

# Assessing KAP Towards Cervical Cancer and HPV Vaccination Among College Students

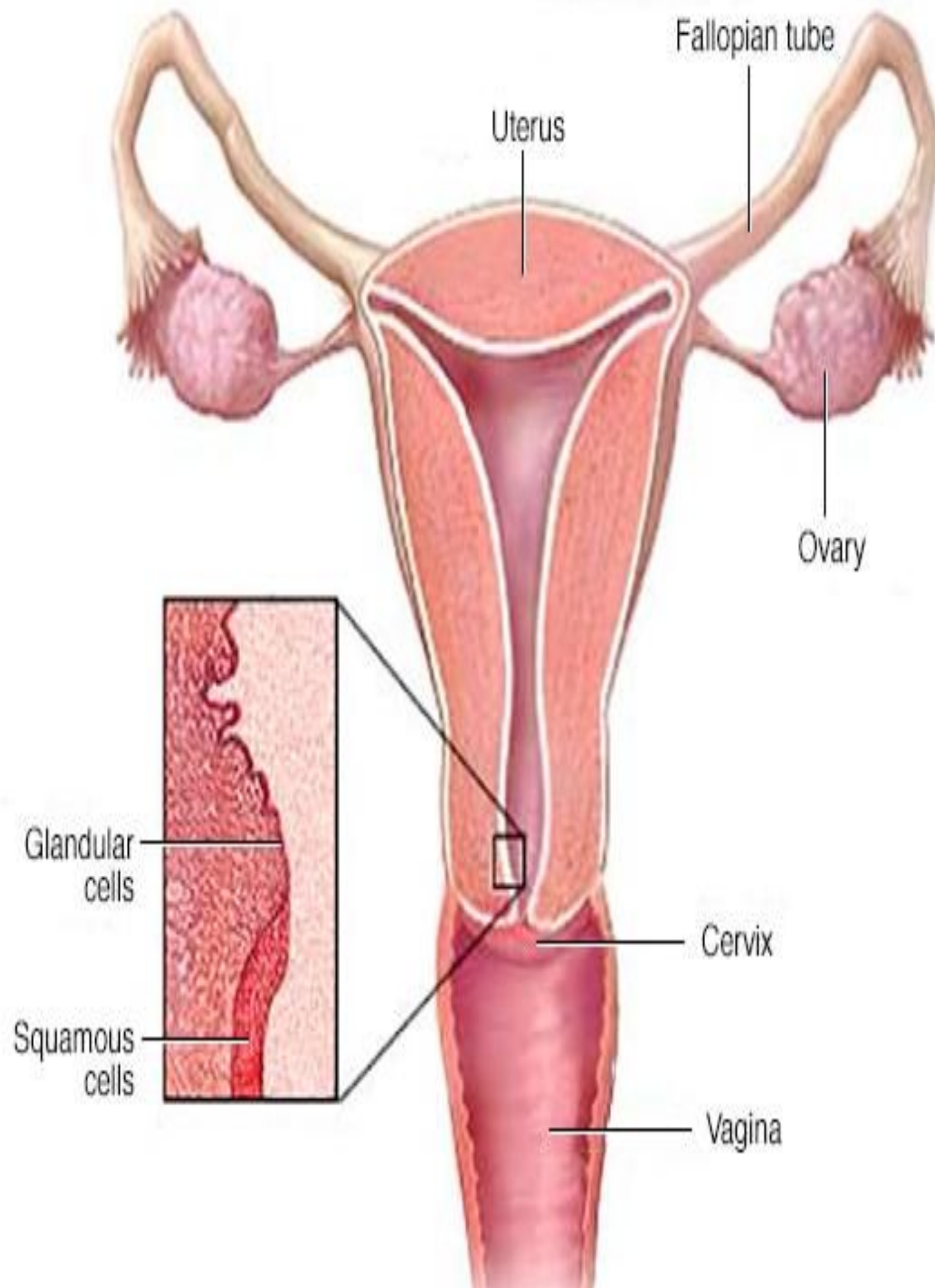


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# Introduction

Human Papillomavirus (HPV) is a prevalent viral infection, consisting of more than 200 genotypes, many of which are linked to cervical cancer, the fourth most common cancer among women worldwide.

Cervical cancer is the second most common cancer in Indian women, resulting in more than 1,23,000 new cases in 2020.

HPV types 16 and 18 (high risk) are responsible for approximately 70% of cervical cancer cases.

The HPV vaccine is an effective and proven method for preventing HPV-related cancers, especially cervical cancer.

Despite its proven efficacy, global vaccination rates remain low, particularly in low- and middle-income countries (LMICs) due to factors such as vaccine affordability, competing healthcare priorities, and limited resources.

# HPV

## HPV: Cause and Prevention



### HPV Infection

HPV is a common reproductive system infection, primarily spread through sexual contact. High-risk types can cause abnormal cervical cell changes, potentially leading to cancer if untreated.



### Vaccine Availability

Effective bivalent, quadrivalent, and nonavalent HPV vaccines significantly prevent cervical cancer globally.



### WHO's Global Strategy

WHO's 2020 strategy aims to eradicate cervical cancer by 2030, targeting 90% HPV vaccination in girls by age 15, 70% screening in women by ages 35 and 45, and 90% treatment for abnormal results.



Every year, more than  
**300 000 women die**  
from cervical cancer



**80%**

of cervical cancer deaths  
occur in low- and middle-  
income countries.

Poor access to prevention,  
screening and treatment  
contributes to **90%** of deaths.

Cervical cancer  
is preventable and treatable,  
if caught early!



Get Informed. Get Screened. Get Vaccinated.

To eliminate cervical cancer, all countries must reach and maintain an **incidence** rate of **below 4** per **100 000 women**.

## VACCINATION

**90%** of girls  
fully  
vaccinated with HPV  
vaccine by age 15

## SCREENING

**70%** of women  
screened  
with a high-performance  
test by age 35 and again  
by age 45

## TREATMENT

**90%** of women  
identified  
with cervical disease  
(pre-cancer or invasive  
cancer) receive  
treatment and care



# Challenges and Solutions in India



## Low Vaccination Rates

In India, HPV vaccination rates are very low (1.5% to 3.5%) due to lack of knowledge, high costs, absence of school programs, and social stigma.

## Cervavac: An Indian Solution

India introduced Cervavac in 2022, an affordable, locally made HPV vaccine by Serum Institute of India, targeting girls aged 9-14 years.

## College Students: A Key Group

School-going students and College students are crucial for prevention efforts as they are in or approaching the recommended vaccination age. Many lack sufficient knowledge about HPV and vaccine safety.



# Understanding KAP Studies



## Knowledge

KAP surveys assess what people know about a health issue, identifying gaps in understanding.



## Attitude

They evaluate how individuals feel about the issue, including beliefs about vaccine safety and effectiveness.



## Practice

KAP studies determine actual behaviours, such as getting screened or vaccinated, to highlight disparities between knowledge/attitude and action.

Well-informed individuals are more likely to get vaccinated and screened, while misinformation hinders preventive steps. Low knowledge and cultural myths are major barriers, common in India. Addressing these requires integrating HPV education into curricula and involving teachers, parents, and doctors.

7,48

20,78

20,48

40,48

30,38

40,48



# Targeting College Students

## Key Demographic

College students, particularly young women, are a crucial demographic for targeted HPV awareness and prevention efforts.

## Awareness Gaps

Studies show low awareness and vaccine uptake among Indian college students, even medical students, despite moderate knowledge levels.

## Male Inclusion

Including male students in HPV education is vital, as HPV can cause other cancers and genital warts in men.





# 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?



# Study Aim & Objectives

1

## Aim

To assess Knowledge, Attitude, and Practice (KAP) towards cervical cancer and HPV vaccination among college students.

2

## Objectives

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





# Material & Methods

## Study Design

Descriptive cross-sectional study.

1

2

## Study Place

IIHMR College.

## Study Population & sample size

College students enrolled at IIHMR during the study period.  
The target students are 119, where 78 are responders and 41 non-responders

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## Inclusion Criteria

Students aged above 20 years, currently enrolled at IIHMR, willing to participate and provide informed consent.

## Exclusion Criteria

Individuals not meeting age/enrollment, those declining participation, or submitting incomplete responses.

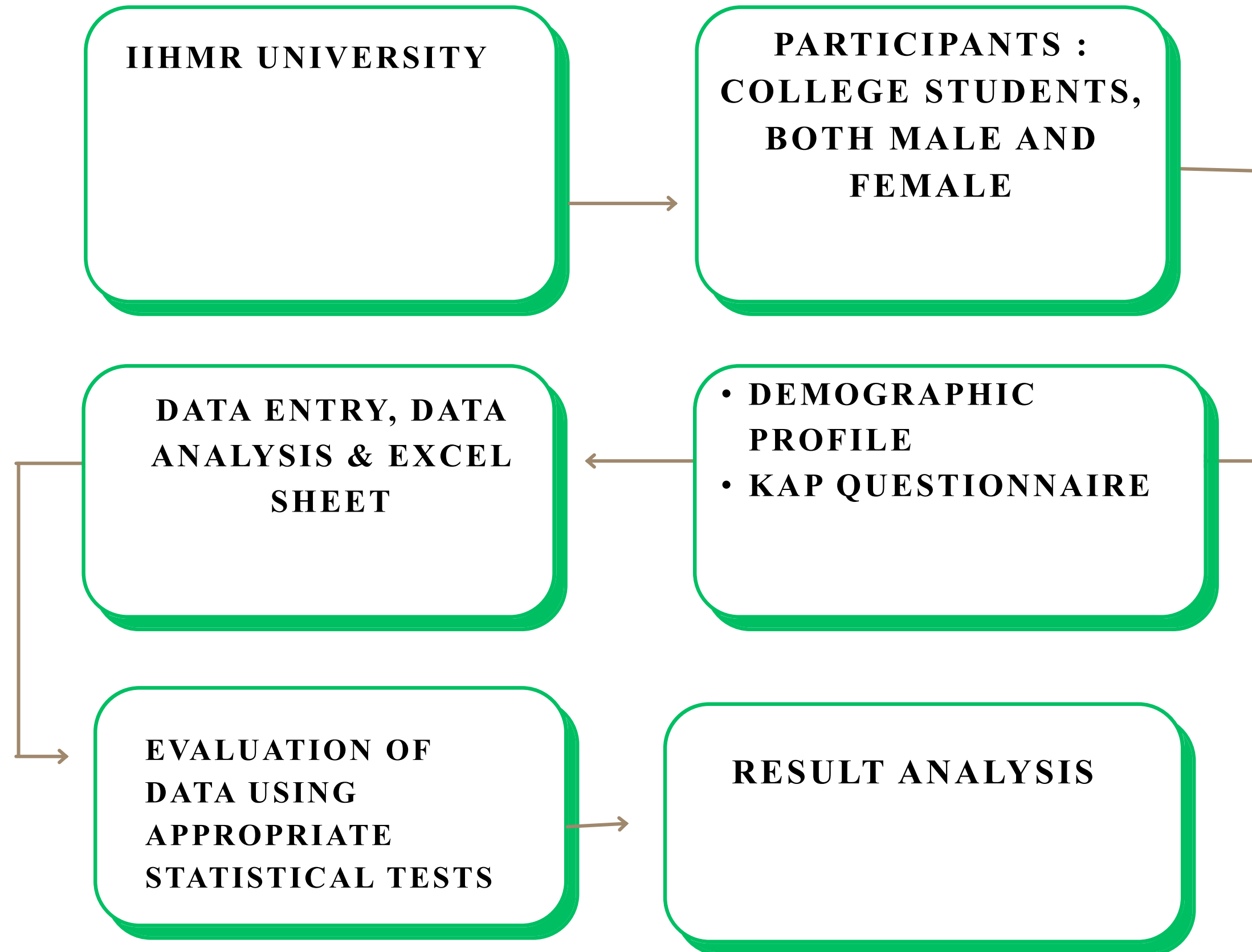
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## Sampling technique and Duration

Convenient sampling, 3 months

# Methodology







# Data Collection and Analysis

## Study Tool

Participant informed Consent Form, Participant demographical details, and a KAP (Knowledge, Attitude, Practice) Questionnaire.

## Data Collection Procedure

Data will be collected through a structured KAP survey questionnaire administered in person or online, with prior briefing and informed consent.

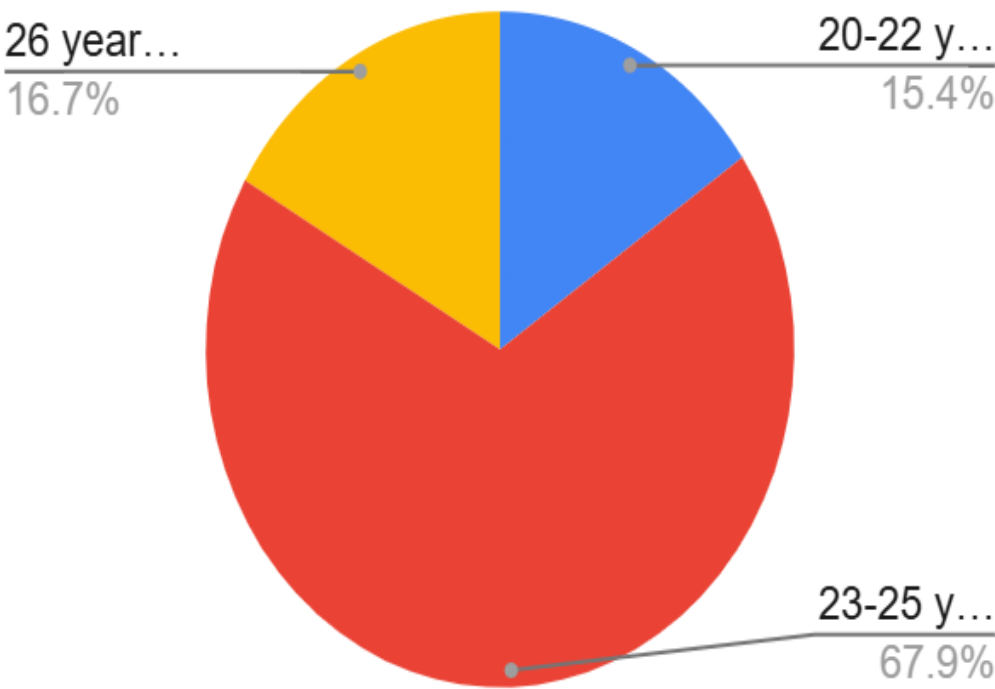
## Data Analysis Plan

Data was compiled in Microsoft Excel and analyzed.

# RESULT AND DISCUSSION

# 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%  |



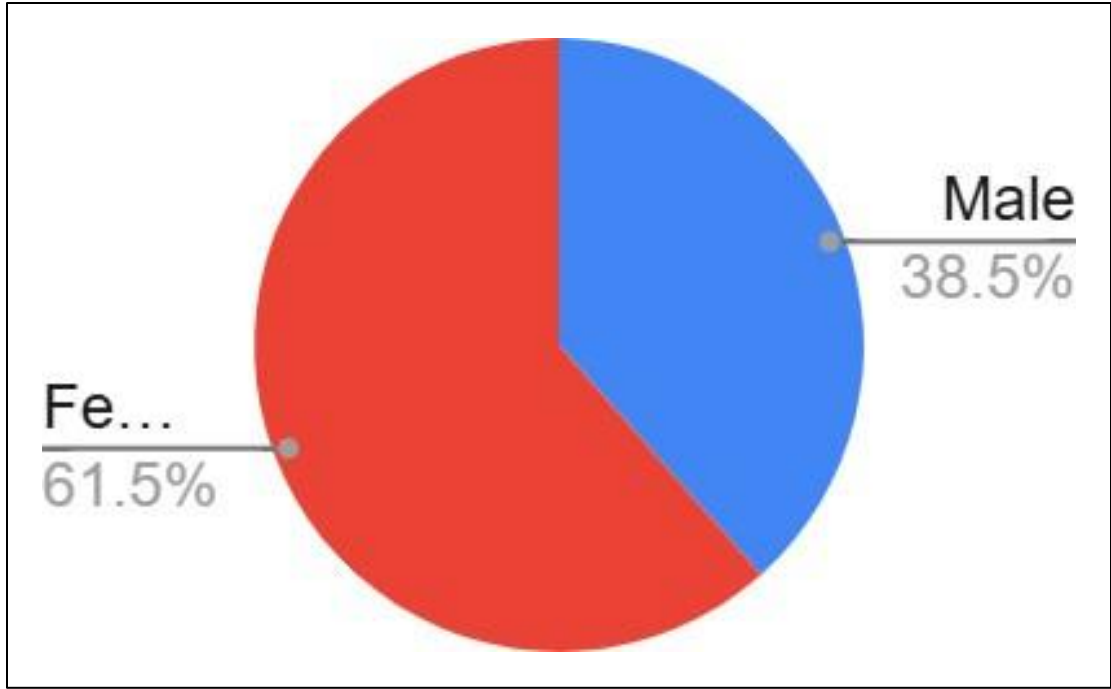
**Interpretation**

Out of the 78 participants, the majority (53 individuals or 67.9%) were between 23 and 25 years old. 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 in their early to mid-twenties.



# GENDER DISTRIBUTION OF PARTICIPANTS

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

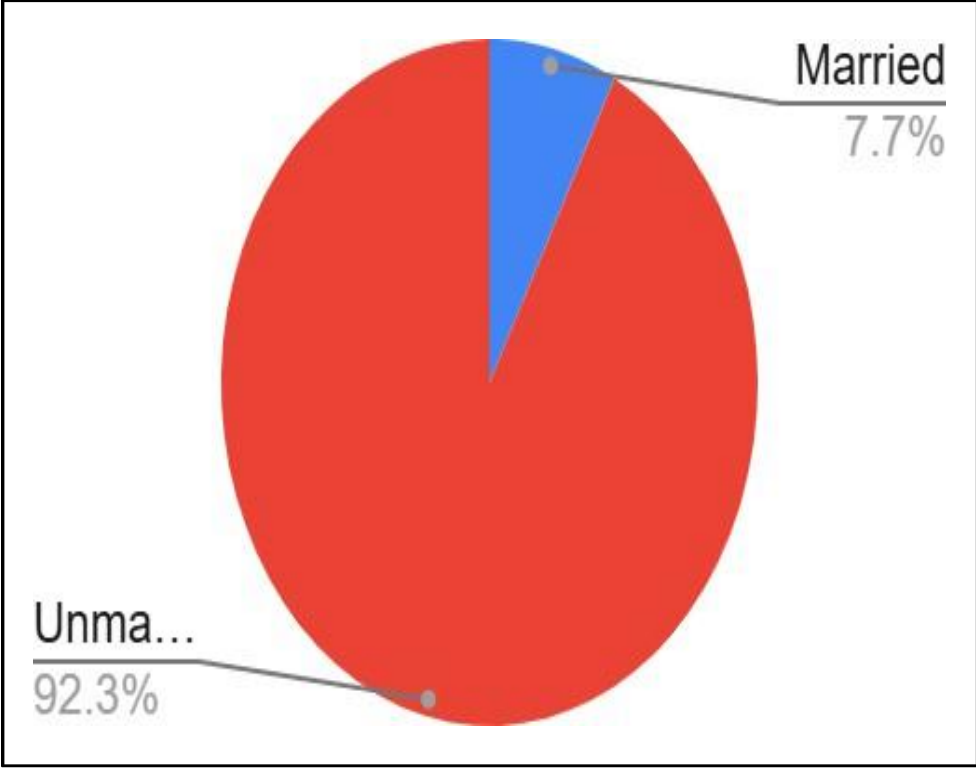


**Interpretation**

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.

# MARITAL STATUS OF PARTICIPANTS

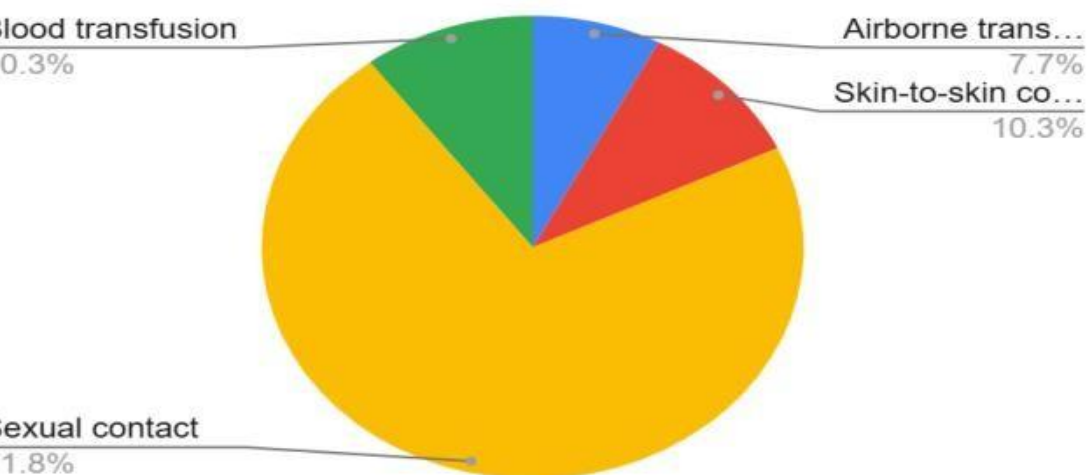
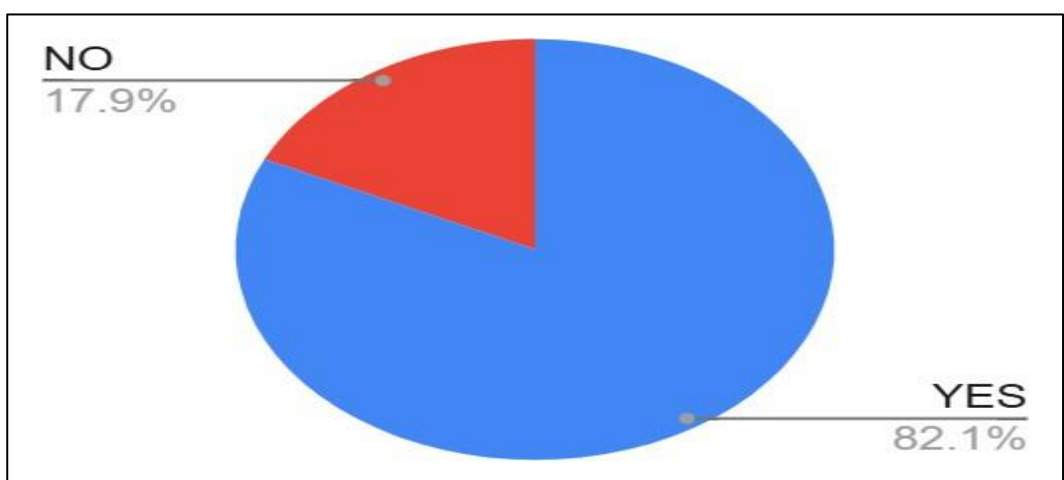
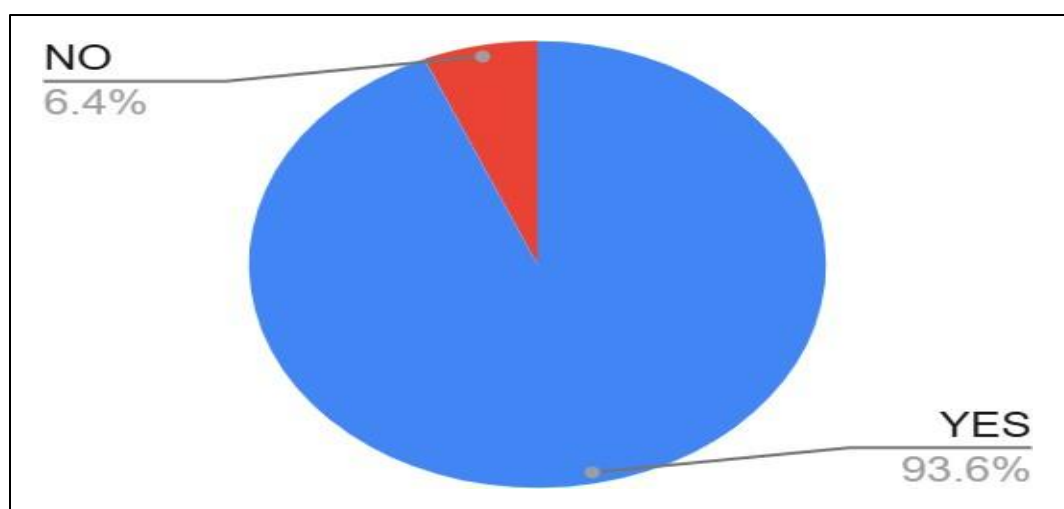
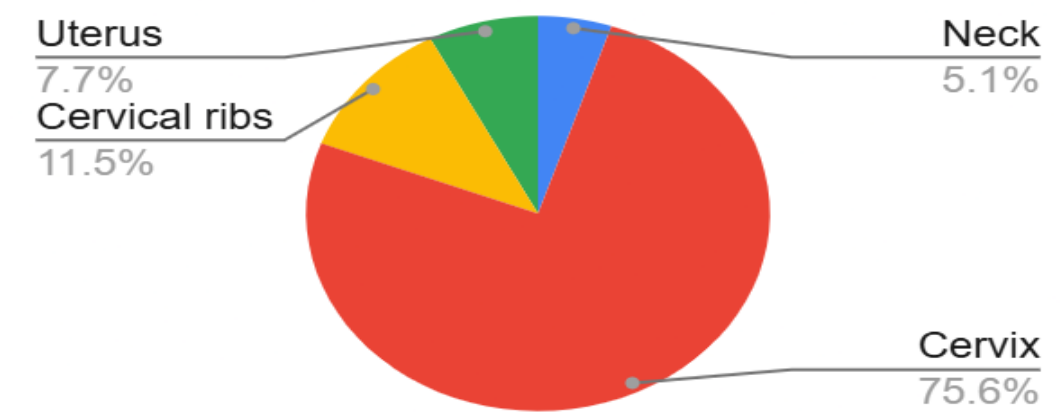
| What is your marital status? | NO. | %     |
|------------------------------|-----|-------|
| Married                      | 6   | 7.7%  |
| Unmarried                    | 72  | 92.3% |
| Total no.                    | 78  | 100%  |



**Interpretation**

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

# Knowledge level of college students about Cervical Cancer and the HPV vaccine



## Affected Organ

75.6% correctly identified the cervix as the affected organ, though some misconceptions existed.



## Prevalence Awareness

93.6% agreed cervical cancer is common in Indian women, showing high awareness of its public health impact.



## Vaccine Availability

82.1% were aware of HPV vaccine availability, but a knowledge gap persists for 17.9%.



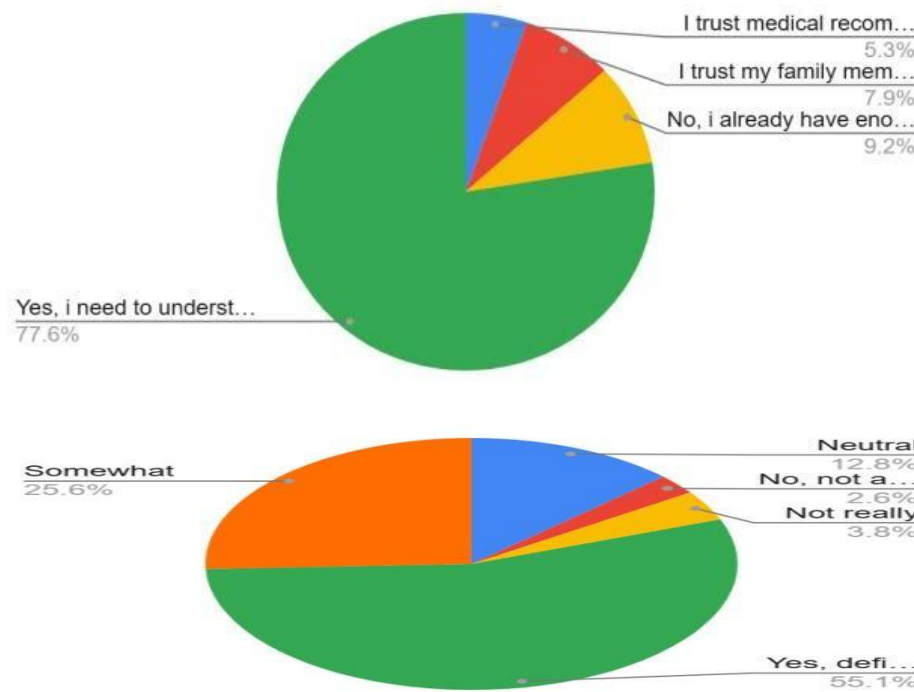
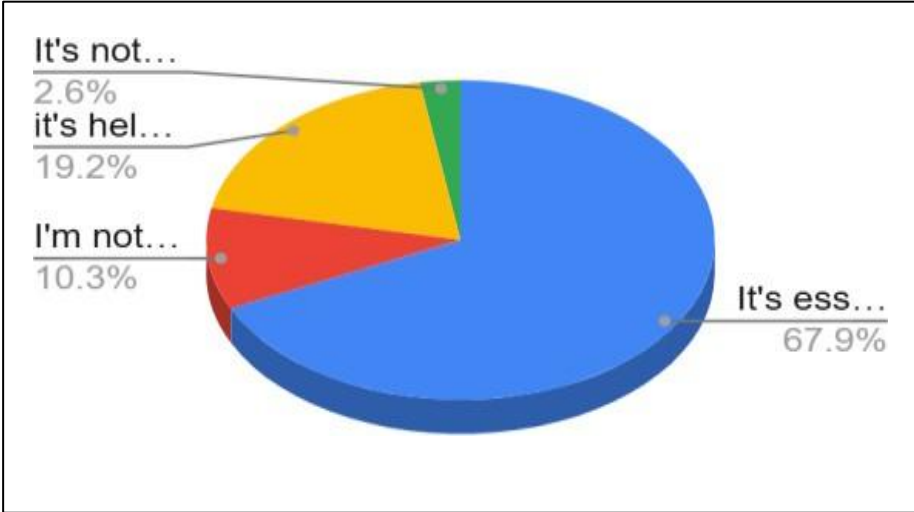
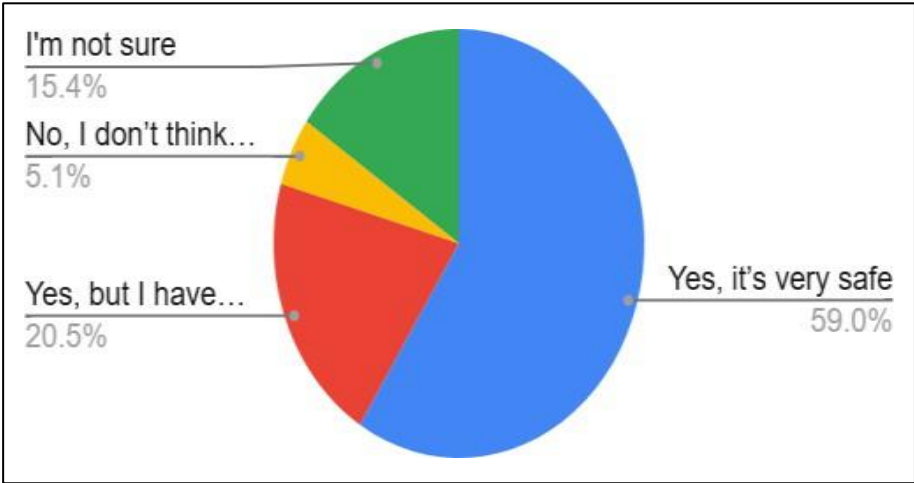
## Primary Cause

71.8% correctly identified sexual contact as the primary cause, though some misconceptions about transmission modes remain.



Most participants correctly identified the **cervix** as the affected organ and were aware that **cervical cancer is common among Indian women**, indicating good general awareness. A large majority also knew about the **availability of the HPV vaccine**, though around 18% were still unaware. While most recognized **HPV as the primary cause**, some held misconceptions about its transmission, pointing to the need for clearer health education.

# Attitude of students towards HPV Vaccination and cervical cancer



## Vaccine Safety

59.0% believed the HPV vaccine is very safe, but 20.5% had concerns, and 15.4% were unsure, highlighting a need for targeted communication.

## Vaccine Importance

67.9% considered the HPV vaccine essential for prevention, yet nearly one-third showed uncertainty, indicating a need for further education.

## Information Needs

77.6% desired comprehensive information on risks and benefits before vaccination, underscoring the importance of accessible educational materials.

## Cost as Barrier

55.1% felt cost is a major barrier, with an additional 25.6% somewhat agreeing, highlighting the need for subsidized programs.

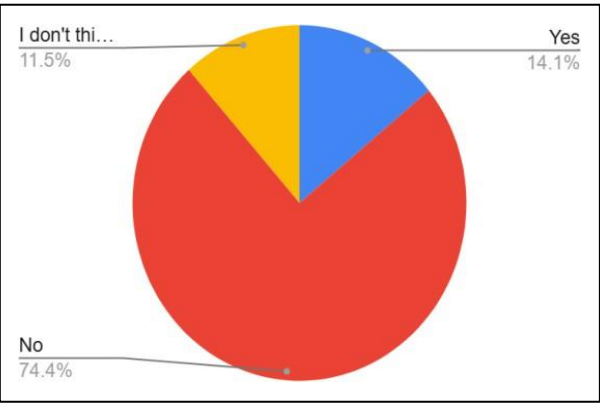
Most participants had a positive attitude toward **HPV vaccination**, recognizing its role in preventing cervical cancer. While many were **confident in the vaccine's safety**, a notable portion remained hesitant, indicating the need for clearer communication. There was a growing acceptance of **vaccinating boys**, though some misconceptions persist. Importantly, many respondents expressed a **need for more information**, highlighting the importance of targeted education to support informed decision-making and improve vaccine uptake.



# Practices Related to Prevention

## Screening Uptake

Only 14.1% had undergone screening, revealing a significant gap between knowledge/attitude, and actual practice.

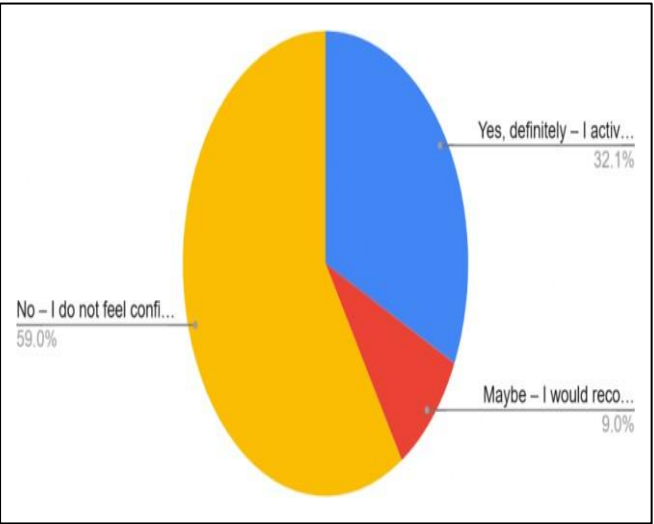
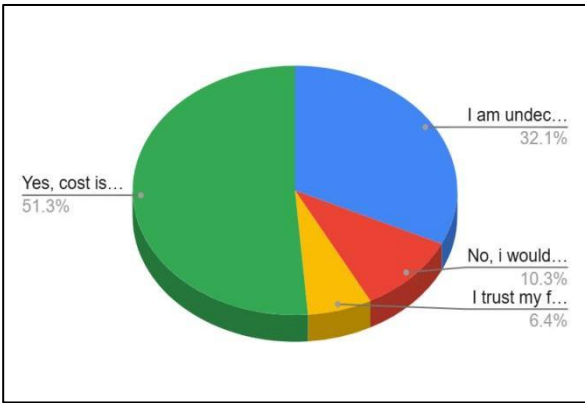


## Vaccination Intentions

Only 28.6% felt at risk and would get vaccinated, with many unsure or perceiving low personal risk.

## Cost Impact

51.3% stated cost is a significant barrier to vaccination, highlighting the need for financial support.



## Vaccine Recommendation

Only 32.1% confidently recommend the HPV vaccine to others, indicating a lack of advocacy.

The study reveals a concerning gap between positive attitudes and actual preventive practices. Low screening uptake and vaccine recommendation confidence, coupled with cost barriers, underscore the need for targeted interventions to translate awareness into action.

Most students showed a positive attitude toward HPV vaccination, recognizing its effectiveness and importance in preventing cervical cancer. However, some were unsure or hesitant, indicating lingering doubts about safety and necessity. Many expressed the need for more information before making decisions, and cost was seen as a major barrier. Overall, while awareness exists, there is a clear need for stronger education, trust-building, and accessibility efforts to improve acceptance and advocacy for HPV vaccination.

# Conclusion

College students generally understand cervical cancer and HPV vaccination, but gaps exist in areas like ideal vaccination age, male vaccination, and vaccine safety. Despite positive attitudes, actual screening and vaccination promotion remain limited.

Targeted health education programs are crucial, emphasizing HPV risks and the benefits of timely vaccination and regular screening. Affordability and lack of comprehensive knowledge are significant barriers, highlighting educational institutions' need for government-supported vaccination campaigns and awareness drives.

Empowering youth with accurate information and facilitating access to preventive services are vital for reducing the cervical cancer burden. Policy interventions and grassroots awareness can foster a proactive population embracing HPV vaccination and early screening.



**THANK YOU**

