Assessment Of Knowledge and Awareness About Cervical Cancer Among Females in Lucknow, India

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***Abstract*—Cervical cancer remains one of the major public health problems affecting women globally, particularly in developing countries with poorly managed healthcare systems. The disease is largely preventable through early detection and vaccination, yet lack of awareness and low utilization of preventive services continue to contribute to high morbidity and mortality. This study aimed to assess the level of knowledge, awareness, and practices related to cervical cancer among women in Lucknow.**

A community-based cross-sectional study was carried out among 50 female participants aged 18–60 years in Jankipuram, Lucknow. Data were collected through face-to-face interviews using a structured questionnaire and analysed using descriptive statistics (frequency and percentage).

Results showed that while 60% of the participants had heard of cervical cancer, only 42% knew that HPV is the primary cause. Knowledge regarding symptoms was 55% and risk factors 48%, with many women remaining uncertain. Awareness of preventive measures was limited, 46% knew about Pap smear screening and 50% about HPV vaccination. Only 34% had ever undergone screening, and just 24% reported regular screening every three years. Major barriers identified were fear (22%), financial constraints (18%), family hesitation (16%), and lack of awareness (14%). Education and occupation significantly influenced knowledge and participation levels.

The findings highlight the need for targeted health education programs, better access to screening services, and culturally appropriate interventions to reduce the burden of cervical cancer.

***Index Terms*—Cervical cancer, HPV, knowledge, awareness, Pap smear, vaccination, barriers, India**

I. INTRODUCTION

Cervical cancer is one of the most significant public health challenges faced by women worldwide. It ranks as the fourth most common cancer among women, with an estimated 660,000 new cases and 350,000 deaths reported globally in 2020. [12] the burden is especially heavy in low- and middle-income countries, where screening programs are limited and awareness levels remain inadequate. In India, cervical cancer accounts for nearly 18% of all female cancers and is the second most common cancer in women after breast cancer. [3]

Persistent infection with high-risk types of human papillomavirus (HPV) is the main cause of cervical cancer. Although HPV infection is common, timely detection of precancerous lesions and vaccination can effectively prevent progression to cancer. Pap smear screening and HPV vaccination have proven highly effective in reducing incidence and mortality. [45] However, their uptake continues to be low due to poor awareness, cultural barriers, and limited healthcare access.

The World Health Organization (WHO) has launched a global strategy with 90–70–90 targets to eliminate cervical cancer as a public health problem by 2030.[6] Despite this, progress in many regions, including parts of India, has been slow. Previous studies have consistently shown gaps in women's knowledge and awareness, which are strongly influenced by education and occupation. Educated and working women generally demonstrate better understanding and health-seeking behaviour. [78]

This study was conducted in Jankipuram, Lucknow, to evaluate the existing knowledge, awareness, and practices regarding cervical cancer among women and to identify key barriers affecting screening participation.

II. SIGNIFICANCE OF THE STUDY

This research highlights the critical gap between available medical advancements and actual community-level awareness. It provides valuable insights into the social and behavioural factors that determine the success or failure of cervical cancer prevention programs. The findings support global initiatives by WHO, CDC, and UNICEF to eliminate cervical cancer by 2030 and offer locally relevant evidence for policymakers. Importantly, the study underscores the unique challenges faced by women in urban and semi-urban settings and emphasizes the need for targeted, culturally sensitive public health strategies. Ultimately, it contributes to the broader goal of reducing cervical cancer incidence and mortality while promoting equity in women's healthcare.

III. OBJECTIVES OF THE STUDY

1. To assess women's knowledge regarding cervical cancer, its causes, risk factors, and the role of HPV.
2. To evaluate attitudes toward prevention and Pap smear screening.
3. To examine current screening practices and sources of health information.
4. To identify individual, cultural, and systemic barriers to screening participation.
5. To suggest practical recommendations for improving awareness and service utilization in similar settings.

IV. MATERIALS AND METHODS

Study Design

This was a community-based cross-sectional descriptive study.

Study Area

The study was conducted in Jankipuram, Lucknow, Uttar Pradesh, a residential area with residents from diverse socio-economic backgrounds.

Study Population and Sampling

Females aged 18–60 years residing in Jankipuram were included. A total of 50 participants were selected through non-probability convenience sampling.

Inclusion and Exclusion Criteria

Inclusion:

Women aged 18–60 years, permanent residents of Jankipuram, willing to participate, and able to respond to the questionnaire.

Exclusion:

Those unwilling to participate, seriously ill during data collection, or providing incomplete responses.

V. DATA COLLECTION TOOL AND PROCEDURE

A structured, pre-tested questionnaire was used. It covered socio-demographic information, knowledge about cervical cancer, awareness of screening and vaccination, attitudes, and practices. Data were collected through face-to-face interviews after obtaining written informed consent. Privacy and confidentiality were strictly maintained.

Data Analysis

Data were analysed using simple descriptive statistics. i.e., frequencies and percentages. Results are presented in tables.

Ethical Considerations

Informed consent was taken from every participant. Participation was voluntary, and the data were used only for academic purposes. The study was carried out from January to February 2026.

VI. RESULTS

A total of 50 female respondents participated in the study.

Table 1: Knowledge Indicators of Cervical Cancer among Women

Indicator	Yes (%)	No/Not Sure (%)
Heard of cervical cancer	60	40
HPV Knowledge	42	58
Awareness of Symptoms	55	45
Risk Factor Knowledge	48	52
Prevention Awareness	52	48

Table 2: Awareness Indicators of Screening and Vaccination

Indicator	Yes (%)	No (%)
Pap Test Awareness	46	54
HPV Vaccination Awareness	50	50
Screening Ever Done	34	66
Regular Screening (Every 3 years)	24	76

Table 3: Reported Barriers to Cervical Cancer Screening

Barrier Type	Frequency	Percentage
Fear	11	22%
Financial Issues	9	18%
Family Hesitation	8	16%
Lack of Awareness	7	14%
No Barrier Reported	15	30%

Both education and occupation were observed to influence awareness levels, with working and educated women showing better knowledge and higher participation in preventive practices.

VII. DISCUSSION

The present study revealed moderate general awareness but significant gaps in detailed knowledge about cervical cancer. Although 60% of women had heard of the disease, only 42% were aware of HPV as the primary cause, and knowledge of symptoms and risk factors remained limited. These findings are consistent with several earlier studies conducted in India and other developing countries.

Awareness of Pap smear (46%) and HPV vaccination (50%) was moderate; however, actual practice was poor, with only 24% of women reporting regular screening. This clear knowledge-practice gap is a matter of concern. Working women demonstrated better awareness and screening uptake compared to homemakers, suggesting that greater social exposure plays a positive role.

Fear, financial constraints, and family hesitation emerged as the leading barriers, which aligns with existing literature from similar settings. Education and occupation were found to be important determinants of both knowledge and health-seeking behaviour. These results emphasize the importance of community-based education campaigns and making screening services more accessible and affordable, especially for less educated and non-working women.

VIII. CONCLUSION

This study assessed knowledge, awareness, and practices related to cervical cancer among 50 women in Lucknow. While basic awareness exists in the community, detailed understanding of causes, symptoms, risk factors, and preventive measures is still inadequate. Screening uptake remains low despite moderate awareness of Pap smear and HPV vaccination. Education, occupation, fear, financial issues, and family support significantly influence participation.

There is an urgent need for well-planned health education programs, improved access to affordable screening, and efforts to address socio-cultural barriers. Strengthening the public health system through targeted interventions can play a vital role in reducing the burden of cervical cancer among women in resource-limited settings.

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Conflict of Interest:

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