ASSESSING KNOWLEDGE, ATTITUDE, AND PRACTICE (KAP) TOWARDS CERVICAL CANCER AND HPV VACCINATION AMONG COLLEGE STUDENTS

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in

Pharmaceutical Management

by

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Under the Supervision and Guidance of

Dr. Ashok Peepliwal

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IIHMR UNIVERSITY

CERTIFICATE

This is to certify that **Anjum Naaz,** in partial fulfillment of the requirements for the award of the degree of **MBA (Pharmaceutical Management)** from the IIHMR University, Jaipur, has successfully completed her internship at **IIHMR University, Jaipur** during Mar 10 – June 10, 2025.

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CERTIFICATE

This is to certify that the dissertation titled "**ASSESSING KNOWLEDGE, ATTITUDE, AND PRACTICE (KAP) TOWARDS CERVICAL CANCER AND HPV VACCINATION AMONG COLLEGE STUDENTS"** is a record of the research work undertaken by **Anjum Naaz** in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

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DECLARATION BY STUDENT

I hereby declare that this dissertation titled **The growing role of AI and digital health in medical devices, market trends regulatory challenges and future prospects** is the Bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Mansi Jariya

Date:

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Thank You

Sincerely
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ABSTRACT

Background: Cervical cancer remains a leading cause of cancer-related mortality among women, especially in low- and middle-income countries. Persistent high-risk HPV infection is the primary cause. Despite the availability of effective vaccines, uptake remains low due to socio-cultural and informational barriers.

Objectives: To assess knowledge, attitude, and practice (KAP) regarding cervical cancer and HPV vaccination among college students and identify influencing factors.

Methods: A cross-sectional study was conducted at IIHMR, Jaipur, involving 78 postgraduate students who completed a validated KAP questionnaire. Data were analyzed using SPSS Version 29.0 for descriptive and inferential statistics.

Results: Among the participants, 61.5% were female and 34.6% aged 21–23. While 84.6% were aware of cervical cancer, only 64.1% identified HPV as the primary cause. Although 70.5% knew about the HPV vaccine, just 28.6% expressed willingness to get vaccinated. Significant positive correlations were found between knowledge and both attitude ($p < 0.01$) and practice ($p < 0.05$). Barriers included uncertainty, perceived low risk, and cost.

Conclusion: The study highlights the need for targeted educational efforts in colleges to improve HPV vaccine awareness and uptake. Addressing misinformation and financial barriers is essential for effective cervical cancer prevention.

Keywords: Cervical cancer, HPV, HPV vaccine, knowledge, attitude, practice, college students, prevention.

CHAPTER 1

INTRODUCTION

INTRODUCTION

Cervical cancer is unique of the limited cancers which is largely avoidable, yet it continues to affect many women around the world. The chief cause of cervical cancer is a continuing infection with definite types of the human papillomavirus (HPV), especially categories 16 and 18. These two types remain linked to nearly 70% of all cervical cancer cases [1]. Even though there are effective screening methods and vaccines to prevent it, cervical cancer still leads to over 342,000 deaths every year globally, making it the fourth most mutual cancer that causes death in women [2,3].

India is among the countries most affected by cervical cancer. According to GLOBOCAN 2020, India alone is responsible for nearly 20% of all cervical cancer cases worldwide, with around 123,907 new cases and 77,348 deaths reported every year [4]. This high number is mostly due to low awareness about the disease, poor access to healthcare, and cultural taboos surrounding women's reproductive health [5].

HPV is single of the most public infections of the reproductive structure and spreads mainly through sexual contact. Whereas many HPV contagions go absent on their own, specific high-risk types can foundation abnormal cell variations in the cervix, which might turn into sarcoma if not treated [6,7]. Thankfully, there are vaccines available to prevent HPV infection. These vaccines—bivalent, quadrivalent, and nonavalent—have greatly improved the chances of preventing cervical cancer globally [8,9].

To tackle this global health issue, the World Health Organization (WHO) introduced a worldwide strategy in 2020 to eradicate cervical cancer. Their goals include immunizing 90% of lassies against HPV by time of life 15, transmission 70% of women by age 35 and again at 45, and confirming 90% of those through abnormal results be given suitable treatment [10,11]. If these goals are achieved by 2030, it's estimated that more than 62 million deaths could be prevented over the next hundred years [12].

Still, the reality in many low- and middle-income countries, including India, is that HPV vaccination rates remain very low. In India, only about 1.5% to 3.5% of eligible girls receive the vaccine. The main reasons include a lack of knowledge, high vaccine costs, absence of vaccination programs in schools, and social stigma [13–15]. To overcome these hurdles, India introduced an affordable, locally made HPV vaccine called *Cervavac* in 2022. This vaccine, developed by the Serum Institute of India, is meant for girls aged 9 to 14 years [16,17].

Young people, especially college students, are a key group when it comes to preventing cervical cancer. Most of them are either in the recommended age for HPV vaccination or approaching it. This makes them an ideal target for awareness programs and behavior change campaigns. Unfortunately, several studies show that many college students don't know enough about HPV and cervical cancer. Many are also unsure about how safe or effective the vaccine is [18,19].

This is where Knowledge, Attitude, and Practice (KAP) studies come in. KAP surveys help researchers understand what people know about a health issue, how they feel about it, and what they actually do. When it comes to cervical cancer, KAP studies can highlight gaps in knowledge, beliefs about the vaccine, and habits like getting screened or vaccinated. These insights are crucial for designing effective health campaigns tailored to different groups of people [20,21].

Research shows that people who are well-informed about HPV are more likely to get vaccinated and go for regular screening. On the other hand, a lack of awareness and misinformation often prevents people from taking preventive steps [22,23]. A review of studies in sub-Saharan Africa found that low knowledge levels and cultural myths were major barriers to vaccine acceptance—challenges that are also common in India [24].

Other reasons for low vaccine uptake include fear of side effects, mistrust in vaccines, resistance from parents, and poor communication by healthcare providers [25]. Solving these problems requires a mix of strategies, such as adding HPV education to school and college syllabi, encouraging vaccination for both boys and girls, and involving teachers, parents, and doctors in awareness efforts.

Given all these factors, studying what college students know, believe, and do regarding cervical cancer and HPV vaccination is essential. Their views can help shape future health policies and awareness campaigns aimed at young people. This learning aims to discover the knowledge, attitudes, as well as practices of college students about cervical cancer prevention and HPV vaccination, and to support the international effort to abolish cervical cancer.

AIM

Assessing Knowledge, Attitude, and Practice (KAP) Towards Cervical Cancer and HPV Vaccination Among College Students

OBJECTIVES

1. To assess the knowledge level of college students about cervical cancer and HPV vaccination.
2. To evaluate the attitude of students towards HPV vaccination and cervical cancer prevention.
3. To determine the preventive practices followed by students related to HPV and cervical cancer.

CHAPTER 2

REVIEW OF LITERATURE

REVIEW OF LITERATURE

Shazia Rashid *et al.* (2016) A study was conducted on understanding the current landscape of knowledge, awareness, and attitudes toward HPV, its vaccines, and cervical cancer among Indian college students. Conducted among 1,580 undergraduate students aged 16 to 26 years across both genders, the research used a questionnaire-based survey to capture essential insights into student awareness levels. Notably, female students demonstrated a higher level of awareness about cervical cancer, HPV infection, and the availability of vaccines compared to their male counterparts.

One key observation from the study was that students pursuing biology or health-related disciplines were more informed than those from non-biology backgrounds. This suggests a strong correlation between academic exposure to biological sciences and increased awareness of public health issues like HPV and cervical cancer. However, even among those with some degree of awareness, knowledge about specific HPV types and the details of available vaccines was lacking, indicating superficial understanding rather than in-depth knowledge.

The findings further highlight that while the majority of students supported the idea of vaccinating adolescent girls against HPV, there remains a significant gap in comprehensive knowledge that can influence informed decision-making. Age and gender were important predictors of awareness, with older female students being significantly more knowledgeable.

The study underscores the urgent need for targeted educational programs and public health campaigns to address misinformation, increase awareness, and promote vaccine acceptance. Introducing structured HPV and cervical cancer awareness sessions into college curricula, especially for non-biology students, could serve as a pivotal intervention. This is particularly crucial in a country like India, where sociocultural taboos often hinder open discussions about sexual health and preventive care.

Priyadarshani *et al.* (2023) A study was conducted on assessing the knowledge, attitudes, and practices (KAP) regarding HPV, its vaccination, and cervical cancer among paramedical students at the Faculty of Allied Health Sciences, University of Peradeniya in Sri Lanka. With a purposive sample of 200 students from five-degree programs, the study sheds light on the current status of HPV-related awareness in a healthcare education setting.

One of the most notable findings from the study is the low level of knowledge among participants. Only 12% of the respondents achieved fair to satisfactory knowledge scores, highlighting a significant gap in understanding the causes and prevention strategies of HPV and cervical cancer. Differences in knowledge levels were found to be statistically significant across gender, academic year, and ethnic backgrounds,

suggesting that socio-demographic and educational exposure plays a vital role in shaping awareness levels.

In terms of attitudes, a majority of the students (79.5%) demonstrated a fair to satisfactory outlook towards HPV-related health issues and vaccination. This positive attitude, however, did not translate into proactive behavior. Practice scores—indicative of actual engagement in preventive measures such as vaccination or health-seeking behavior—were found to be low, with only 12% of participants exhibiting fair to satisfactory practices. Interestingly, while the attitude scores varied significantly between genders, the practice scores showed no such variation across different student categories.

The contrast between the positive attitudes and poor practices underscores the presence of systemic or perceptual barriers that prevent students from acting on their awareness. The low knowledge scores further imply a lack of structured educational content or awareness campaigns within their academic curriculum, which could otherwise empower students with essential public health information.

This study emphasizes the importance of integrating targeted health education into paramedical training programs. Given their future roles in patient interaction, these students must be equipped with accurate knowledge and encouraged to adopt preventive health behaviors. Educational interventions tailored to address cultural sensitivities and gender disparities could be instrumental in improving the overall effectiveness of HPV-related public health efforts.

In conclusion, while attitudes towards HPV and cervical cancer prevention are generally favorable among paramedical students in Sri Lanka, significant deficits in knowledge and practical engagement highlight the urgent need for systematic awareness programs. Bridging this gap is critical not only for individual student health but also for the broader impact these future professionals can have in promoting preventive healthcare.

Rahman *et al.* (2023) A study was conducted on assessing knowledge, attitudes, and practices (KAP) of medical students regarding cervical cancer prevention. The findings reveal that while a majority of respondents demonstrated moderate awareness and held favourable attitudes toward prevention strategies, there was a notable disconnect between knowledge and actual practice. For instance, despite the general understanding of cervical cancer and its risk factors, uptake of preventive measures such as Pap smear testing and HPV vaccination remained significantly low. Notably, no participant had undergone a Pap smear, and only a small fraction (11.23%) reported receiving the HPV vaccine.

The gender gap observed in the study is also important; female students consistently scored higher in both knowledge and attitudes, suggesting a stronger engagement with women's health issues. This disparity may reflect societal expectations, cultural influences, or gaps in medical education regarding gender-sensitive health topics.

These findings are consistent with other regional studies, which have also identified limited practice despite sufficient awareness among healthcare students. The implications are concerning, especially considering that these students are future physicians who will be responsible for advocating and implementing public health interventions. The lack of engagement in preventive behaviours points to the need for systematic changes in medical training, including curriculum enrichment with a stronger emphasis on HPV-related education, screening protocols, and vaccine advocacy.

The study highlights an urgent need to bridge the gap between knowledge and practice in cervical cancer prevention among students. Empowering them through structured education, practical training, and improved access to vaccination and screening tools will be critical in transforming awareness into action, ultimately contributing to a reduction in cervical cancer incidence nationwide.

CHAPTER 3

METHODOLOGY

RESEARCH QUESTION

What is the current level of knowledge, attitude, and practice (KAP) regarding cervical cancer and HPV vaccination among college students at IIHMR College?

MATERIALS AND METHOD

The study was conducted at the Indian Institute of Health Management Research (IIHMR), Jaipur, Rajasthan. It was a single-center, cross-sectional, survey-based study involving a total of 119 eligible participants. All participants were fully informed about the purpose and procedures of the study and were provided with detailed explanations of each aspect before participation. Only individuals aged 20 years and above who voluntarily consented and completed the online survey were included in the study. Out of the 119 participants approached, 78 completed the survey and were considered as responders, while 41 did not respond and were excluded from the final analysis.

The primary objective was to assess the knowledge, attitude, and practice (KAP) regarding cervical cancer prevention through HPV vaccination among science-related postgraduate students. A structured KAP questionnaire was utilized as the study tool to evaluate the participants' awareness, perceptions, and behaviors related to cervical cancer and the HPV vaccine.

RESEARCH HYPOTHESIS

Null Hypothesis (H_0): There is no significant association between students' demographic characteristics and their knowledge, attitude, and practice regarding cervical cancer and HPV vaccination.

Alternative Hypothesis (H_1): There is a significant association between students' demographic characteristics and their knowledge, attitude, and practice regarding cervical cancer and HPV vaccination.

STUDY DESIGN: Descriptive cross-sectional study

STUDY PLACE: Indian Institute of Health Management Research (IIHMR), Jaipur, Rajasthan.

STUDY POPULATION: College students enrolled at IIHMR during the study period. The total target population included 119 students. Out of these, 78 participants completed the survey and were included in the study as responders, while 41 were non-responders and excluded from the final analysis.

QUESTION VALIDATION: The questionnaire was validated for face and content validity by Dr. Ashok Peepliwal and Dr. Shalini Mukherjee.

TOOLS: Participant informed Consent Form, Participant demographical details, KAP (Knowledge, Attitude, Practice) Questionnaire

INCLUSIVE CRITERIA:

- Students aged above 20 years
- Currently enrolled at IIHMR College
- Willing to participate and able to provide informed consent.

EXCLUSIVE CRITERIA:

- Individuals who do not meet the age requirement or are not enrolled at IIHMR College
- Those who decline to participate or do not provide informed consent
- Participants who submit incomplete or invalid survey response.

DURATION OF THE STUDY: The study was conducted over a period of three months.

SAMPLING TECHNIQUE: A convenience sampling method was employed to select participants who met the inclusion criteria and were available and willing to participate during the data collection period.

STUDY METHODOLOGY

The study was conducted at the Indian Institute of Health Management Research (IIHMR), Jaipur, following a descriptive cross-sectional design over three months. Out of 119 students invited, 78 completed the online survey and provided valid responses, while 41 did not respond. Convenience sampling was used to select participants who were easily accessible and willing to participate. All participants were informed about the study's purpose and gave written consent before taking part.

Data were collected using a structured questionnaire designed to assess knowledge, attitude, and practice (KAP) regarding cervical cancer and HPV vaccination. The questionnaire was divided into three sections. The knowledge section included 11 questions covering general awareness of cervical cancer, its risk factors, symptoms, and understanding of HPV and its vaccine. The attitude section consisted of 8

questions focusing on perceptions of vaccine safety, importance, risk perception, and societal or training influences. The practice section contained 6 questions related to preventive behaviors, including recommending and promoting HPV vaccination.

The questionnaire was administered online, and prior to participation, students were briefed on the study's objectives, with confidentiality assured. Participants were informed of their right to withdraw at any time. Ethical standards were strictly maintained, ensuring anonymity and secure handling of all collected data.

STATISTICAL ANALYSIS

The data were first compiled and analyzed using Microsoft Excel to calculate the percentages (%) of responses for each variable. Subsequently, the data were imported into the Statistical Package for the Social Sciences (SPSS), Version 29.0, for descriptive statistical analysis. This included the computation of frequencies, percentages, means, and standard deviations to summarize the socio-demographic characteristics and the Knowledge, Attitude, and Practice (KAP) variables related to cervical cancer and HPV vaccination.

CHAPTER 4

RESULTS

RESULT

1. Age Distribution of Respondents

Which age group do you belong to?	NO.	%
20-22 years	12	15.4%
23-25 years	53	67.9%
26 years and above	13	16.7%
Total no.	**78**	**100%**

Table:1

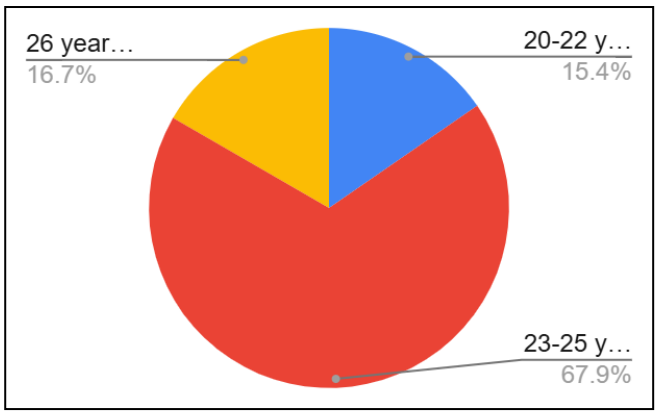

Fig:1

Interpretation

Out of the 78 participants, the majority (53 individuals or 67.9%) were aged between 23 and 25 years. A smaller portion, 12 participants (15.4%), were in the 20 to 22 years age group, while 13 participants (16.7%) were 26 years or older. This shows that most respondents were young adults, mainly in their early to mid-twenties.

2. Gender Distribution of Participants

How would you best identify your gender?	NO.	%
Male	30	38.5%
Female	48	61.5%
Total no.	**78**	**100%**

Table 2

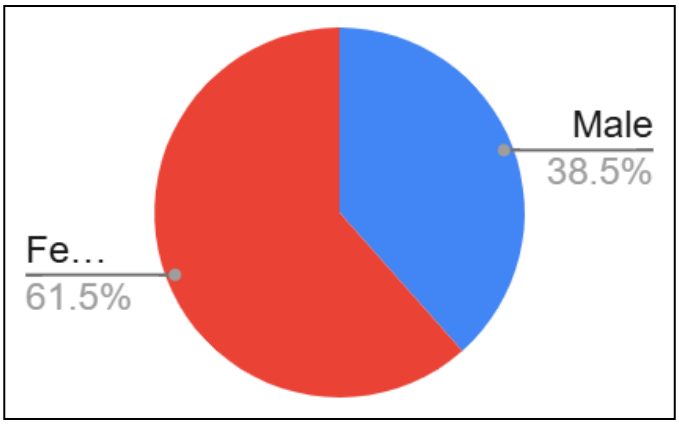

Fig 2

Interpretation

Out of the 78 participants, 48 (61.5%) identified as female, while 30 (38.5%) identified as male. This indicates that the majority of respondents were female.

3. Marital Status of Participants

What is your marital status?	NO.	%
Married	6	7.7%
Unmarried	72	92.3%
Total no.	**78**	**100%**

Table 3

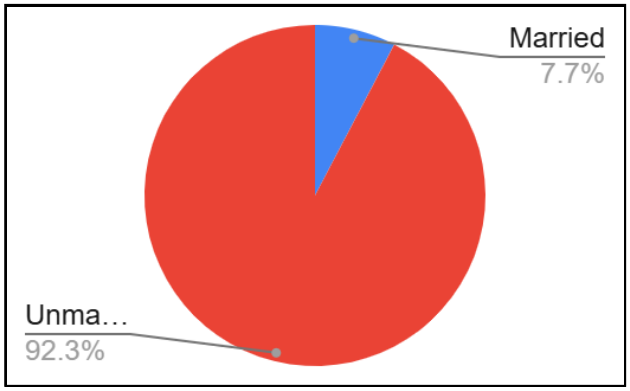

Fig 3

Interpretation

Out of 78 participants, a large majority (92.3%) were unmarried, while only a small portion (7.7%) were married.

KNOWLEDGE

4. Knowledge of Affected Organ in Cervical Cancer

Are you aware of cervical cancer?	NO.	%
YES	73	93.6%
NO	5	6.4%
Total no.	**78**	**100%**

Table 4

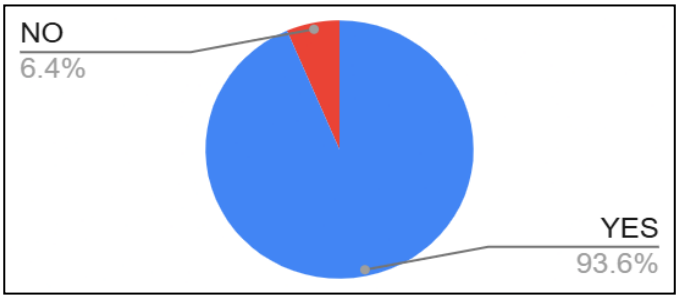

Fig 4

Interpretation

A majority of the participants (76.5%, or 59 out of 78) were aware that cervical cancer affects the cervix. However, a few participants had misconceptions—9 (11.5%) believed it affects the cervical ribs, 6 (7.7%) thought it affects the uterus, and 4 (5.1%) incorrectly selected the neck. This indicates that while most respondents had correct knowledge, a small group still lacks accurate understanding.

5. Awareness of Cervical Cancer Prevalence

Do you agree that cervical cancer is one of the most common cancers among Indian women?	NO.	%
YES	73	93.6%
NO	5	6.4%
Total no.	**78**	**100%**

Table 5

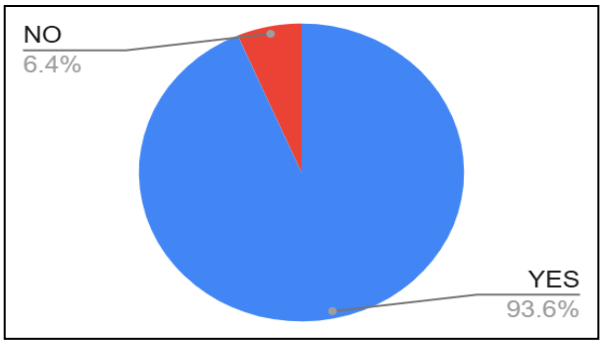

Fig 5

Interpretation

To assess the students' perception regarding the prevalence of cervical cancer among Indian women, respondents were asked whether they agree that cervical cancer is one of the most common cancers affecting this population. A large majority—93.6% (n = 73)—agreed with the statement, while only 6.4% (n = 5) disagreed.

This indicates a high level of awareness not only of the disease itself but also of its significant public health impact in India. The alignment between knowledge and attitude in this area is promising, as it reflects a good foundational understanding that can be leveraged for effective health education and vaccination campaigns.

6. Awareness of HPV Vaccine Availability

Are you aware that vaccines are available to protect against HPV infection?	NO.	%
YES	64	82.1%
NO	14	17.9%
Total no.	**78**	**100%**

Table 6

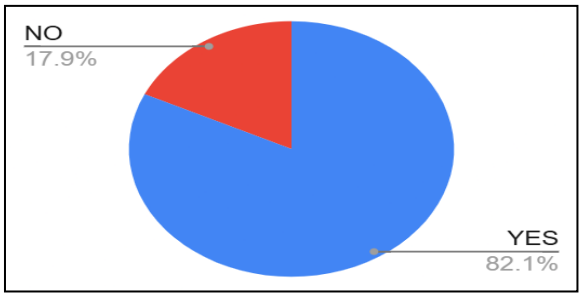

Fig 6

Interpretation

Among the 78 participants, 64 (82.1%) reported being aware that vaccines are available to protect against HPV infection, while 14 (17.9%) were not aware. This suggests a generally good level of awareness, though a knowledge gap still exists among some respondents.

7. Perception of HPV Vaccination as Cervical Cancer Prevention

Can cervical cancer be prevented through vaccination against HPV?	NO.	%
Strongly agree	20	25.6%
Agree	36	46.2%
Neither agree nor disagree	19	24.4%
Disagree	2	2.6%
Strongly disagree	1	1.2%
Total no.	**78**	**100%**

Table 7

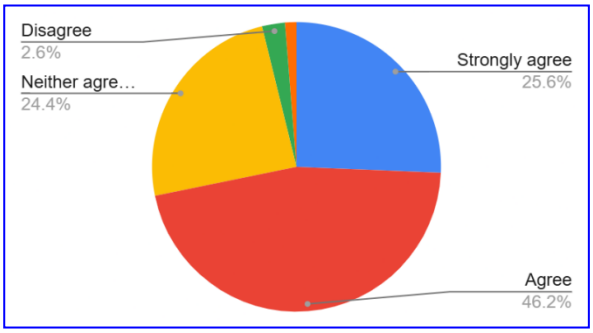

Fig 7

Interpretation

Participants were asked whether they believe cervical cancer can be prevented through vaccination against HPV. A combined 71.8% (n = 56) either strongly agreed (25.6%) or agreed (46.2%), indicating that a substantial majority of students understand the preventive role of HPV vaccines.

However, 24.4% (n = 19) were uncertain, selecting "neither agree nor disagree", and a small portion—2.6% (n = 2) and 1.2% (n = 1)—disagreed or strongly disagreed, respectively.

8. Knowledge of the Primary Cause of Cervical Cancer

What is the primary cause of cervical cancer?	NO.	%
Airborne transmission	6	7.7%
Skin-to-skin contact	8	10.3%
Sexual contact	56	71.8%
Blood transfusion	**8**	**10.3%**
Total no.	**78**	**100%**

Table 8

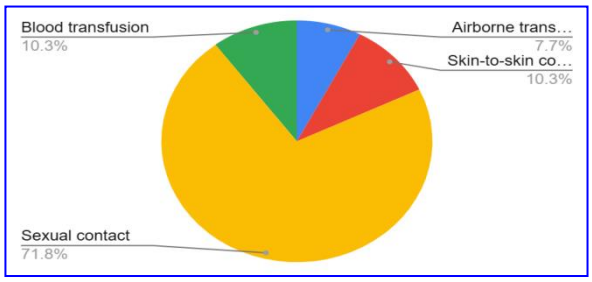

Fig 8

Interpretation

Among 78 participants, 56 (71.8%) correctly identified sexual contact as the primary cause of cervical cancer. However, some participants incorrectly believed that airborne transmission (7.7%), skin-to-skin contact (10.3%), or blood transfusion (10.3%) were causes, indicating some misconceptions remain.

9. Awareness of Cervical Cancer Symptoms

What are the symptoms of cervical cancer? (Select all that apply)	Frequency
Inter-menstrual bleeding	45
Post-coital bleeding	43
Post-menopausal bleeding	35
Foul-smelling vaginal discharge	53
Poor menstrual hygiene	**39**

Table 9

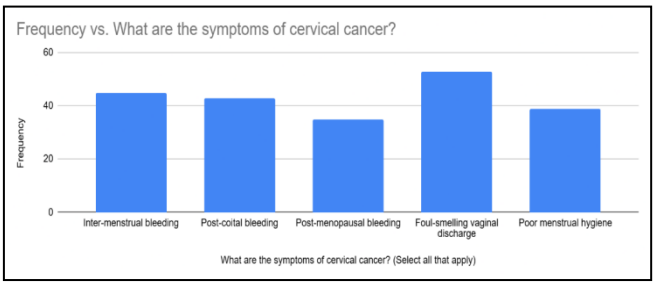

Fig 9

Interpretation

Among the symptoms listed, foul-smelling vaginal discharge was the most frequently recognized symptom (53 participants), followed by inter-menstrual bleeding (45), post-coital bleeding (43), poor menstrual hygiene (39), and post-menopausal bleeding (35). This suggests varied awareness of cervical cancer symptoms, with some confusion regarding symptoms like poor menstrual hygiene.

10. Awareness of HPV Vaccination for Boys

Can the HPV vaccine be given to boys?	NO.	%
YES	53	67.9%
NO	25	32.1%
Total no.	**78**	**100%**

Table 10

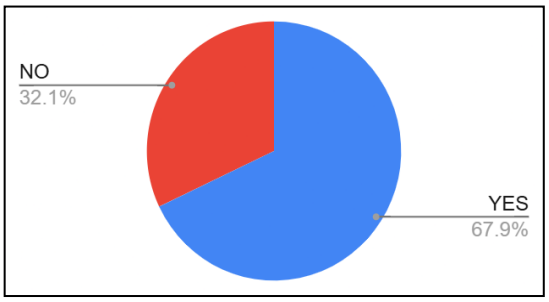

Fig 10

Interpretation

Out of 78 participants, 53 (67.9%) correctly knew that the HPV vaccine can be given to boys, while 25 (32.1%) were unaware or disagreed. This indicates moderate awareness regarding HPV vaccination for males.

11. Knowledge of HPV Vaccination Target Group

Who should receive the HPV vaccination?	NO.	%
Adolescent girls	21	26.9.%
Adolescent boys	0	0.0%
Both adolescent boys and girls	48	61.5%
Sexually active females	9	11.5%
Total no.	**78**	**100%**

Table 11

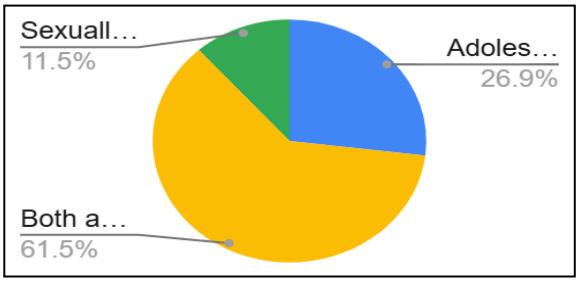

Fig 11

Interpretation

Out of 78 participants, the majority (48, 61.5%) correctly identified that both adolescent boys and girls should receive the HPV vaccination. Some participants (26.9%) believed only adolescent girls should be vaccinated, while a smaller number (11.5%) thought sexually active females should receive it. No participants selected adolescent boys only.

12. Awareness of Cervical Cancer Screening Methods

What are the different cervical cancer screening techniques? (Select all that apply)	frequency
Pap smear	76
VIA/VILI	18
HPV DNA testing	43
Co-testing (Pap smear + HPV DNA)	40

Table 12

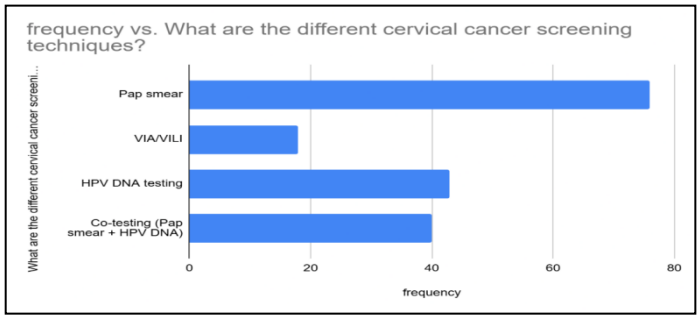

Fig 12

Interpretation

Respondents were asked to identify the different screening methods for cervical cancer, with the option to select multiple answers. The vast majority, 76 out of 78 respondents, correctly identified the Pap smear as a screening technique. Other screening methods were less frequently recognized: HPV DNA testing was selected by 43 students, Co-testing (Pap smear + HPV DNA testing) by 40, and Visual Inspection with Acetic Acid or Lugol's Iodine (VIA/VILI) by 18 respondents. This data suggests that while most students are well aware of the traditional Pap smear test, awareness of other important and complementary screening techniques such as HPV DNA testing and co-testing is moderate. The relatively low recognition of VIA/VILI indicates a knowledge gap regarding alternative screening approaches, which are particularly relevant in low-resource settings.

13. Awareness of Recommended HPV Vaccination Age

What is the recommended age for receiving the HPV vaccine?	NO.	%
9-14 years for the first dose	30	38.5%
15-18 years for the first dose	15	19.2%
19-26 years for the first dose	10	12.8%
I don't know	23	29.5%
Total no.	**78**	**100%**

Table 13

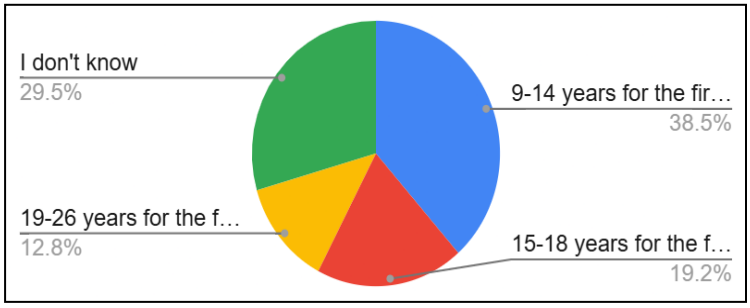

Fig 13

Interpretation

When asked about the recommended age for receiving the first dose of the HPV vaccine, only 38.5% (n = 30) correctly identified the target age group of 9-14 years. A smaller proportion, 19.2% (n = 15), selected 15-18 years, and 12.8% (n = 10) chose 19-26 years, which are outside the ideal early vaccination window. Notably, nearly 30% (n = 23) of respondents reported that they did not know the recommended age.

These findings indicate a significant knowledge gap concerning the optimal timing for HPV vaccination. Since vaccination is most effective when administered before the onset of sexual activity—typically recommended between 9 and 14 years—lack of awareness about this critical information may reduce vaccine uptake and limit preventive benefits.

ATTITUDE

14. Perceptions of HPV Vaccine Safety

Do you believe the HPV vaccine is safe?	NO.	%
Yes, it's very safe	46	59.0%
Yes, but I have some concerns	16	20.5%
No, I don't think it's safe	4	5.1%
I'm not sure	12	15.4%
Total no.	**78**	**100%**

Table 14

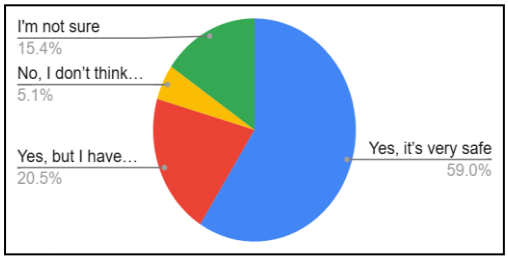

Fig 14

Interpretation

Out of 78 participants, the majority (46; 59.0%) believed that the HPV vaccine is very safe, while 16 (20.5%) agreed it is safe but had some concerns. A smaller portion were unsure (12; 15.4%) or did not believe the vaccine is safe (4; 5.1%).

These results suggest a generally positive attitude toward the HPV vaccine's safety among college students. However, the presence of concerns and uncertainty among over one-third of respondents points to the need for targeted communication efforts. Addressing vaccine hesitancy through clear, evidence-based information on safety and side effects could help build greater trust and increase vaccine acceptance.

15. Perceived Importance of HPV Vaccination

How important do you think the HPV vaccine is in preventing cervical cancer?	NO.	%
It's essential	53	67.9%
I'm not sure	8	10.3%
it's helpful but not crucial	15	19.2%
It's not necessary	2	2.6%
Total no.	**78**	**100%**

Table 15

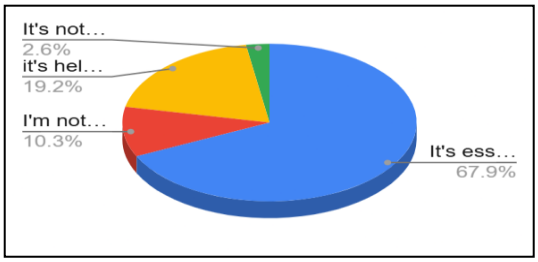

Fig 15

Interpretation

Among 78 participants, the majority (53; 67.9%) considered the HPV vaccine essential in preventing cervical cancer. 15 participants (19.2%) believed it is helpful but not crucial, while 8 (10.3%) were unsure, and 2 (2.6%) thought it was not necessary. These findings indicate that most college students recognize the critical role of the HPV vaccine in cervical cancer prevention, reflecting a positive attitude toward vaccination. However, the uncertainty and doubts among nearly one-third of respondents suggest that further education and awareness campaigns are needed to reinforce the vaccine's importance and encourage its uptake.

16. <u>Need for Information Before HPV Vaccination</u>

Do you need more information before deciding to take the HPV vaccine?	NO.	%
I trust medical recommendations without needing further details	4	5.3%
I trust my family members to make safe decision for me	6	7.9%
No, i already have enough information	7	9.2%
Yes, i need to understand all risks and benefits	59	77.6%
Total no.	**78**	**100%**

Table 16

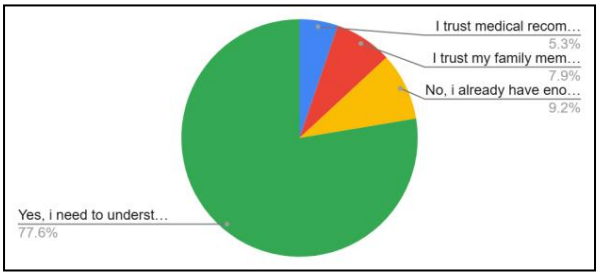

Fig 16

<u>Interpretation</u>

Out of 78 participants, the majority (59; 77.6%) expressed a need to understand all risks and benefits before deciding to take the HPV vaccine. A few stated they already had enough information (7; 9.2%), trusted family decisions (6; 7.9%), or followed medical recommendations without needing further details (4; 5.3%).

These results highlight a prevalent desire for comprehensive knowledge among college students regarding HPV vaccination. This underscores the importance of clear, accessible, and detailed educational materials addressing vaccine efficacy, safety, risks, and benefits to support informed decision-making and enhance vaccine uptake.

17. Cost as a Barrier to HPV Vaccine Uptake

Do you feel the cost of the HPV vaccine is a major barrier to its uptake?	No.	%
Neutral	10	12.8%
No, not at all	2	2.6%
Not really	3	3.8%
Yes, definitely	43	55.1%
Somewhat	20	25.6%
Total	**78**	**100%**

Table 17

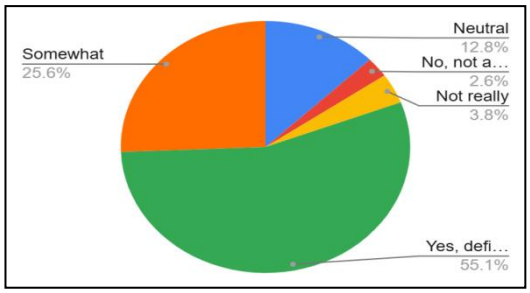

Fig 17

Interpretation

More than half of the respondents, 55.1% (n = 43), definitely feel that the cost of the HPV vaccine is a major barrier to its uptake. An additional 25.6% (n = 20) somewhat agree with this view. In contrast, only a small fraction disagreed: 12.8% (n = 10) remained neutral, 2.6% (n = 2) said cost is not a barrier at all, and 3.8% (n = 3) responded with "not really."

These findings indicate that the financial cost is perceived as a significant obstacle to vaccination among a majority of college students. This highlights the need for policymakers and health programs to consider strategies such as subsidizing the vaccine, providing it at low or no cost, or including it in public immunization programs to increase accessibility and uptake.

18. Perceptions of Sexual Behavior and HPV Risk

What is your attitude towards the risk of HPV infection based on sexual partnerships?	No.	%
Having homosexual partner's increases the risk	7	9.0%
Having multiple partners increases the risk	46	59.0%
Having single heterosexual partner increases the risk	2	2.6%
I don't think sexual partnerships affect the risk	4	5.0%
I'm not sure	19	24.4%
Total	**78**	**100%**

Table 18

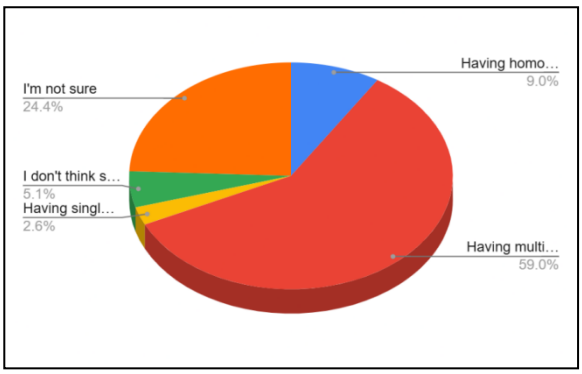

FIg 18

Interpretation

Among 78 participants, the majority (46; 59.0%) believed that having multiple sexual partners increases the risk of HPV infection. A smaller proportion attributed risk to homosexual partners (7; 9.0%), or a single heterosexual partner (2; 2.6%). Some participants either did not believe sexual partnerships affect HPV risk (4; 5.0%) or were unsure (19; 24.4%). These results indicate a generally good awareness among students about the increased risk posed by multiple sexual partners, aligning with established epidemiological evidence. However, the misconceptions and uncertainty observed in nearly one-third of respondents reflect a need for more comprehensive sexual health education, focusing on accurate transmission risks and reducing stigma related to sexual orientation.

19. Routine Cervical Cancer Screening

Do you think cervical cancer screening should be a routine part of women's healthcare?	No.	%
Age- dependent	9	11.5%
I'm not sure	8	10.3%
No	2	2.6%
Yes	59	75.6%
Total	**78**	**100%**

Table 19

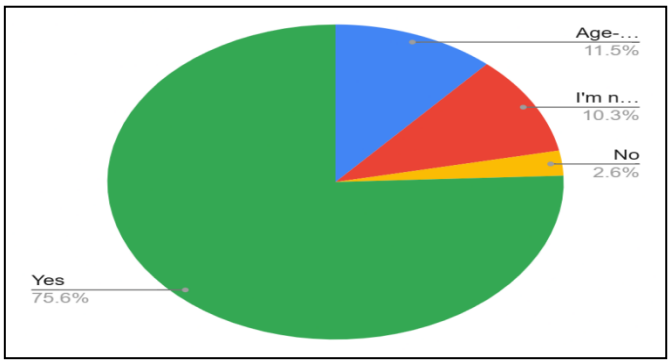

Fig 19

Interpretation

A substantial majority of respondents, 75.6% (n = 59), believe that cervical cancer screening should be a routine part of women's healthcare. Meanwhile, 11.5% (n = 9) felt that screening should be age-dependent, 10.3% (n = 8) were unsure, and a small minority of 2.6% (n = 2) disagreed with routine screening.

This strong positive attitude toward routine cervical cancer screening highlights awareness among college students of its importance for early detection and prevention. The responses also indicate some uncertainty or conditional views among a minority, which underscores the need for ongoing education regarding screening guidelines and the benefits of regular screening for women's health.

20. Symptom-Independent Screening

All women should undergo cervical cancer screening irrespective of symptoms.	No.	%
Agree	25	32.1%
Disagree	1	1.3%
Neither agree nor disagree	20	25.6%
Strongly agree	32	41.0%
Total	**78**	**100%**

Table 20

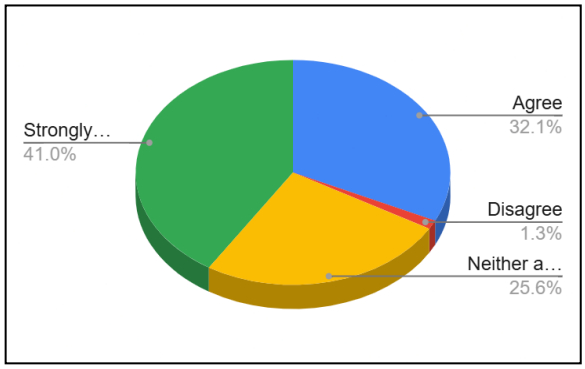

Fig 20

Interpretation

Regarding the statement that all women should undergo cervical cancer screening irrespective of symptoms, a combined 73.1% of respondents expressed agreement, with 41.0% (n = 32) strongly agreeing and 32.1% (n = 25) agreeing. Meanwhile, 25.6% (n = 20) were neutral, and only 1.3% (n = 1) disagreed.

These findings reflect a predominantly positive attitude toward proactive screening among the study participants. The strong consensus supports the importance of regular cervical cancer screening as a preventive measure, even in the absence of symptoms, which aligns with global screening recommendations to detect pre-cancerous changes early.

The neutral stance by a quarter of respondents indicates some hesitation or lack of clarity, suggesting an opportunity for further education to reinforce the importance of routine screening for all women.

21. HPV Vaccine Education Settings

Education on the HPV vaccine should be implemented at college.	No.	%
Yes, college is a good place to provide information	24	30.8%
No, it should be introduced earlier in schools	12	15.4%
Education should be available at all levels, including the workplace	42	53.8%
Total	**78**	**100%**

Table 21

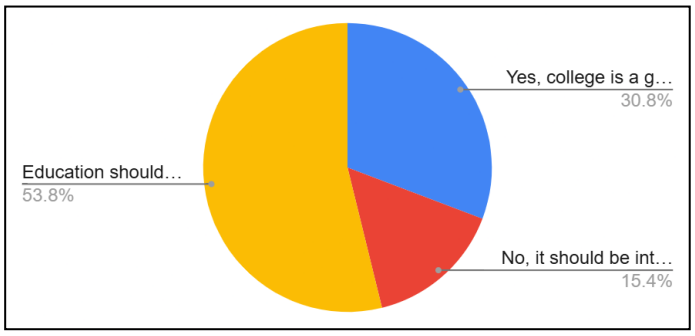

Fig 21

Interpretation

When asked about the ideal setting for HPV vaccine education, more than half of the respondents, 53.8% (n = 42), believe that education should be available at all levels, including the workplace, reflecting a view that HPV awareness is important across the lifespan and in various environments. Additionally, 30.8% (n = 24) felt that college is a good place to provide information about the HPV vaccine, while 15.4% (n = 12) suggested that education should be introduced earlier, in schools.

These results indicate strong support for comprehensive, multi-level HPV vaccine education, highlighting the recognition among college students of the importance of awareness not only during higher education but throughout different stages of life and professional settings. This supports the need for integrated educational programs spanning schools, colleges, and workplaces to improve knowledge and vaccine uptake.

PRACTICE

22. Screening Uptake

Have you undergone cervical cancer screening?	No.	%
Yes	11	14.1%
No	58	74.4%
I don't think it's relevant for me	9	11.5%
Total	**78**	**100%**

Table 22

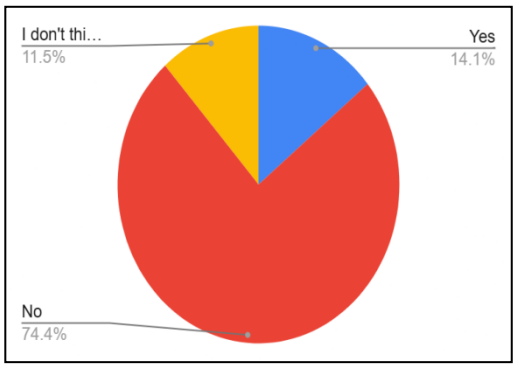

Fig 22

Interpretation

Only 14.1% (n = 11) of respondents reported that they have undergone cervical cancer screening, while a large majority, 74.4% (n = 58), have not been screened. Additionally, 11.5% (n = 9) felt that screening is not relevant for them.

These findings reveal a low rate of cervical cancer screening among college students, despite the general awareness and positive attitudes noted earlier. The perception of irrelevance by some participants might stem from a lack of understanding about the appropriate age or risk factors for screening, or due to cultural and personal barriers.

This highlights a critical gap between knowledge/attitude and actual practice, emphasizing the need for increased efforts to promote cervical cancer screening, address misconceptions about its relevance, and improve accessibility to screening services for young women.

23. HPV Vaccination Intentions Among Participants

Would you get vaccinated with the HPV vaccine?	No.	%
I'm not sure	24	34.3%
I'm not sure if i can take the vaccine at my age (mention age factor)	7	10.0%
No, i don't believe i am at risk	19	27.1%
No, i feel at risk and will get vaccinated	20	28.6%
Total	**78**	**100%**

Table 23

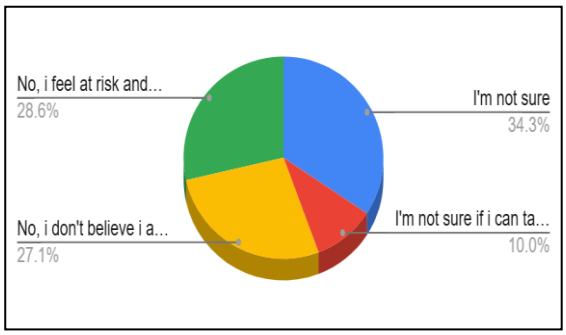

Fig 23

Interpretation

Regarding their willingness to receive the HPV vaccine, only 28.6% (n = 20) of respondents indicated that they feel at risk and would get vaccinated. A notable proportion expressed hesitation or uncertainty: 34.3% (n = 24) were unsure about getting vaccinated, and 10.0% (n = 7) were unsure if they could receive the vaccine due to their age. Additionally, 27.1% (n = 19) did not believe they were at risk and therefore were reluctant to get vaccinated.

These results reflect a moderate level of vaccine acceptance but also significant uncertainty and misconceptions, particularly related to age eligibility and perceived personal risk. This underscores the need for targeted educational interventions to clarify age guidelines, emphasize risk factors, and promote the benefits of timely HPV vaccination.

24. Vaccine Recommendation Confidence

I would recommend the HPV vaccine to friends and family.	No.	%
Yes, definitely – I actively encourage my loved ones to get vaccinated	25	32.0%
Maybe – I would recommend it, but only if they seek more information	7	9.0%
No – I do not feel confident enough to recommend it	46	59.0%
Total	**78**	**100%**

Table 24

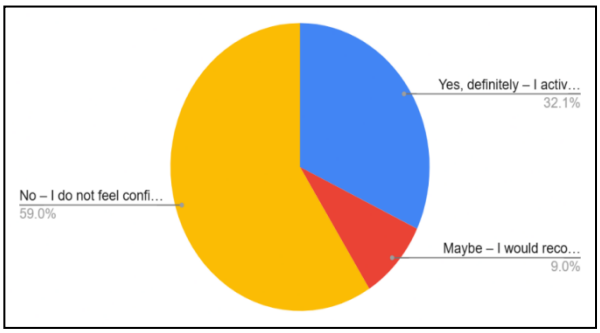

Fig 24

Interpretation

Only 32.0% (n = 25) of respondents reported that they definitely recommend and actively encourage their friends and family to get vaccinated against HPV. A smaller proportion, 9.0% (n = 7), indicated they might recommend the vaccine, but only if their loved ones seek more information first. The majority, 59.0% (n = 46), do not feel confident enough to recommend the vaccine to others.

These findings reveal a low level of active advocacy for HPV vaccination within personal networks among college students, likely influenced by uncertainty, lack of confidence, or insufficient knowledge about the vaccine's benefits. This suggests the need for increased awareness and empowerment efforts to build trust and confidence in the HPV vaccine, which could ultimately improve community-level vaccine acceptance and uptake.

25. Cost as a Barrier to HPV Vaccination

If the HPV vaccine were available for free or at a lower cost, would you take it?	No.	%
I am undecided and need more information	25	32.1%
No, i would not take it regardless of cost	8	10.3%
I trust my family members to make safe decisions for me	5	6.4%
Yes, cost is a significant factor for me	40	51.3%
Total	**78**	**100%**

Table 25

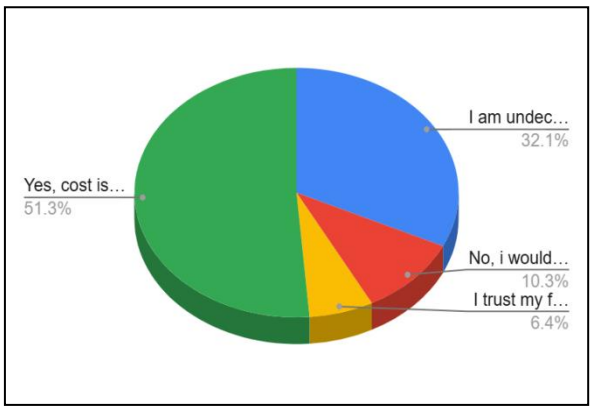

Fig 25

Interpretation

Among 78 participants, 40 (51.3%) stated that cost is a significant factor influencing their decision to take the HPV vaccine. 25 (32.1%) were undecided and expressed the need for more information. A smaller number, 8 (10.3%), would not take the vaccine regardless of cost, while 5 (6.4%) rely on family members to make decisions for them.

These results highlight the importance of reducing financial barriers to improve vaccine uptake. Nonetheless, the sizable proportion of undecided respondents points to the continued need for education and counseling to address doubts and provide clear information on the safety, efficacy, and benefits of the HPV vaccine.

26. Encouragement for Cervical Cancer Screening

Have you encouraged anyone (family/friends) to go for cervical cancer screening?	No.	%
No, but i plan to do so in future	38	48.7%
No, i do not think it is necessary	4	5.1%
Yes, i have actively encouraged others to get screened	36	46.2%
Total	**78**	**100%**

Table 26

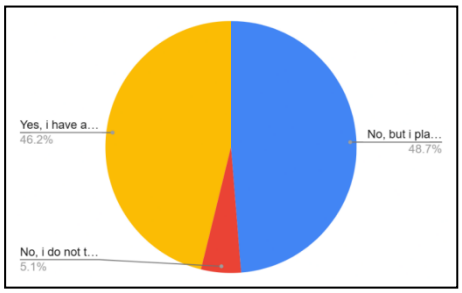

Fig 26

Interpretation

Nearly half of the respondents, 46.2% (n = 36), have actively encouraged family or friends to undergo cervical cancer screening, reflecting a positive practice of promoting preventive health measures within their social circles. Additionally, 48.7% (n = 38) have not yet encouraged others but plan to do so in the future, indicating willingness to advocate for screening with more confidence or information. A small minority, 5.1% (n = 4), do not consider it necessary to encourage others.

These findings suggest that while there is already a significant level of proactive encouragement for screening, there remains an opportunity to convert intention into action through continued education and empowerment, fostering a stronger community-level practice toward cervical cancer prevention.

27. Self-Sampling for Cervical Cancer Screening

If self-sampling for cervical cancer screening were available, would you be more likely to get screened?	No.	%
I am unsure and need more information	12	15.4%
No, i prefer traditional screening at a clinic	14	17.9%
Yes, self-sampling would make screening easier	52	66.7%
Total	**78**	**100%**

Table 27

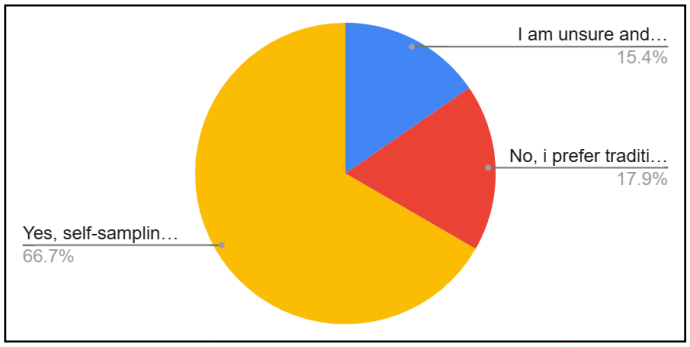

Fig 27

Interpretation

Among 78 participants, 52 (66.7%) expressed that self-sampling would make cervical cancer screening easier and increase their likelihood of getting screened. 14 (17.9%) preferred traditional clinic-based screening, while 12 (15.4%) were unsure and wanted more information.

These findings highlight a strong positive inclination toward self-sampling as a potentially effective strategy to increase screening uptake among college students, by overcoming barriers such as discomfort, privacy concerns, or inconvenience associated with clinic visits. However, the need for further education on self-sampling is evident to address uncertainties and encourage wider acceptance.

CHAPTER 5

DISCUSSION

DISCUSSION

The present study assessed the knowledge, attitude, and practice (KAP) regarding cervical cancer prevention and HPV vaccination among college students. The findings highlight varying levels of awareness and acceptance, with most respondents showing basic knowledge but gaps in specific areas like vaccine safety, age eligibility, and male vaccination. Understanding these trends is crucial for designing effective health education interventions and improving vaccination uptake among youth. The majority of participants were young adults aged between 23 and 25 years, which is typical for studies conducted among college students or young healthcare professionals. This age group is critical for awareness and intervention strategies related to HPV vaccination and cervical cancer prevention, as they are often the target population for vaccination programs and educational campaigns [20, 22].

A higher proportion of females participated in the study, reflecting a common trend in health-related research where women tend to be more engaged in topics related to reproductive health. Since cervical cancer directly affects females, it is encouraging that the majority of respondents were women, as this can positively influence awareness and uptake of preventive measures such as screening and vaccination [21, 23].

Most participants were unmarried, which may impact their perceptions and behaviors regarding sexual health and preventive practices. Unmarried individuals might have different levels of risk perception and attitudes toward HPV vaccination compared to married individuals, potentially influencing their motivation to seek vaccination and screening [24].

The majority of participants correctly identified the cervix as the organ affected in cervical cancer, reflecting a fair level of awareness. However, misconceptions among a significant minority indicate gaps in basic knowledge. Similar findings were reported by Patel et al. [21] and Modi et al. [Modi A et al., 2021], suggesting the need for strengthened educational efforts. Accurate knowledge is essential for promoting HPV vaccination and screening, both of which are crucial for cervical cancer prevention [1,2,10].

A large majority of participants were aware that cervical cancer is a common cancer affecting Indian women. This aligns with global and national data, which show cervical cancer as a leading cause of cancer-related morbidity and mortality in Indian women [4,5]. The World Health Organization and IARC have emphasized the need for improved awareness and preventive measures to combat the high incidence

in low- and middle-income countries like India [2,3,10]. Such awareness is crucial for motivating early screening and vaccination uptake.

The majority of participants were aware of the availability of vaccines to prevent HPV infection, which is encouraging. This finding aligns with studies by Wang et al. [20] and Modi et al. [Modi A et al., 2021], which reported rising awareness levels among young adults. However, the fact that nearly 18% of respondents were unaware highlights the need for intensified health education. Increasing awareness is key to improving HPV vaccine uptake, which is critical in reducing cervical cancer burden [1,2,5].

Over half of the participants agreed that HPV vaccination can prevent cervical cancer, reflecting a fairly good understanding of its preventive role. This aligns with scientific evidence showing that HPV vaccines are highly effective in preventing infections from high-risk HPV types that cause cervical cancer [9,1,5]. However, the sizable neutral group (24.4%) suggests lingering doubts or lack of information. Studies such as those by Mehta et al. [13] and Perlman et al. [24] highlight that awareness and confidence in the vaccine remain barriers to broader acceptance.

Most participants were aware that cervical cancer is primarily caused by HPV, which is transmitted through sexual contact, consistent with findings from Bosch et al. [1] and Schiffman et al. [6]. Nonetheless, misconceptions regarding other modes of transmission highlight the need for clearer health education. Similar gaps in knowledge were reported by Wang et al. [20] and Patel et al. [21], emphasizing ongoing challenges in educating the public about HPV transmission.

Participants demonstrated good recognition of common cervical cancer symptoms such as abnormal bleeding and vaginal discharge, which aligns with clinical presentations described in literature [6, 18]. However, the identification of poor menstrual hygiene as a symptom indicates some misunderstanding, as it is a risk factor but not a symptom. Similar findings were noted in studies by Mehta et al. [13], highlighting the need to clarify symptom versus risk factors in educational programs.

A majority recognized that HPV vaccination is recommended for boys, reflecting growing awareness of its role in preventing HPV-related diseases beyond cervical cancer, such as genital warts and certain cancers in males [8,18]. However, the significant proportion unaware of this suggests the need for wider educational efforts. Similar gaps have been reported in studies like Bruni et al. [7], emphasizing the importance of gender-neutral vaccination programs to enhance herd immunity.

Most participants showed good awareness that HPV vaccination is recommended for both adolescent boys and girls, consistent with current public health guidelines [8,7]. However, a significant minority still believes only girls or sexually active females should be vaccinated, reflecting some misconceptions. Similar patterns of knowledge gaps have been reported in previous studies [20,21], indicating the need to promote gender-neutral vaccination to maximize protection against HPV-related diseases.

Most participants identified Pap smear as the primary screening tool, which is consistent with its widespread use and recommendation in cervical cancer screening programs worldwide [6,9]. Awareness of HPV DNA testing and co-testing methods also reflects knowledge of more advanced and sensitive techniques. However, fewer respondents recognized VIA/VILI, a cost-effective visual screening method commonly used in low-resource settings [10]. Similar trends were reported in studies by Ladner et al. [14], indicating the need to improve awareness of all available screening options to optimize early detection.

Less than half of the participants correctly identified the ideal age for HPV vaccination, which is 9–14 years, as per WHO and national immunization guidelines [2,8]. The high percentage of uncertain or incorrect responses highlights gaps in knowledge that could delay timely immunization. Studies by Patel et al. [21] and Wang et al. [20] also observed limited awareness among young adults and students, emphasizing the need for targeted education on vaccination timelines for effective prevention.

Most participants had confidence in the safety of the HPV vaccine, aligning with global evidence that confirms its strong safety profile [8,18]. However, the presence of concerns or uncertainty among a notable fraction reflects ongoing misconceptions or lack of proper education. Similar hesitancy has been documented in other studies [13,20], underscoring the need for clear communication and awareness campaigns to address doubts and build trust in vaccination programs.

A strong majority recognized the HPV vaccine as essential for cervical cancer prevention, which reflects good awareness of its preventive benefits [1,5,6]. However, a notable portion still undervalues or questions its necessity. This suggests a gap in comprehensive understanding, as highlighted in previous studies [20,23], where limited knowledge and misinformation influenced vaccine perception. Public health education should emphasize the vaccine’s critical role in reducing cervical cancer incidence and mortality.

The findings indicate that while there is general awareness of HPV vaccination, a significant number of participants still feel the need for detailed information to make informed decisions. This aligns with previous studies by Wang et al. [20] and Dodd et al. [23], which reported that vaccine uptake is closely

linked to individuals' understanding of both risks and benefits. Enhancing public education and transparent communication from healthcare providers can play a crucial role in improving vaccine confidence and acceptance.

The data suggests that cost is a significant obstacle to HPV vaccination for many participants, with over 80% viewing it as at least a partial barrier. Similar concerns have been highlighted in studies from low- and middle-income countries, where affordability affects vaccine accessibility [13,14,24]. Ensuring free or subsidized vaccination through government programs can help improve uptake, especially among underserved populations, as emphasized by WHO and IARC in their cervical cancer elimination initiatives [2,3].

Most participants correctly recognized that having multiple sexual partners increases the risk of HPV infection, consistent with epidemiological evidence linking sexual behavior to HPV transmission [1,6,20]. However, the presence of uncertainty or misconceptions in a considerable portion of respondents highlights gaps in sexual health education. As observed in prior studies [21,23], addressing these gaps through awareness programs is essential for encouraging preventive behaviors and informed vaccination decisions.

The findings demonstrate a strong consensus supporting routine cervical cancer screening, in alignment with WHO guidelines and global health recommendations [2,3,10]. Regular screening methods like Pap smears and HPV DNA testing significantly reduce morbidity and mortality by enabling early detection and treatment [6,9]. The responses reflect increasing awareness, but ongoing education is essential to address hesitation or lack of clarity observed in a minority of participants [22].

The results suggest that most participants acknowledge the importance of routine cervical cancer screening even in the absence of symptoms, which is critical for early detection. This aligns with global guidelines that advocate for regular screening starting from early adulthood, irrespective of symptom presentation [2,6,9]. The high level of agreement indicates growing awareness, though the neutral responses highlight the need for further education on the asymptomatic nature of early-stage cervical cancer [5,21].

The data highlights that most participants recognize the value of multi-level HPV vaccine education, from schools to workplaces. This comprehensive approach is supported by literature, which emphasizes that early and continuous awareness is crucial to improving HPV vaccine uptake and dispelling myths

[13,20,21]. Introducing education at school age allows for timely vaccination, while reinforcement in college and the workplace ensures informed decision-making across all age groups [14,23].

The low percentage of participants who have undergone screening reflects a concerning gap between awareness and practice, which is commonly reported in similar studies from low- and middle-income countries [6,12,24]. Barriers such as lack of perceived relevance, fear, stigma, and limited access often hinder screening uptake [13,21]. These findings highlight the urgent need for targeted education and accessibility initiatives to improve screening rates, especially among high-risk groups and asymptomatic individuals [9,22].

The data indicates mixed attitudes toward HPV vaccination. A significant portion is unsure or hesitant, partly due to age-related concerns or perceived low risk, reflecting common barriers documented in prior studies [20,23]. These perceptions highlight the importance of targeted education on the recommended vaccination age and risk awareness, as recommended by WHO and CDC guidelines [2,8,18]. Addressing misconceptions and clarifying eligibility could improve vaccine uptake in this population [14,24].

The findings reveal a gap in confidence among participants to actively promote HPV vaccination, despite awareness of its benefits [2,5]. This hesitancy may stem from insufficient knowledge, concerns about vaccine safety, or lack of trust, which aligns with barriers reported in other studies [13,20,23]. Strengthening educational efforts and addressing misconceptions are essential to empower individuals as advocates for vaccination, thereby improving community acceptance and coverage [8,18].

The data highlights cost as a major barrier to HPV vaccine uptake, consistent with findings from other low- and middle-income countries where vaccine affordability limits access [13,14]. Even with vaccine availability, addressing financial constraints through subsidized programs or free vaccination initiatives is crucial to improve coverage [10,16]. Additionally, the substantial proportion of undecided individuals underscores the ongoing need for education on vaccine benefits and safety to aid informed decision-making [2,18,20].

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The findings indicate a positive attitude toward promoting cervical cancer screening within social circles, with almost half actively encouraging it. The large number planning to encourage in the future suggests growing awareness and willingness to advocate preventive health measures [20,21]. However, the minority who do not perceive the necessity highlights ongoing gaps in understanding the importance of regular screening [6,13]. Enhancing community education and support can further empower individuals to advocate for timely cervical cancer screening [9,12].

The majority's positive response to self-sampling highlights its potential as an accessible and convenient alternative to clinic-based screening, consistent with findings from recent studies demonstrating improved screening uptake through self-sampling methods [9,24]. Self-sampling can overcome barriers such as privacy concerns, time constraints, and discomfort associated with clinical exams [13]. However, the proportion preferring traditional methods or needing more information indicates the necessity of educational initiatives to build trust and knowledge around self-sampling options [2,6].

CHAPTER 6

CONCULSION

CONCLUSION

The findings of this study reveal that while college students generally possess a foundational understanding of cervical cancer and HPV vaccination, there remain notable gaps in specific areas such as ideal age for vaccination, inclusion of males in vaccination programs, and vaccine safety. Despite a relatively positive attitude towards preventive measures, actual practices—such as undergoing screening or promoting vaccination—remain limited.

The study highlights the importance of targeted health education programs that emphasize not only the risks associated with HPV infection but also the proven benefits of timely vaccination and regular screening. Affordability and lack of comprehensive knowledge emerged as significant barriers to vaccine uptake, underscoring the need for government-supported vaccination campaigns and awareness drives, especially in educational institutions.

Empowering youth with accurate information and facilitating easy access to preventive services are crucial steps toward reducing the burden of cervical cancer. Strengthening both policy-level interventions and grassroots awareness can ensure a more informed and proactive population capable of embracing HPV vaccination and early screening as essential tools for cervical cancer prevention.

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CHAPTER 7

REFERENCES

REFERENCES

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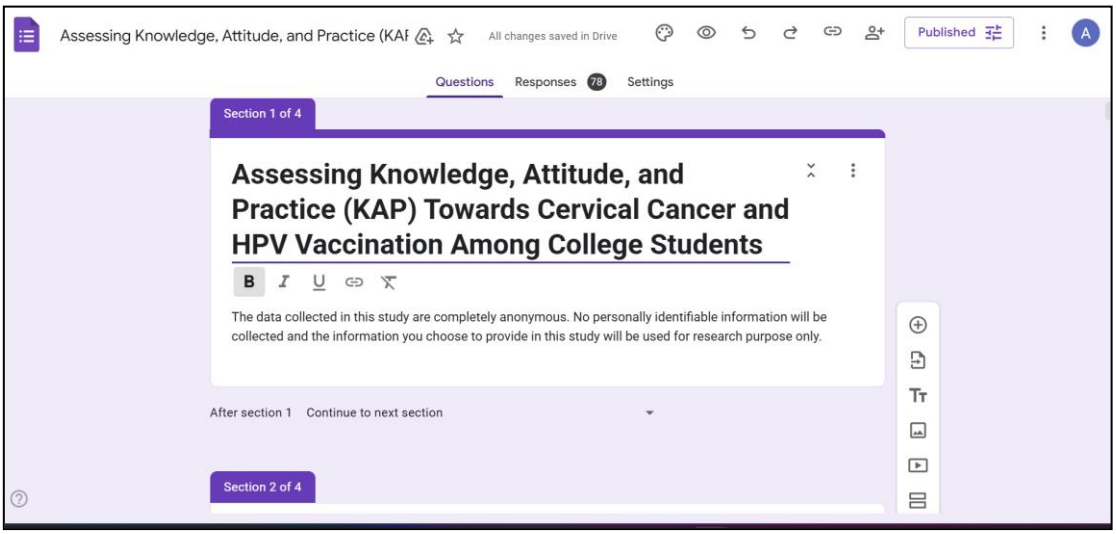
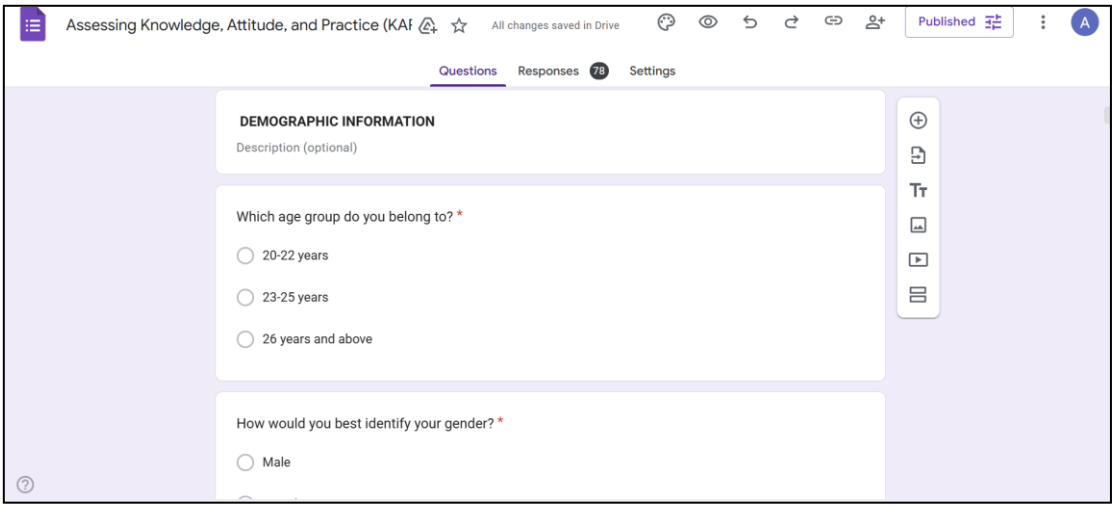
CHAPTER 8

ANNEXURE

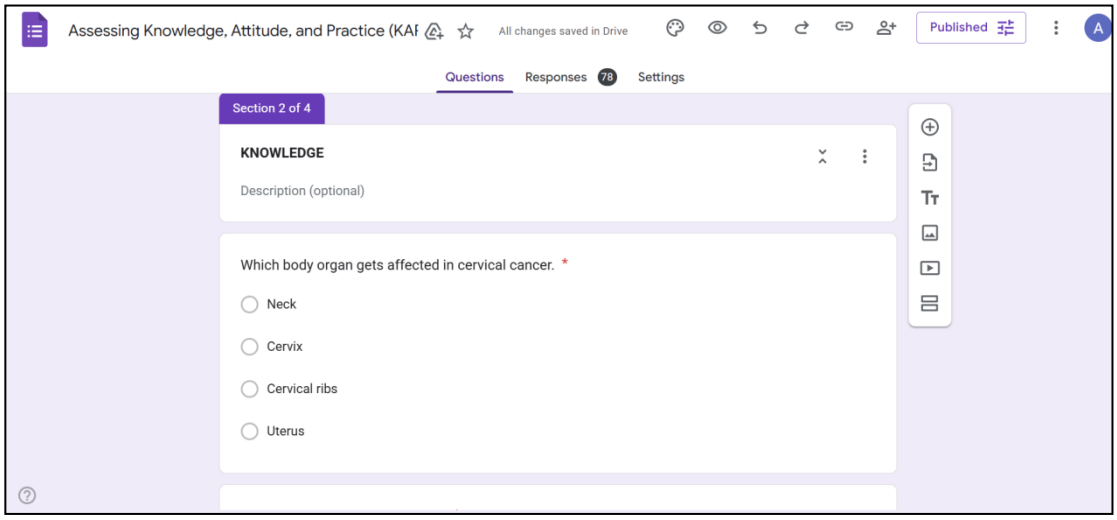
ANNEXURES

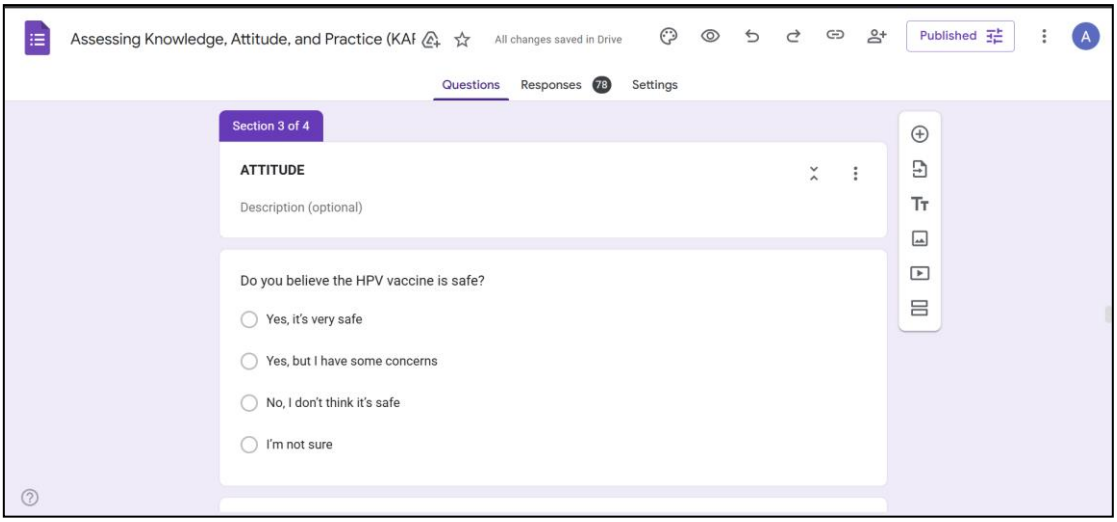
ANNEXURE 1: PARTICIPANT INFORMED &DEMOGRAPHIC INFORMATION





ANNEXURE 2: KAP QUESTIONNAIRE


Assessing Knowledge, Attitude, and Practice (KAI
All changes saved in Drive
Published
A
Questions
Responses 78
Settings
Section 2 of 4
KNOWLEDGE
Description (optional)
Which body organ gets affected in cervical cancer. *
Neck
Cervix
Cervical ribs
Uterus


Assessing Knowledge, Attitude, and Practice (KAI
All changes saved in Drive
Published
A
Questions
Responses 78
Settings
Section 3 of 4
ATTITUDE
Description (optional)
Do you believe the HPV vaccine is safe?
Yes, it's very safe
Yes, but I have some concerns
No, I don't think it's safe
I'm not sure

ANNEXURE 3: EXCEL SHEET DATA