



A STUDY TO ASSESS KNOWLEDGE REGARDING CERVICAL CANCER AMONG ANM FINAL YEAR STUDENTS AT UPUMS SAIFAI, ETAWAH

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Abstract: This descriptive research study was undertaken to evaluate the level of knowledge regarding cervical cancer among final-year ANM students. A structured questionnaire was administered to assess their understanding across key domains, including etiology of cervical cancer, risk factors, clinical manifestations, availability and importance of screening tests, HPV vaccination, and preventive strategies. The study sample comprised [50] students selected through [Convenient Random Sampling]. The study concludes that strengthening educational interventions, integrating focused modules on cervical cancer, and enhancing clinical skill development are essential to improving the preparedness of ANM students for effective community health promotion. Improving their knowledge base has the potential to contribute meaningfully to reducing the incidence and mortality associated with cervical cancer in the population.

Index Terms – Assess, Knowledge, Cervical cancer, Descriptive research

I. INTRODUCTION

The global burden of cervical cancer remains significant. According to the World Health Organization (WHO), cervical cancer ranks as the fourth most common cancer among women worldwide. Each year, it is estimated that more than 600,000 new cases are diagnosed, and around 340,000 women die due to complications from the disease. Nearly 90 percent of these deaths occur in developing nations, where preventive and screening programs are either inadequate or inaccessible. Early detection plays a critical role because cervical cancer develops slowly, often over many years, through identifiable pre-cancerous stages. When women are screened regularly, abnormal or pre-cancerous changes can be recognized and treated before progressing to malignancy. Public health interventions including HPV vaccination have been shown to significantly reduce the risk of cervical cancer. The introduction of HPV vaccines such as Cervix has demonstrated strong protective effects. Many countries have implemented vaccination programs for adolescent girls before they become sexually active. In India, HPV vaccination has gradually been introduced in selected states and public health campaigns continue to encourage broader adoption. However,

misconceptions, limited awareness, and cost-related concerns have slowed widespread acceptance. Screening is one of the strongest tools against cervical cancer. A Pap smear detects abnormal changes in cervical cells, and HPV testing identifies high-risk infections. WHO recommends that women aged 30–49 years undergo cervical cancer screening at least once every few years. When screening programs are available and women are motivated to participate, cervical cancer incidence and mortality can be reduced drastically.

2. POPULATION AND SAMPLE

A population is the entire group that you want to draw conclusions about.

All the ANM final year students who were present at the time of study. Sample is the representative unit of target population which is to be worked upon by the researcher during their study. Sample selected for this study is students from ANM final year course. Sampling technique is the strategy used to obtain sample. Convenient random sampling technique is used to allocate the samples. It is the number of individuals, items, or data points selected from a larger population to represent it statistically 50 samples.

3. DATA AND SOURCES OF DATA

Permission to conduct the study was obtained from the Dean of Nursing faculty of UPUMS.

After approval, the questionnaires were distributed in the form google form personally to the respondents. The purpose of the study was clearly explained and the respondents were assured that participation was voluntary and all information would remain confidential. After collection, the completed questionnaires were checked for completeness and accuracy before being tallied and analyzed. After the data were collected through questionnaire descriptive and inferential statistics method will be applied to summarize and interpret the collected data. This plan ensures that the collected data will be analyzed systematically to derive valid and meaningful conclusions aligned with the objectives of the study. Standard Deviation and Percentage is used to describe the variables; Chi Square Test is used to find out the association between the level of knowledge with their selected demographic variables.

3.1 Theoretical framework

The conceptual framework for this study is based on the **Health Belief Model (HBM)**. The model is appropriate because it explains how individual beliefs influence health behaviors, including participation in cervical cancer screening.

Key Components Applied:

- **Perceived Susceptibility:** ANM students' understanding of cervical cancer risk.
- **Perceived Severity:** Awareness of consequences of late detection.
- **Perceived Benefits:** Knowledge of screening and HPV vaccination.
- **Perceived Barriers:** Misconceptions, fear, lack of information.
- **Cues to Action:** Educational programs, clinical exposure.
- **Self-Efficacy:** Confidence in counseling women regarding screening.

The HBM supports the need for strengthening knowledge among ANM students so they can promote preventive behaviors effectively in the community

3.2 RESEARCH METHODOLOGY

A research design is a framework use to outline the overall approach and methods that will be used to collect and analyze data in order to answer research question. In this study descriptive design has been adopted. Plans and the procedures for research. that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. Research adopted in this study is quantitative approach. Characteristics or attributes that can be measured and taken on different values.

1. Demographic variables:-A demographic variable is a characteristic such as age, gender, or race that is often referred to as 'boxcar variables' due to the significant impact they carry. In this study demographic variables are :- age, gender, marital status, place of living, family income , number of females living in their house & number of females who are in their reproductive age group.

2. Research variables:-Research variables are any characteristics that can take on different values.

3.3 STATISTICAL TOOLS AND ECONOMETRIC MODELS

A series of chi-square goodness-of-fit tests were conducted to determine whether the distributions of participants' demographic characteristics differed significantly from an equal expected distribution.

All demographic variables demonstrated **statistically significant deviations from an equal expected distribution**. This means the sample is **not evenly distributed across any of the demographic categories**, suggesting strong tendencies toward certain demographic groups. Such patterns should be considered when interpreting subsequent analyses, as they indicate potential demographic concentration within the sample.

3.4. DESCRIPTIVE STATISTICS

A descriptive research design was used. Data were collected using a structured knowledge questionnaire. Demographic data included age, educational background, residence, family type, information sources, and previous exposure to cervical cancer education.

Key findings include:

- Most students had **average knowledge** regarding cervical cancer.
- A smaller group demonstrated good knowledge.
- Only a few students had poor knowledge.
- There was **no significant association** between most demographic variables and knowledge level.
- Knowledge gaps were common in areas related to HPV, screening intervals, and vaccination.

The results show that although students have basic understanding, they require better training in prevention strategies, screening methods, and community education approaches.

4. RESULTS AND DISCUSSION

4.1 Frequency & Percentage of the demographic variables of ANM students

S.No.	Demographic Variables	Frequency	Percentage
1	AGE-		
	a. 18-22 years	45	90%
	b. 23-27 years	3	6%
	c. 28-30 years	2	4%
	d. Above 30 years	0	0%
2	GENDER-		
	a. Male	0	0%
	b. Female	50	100%
	c. None	0	0%
3	MARITAL STATUS-		
	a. Single	48	96%
	b. Married	2	4%
	c. Divorced	0	0%
	d. Widow	0	0%
4	PLACE OF LIVING-		
	a. Hosteler	15	30%
	b. Day Scholar	2	4%
	c. Village (Saifai or Mainpuri)	33	66%
	d. Town (Etawah)	0	0%
5	FAMILY INCOME-		
	a. <10,000	40	80%
	b. 10,000 – 50,000	10	20%
	c. 50,000 – 1 lakh	0	0%
	d. > 1 Lakh	0	0%
6	NO. OF FEMALES IN REPRODUCTIVE AGE GROUP-	18	36%
	a. 1	1	2%
	b. 2	30	60%
	c. 3	1	2%
	d. More than 3		

4.2 Chi-Square Goodness-of-Fit Tests for Demographic Variables

Variable	χ^2	df	N	P value
Age	111.44	3	50	< .001
Gender	100.01	2	50	< .001
Marital Status	132.87	3	50	< .001
Place of living	55.62	3	50	< .001
Family income	86.00	3	50	< .001
Number of Females in Reproductive Age Group	48.08	3	50	< .001

A series of chi-square goodness-of-fit tests were conducted to determine whether the distributions of participants' demographic characteristics differed significantly from an equal expected distribution.

1. Age

The age distribution differed significantly from an equal distribution, $\chi^2(3, N = 50) = 111.44, p < .001$.

Interpretation: Participants were not evenly distributed across age categories; some age groups were substantially more represented than others.

2. Gender

Gender also showed a significant deviation from equality, $\chi^2(2, N = 50) = 100.01, p < .001$.

Interpretation: One or more gender categories were substantially overrepresented relative to others.

3. Marital Status

There was a significant difference in the distribution of marital status, $\chi^2(3, N = 50) = 132.87, p < .001$.

Interpretation: Participants' marital status categories were unevenly distributed, indicating dominance of one marital status group.

4. Place of Living

The distribution of place of living differed significantly from an equal model, $\chi^2(3, N = 50) = 55.62, p < .001$.

Interpretation: Participants were not equally distributed across places of residence.

5. Family Income

Family income categories were significantly unequal, $\chi^2(3, N = 50) = 86.00, p < .001$.

Interpretation: Some income groups were more common than others.

6. Number of Females in Reproductive Age Group

This variable also showed a significant deviation from equality, $\chi^2(3, N = 50) = 48.08, p < .001$.

Interpretation: The number of reproductive-age females in households varied substantially between categories rather than being evenly distributed.

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