1st January, 2023 to 31st March, 2023**.

The University of Lusaka avails itself of this opportunity to review to your office the assurances of its highest considerations and looks forward to your timely and favourable response.



Prof Kasonde Bowa

MSc(Glasgow),M.Med(UNZA),FRCS(Glasgow),FACS,FCS,DPH(LSTMH),MPH(UCL)

Chairman- UNILUS REC

Professor of Urology and Consultant Urologist

Executive Dean University of Lusaka and University Teaching Hospital School of Medicine and Health Sciences.