

KNOWLEDGE AND ATTITUDE TOWARDS CERVICAL CANCER PREVENTION AMONG WOMEN VISITING THE GYNECOLOGY OUTPATIENT DEPARTMENT AT PRIVATE TEACHING LAHORE, PAKISTAN

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Abstract

Background: Cervical cancer is the third leading cause of death among women globally, with human papillomavirus (HPV) identified as a major risk factor.

Objectives: This study aimed to assess the knowledge and attitudes of women in Lahore, Pakistan, regarding cervical cancer prevention.

Materials and Methods: A descriptive, hospital-based cross-sectional study was conducted in Lahore from September to December 2023. Data were collected using a structured questionnaire and analyzed through descriptive statistics, including frequencies, means, and percentages.

Results: The study included 100 women, with a mean age of 18 ± 30 years. Awareness of cervical cancer and the Pap test was reported by 81% and 32% of participants, respectively. Most respondents associated cervical cancer with smoking (70.2%), multiple sexual partners (80.8%), and high parity (63.1%). Additionally, prolonged contraceptive use (62.6%), HPV infection (80.9%), and smoking (76.6%) were recognized as key risk factors. Only 35.4% correctly identified the appropriate timing for HPV vaccination as before marriage. Regression analysis indicated that marital status, education, occupation, and family income significantly influenced knowledge and attitudes.

Conclusion: Participants' knowledge and attitudes were shaped by socio-demographic factors. The study underscores the urgent need for national-level health education campaigns, including social media outreach, to raise awareness about cervical cancer prevention and control.

INTRODUCTION

Cervical cancer remains one of the most significant public health challenges affecting women worldwide, particularly in low- and middle-income countries (LMICs). According to the World Health Organization (WHO), cervical cancer is the fourth most frequent cancer among women globally, with an estimated 604,000 new cases and 342,000 deaths in

2020 alone (WHO, 2022). The burden is disproportionately higher in LMICs, where over 90% of cervical cancer-related deaths occur due to limited access to effective screening and treatment services. In Pakistan, cervical cancer ranks as the third most common cancer among women, with approximately 5,233 new cases and 2,876 deaths reported annually

(ICO/IARC, 2021). Despite its preventable nature through HPV vaccination and regular screening, low awareness and poor health-seeking behaviors continue to fuel the disease burden.

Knowledge and awareness regarding the risk factors, symptoms, and preventive measures of cervical cancer are pivotal in reducing its incidence and mortality. Studies conducted in various parts of Pakistan have highlighted a critical gap in women's knowledge and attitudes toward cervical cancer screening and HPV vaccination. A systematic review by Khan et al. (2023) revealed that most Pakistani women, including healthcare workers, had limited understanding of HPV and cervical cancer prevention. Similarly, a study by Kashif et al. (2021) in Punjab reported that only 8.3% of the participants had undergone a Pap smear test, and awareness of HPV vaccination was considerably low. These findings underline the necessity of educational interventions targeting both the general female population and healthcare professionals.

The socio-cultural context of Pakistan also plays a significant role in shaping women's attitudes and practices related to cervical cancer prevention. Factors such as low literacy, social stigma, religious beliefs, and lack of autonomy often discourage women from seeking gynecological care or participating in screening programs (Riaz et al., 2020). Moreover, the absence of organized national screening programs, along with myths and misconceptions about cervical cancer and its risk factors, further limit the uptake of preventive services. In many cases, the disease is diagnosed at an advanced stage, drastically reducing survival rates and increasing healthcare costs (Javaeed et al., 2019).

Addressing these barriers requires a multi-faceted approach that involves improving knowledge, shifting attitudes, and increasing access to preventive healthcare services. Recent international evidence supports the role of community-based education, nurse-led awareness programs, and integration of cervical cancer screening into primary healthcare settings to improve preventive behaviors (Drokow et al., 2020; Shrestha et al., 2023). In Pakistan's context, targeted awareness campaigns and culturally sensitive educational strategies are imperative to promote early detection, reduce stigma, and enhance the adoption of cervical cancer screening and HPV vaccination.

The present study thus aims to assess the current levels of knowledge and attitudes among women visiting a gynecology outpatient department in Lahore to provide evidence for contextually relevant health education interventions.

1. Materials and Methods

A quantitative cross-sectional study was conducted at the University of Lahore Teaching Hospital from September to December 2023 to assess the knowledge and attitudes of women regarding cervical cancer prevention. The target population comprised women aged 18–45 years visiting the gynecology outpatient department. A simple random sampling technique was employed to select a total sample of 100 participants, calculated using the formula $n = N / (1 + N \times e^2)$, with an assumed acceptable margin of error. Eligibility criteria included women within the specified age range who were willing to participate; women already diagnosed with cervical cancer were excluded.

The research tool consisted of a structured, pre-tested questionnaire adapted from Siddig et al. (2023), comprising two sections: demographic characteristics and items assessing knowledge and attitude toward cervical cancer prevention. Knowledge was assessed through 32 dichotomous items (Yes/No), scored on a binary scale (Yes = 2, No = 1), and categorized as poor (<50%), good (50–70%), or excellent (>70%). Similarly, attitude was measured based on participants' responses to Likert-scale items and categorized using the same cutoffs.

The data collection process involved self-administered questionnaires provided in both English and Urdu to facilitate comprehension. Written informed consent was obtained from each participant before enrollment. Ethical approval was secured from the University of Lahore's ethical committee, and participant confidentiality, privacy, and the voluntary nature of participation were strictly upheld. No physical or psychological risks were associated with the study. Collected data were entered and analyzed using SPSS version 25, applying descriptive statistics such as frequencies and percentages to summarize participant demographics, knowledge levels, and attitudes toward cervical cancer prevention.

2. Results

Table 1 Demographic Characteristic of Participants

Variables	Group	Frequency	Percentage (%)
Age	18-30	53	60%%
	31-45	42	34.8%%
	45more	5	4.6%%
Marital status	Single	12	9.7%%
	Married	80	83%
	Divorced	3	2.6%
	Widow	5	4.6%
Education	Illiterate	4	3.6%
	Primary	20	16.2%%
	Secondary	46	70%
	Tertiary	30	11%

The current study total of 100 women took part in this study which gives a response rate of 100%. The participants were found between the age of 18-30 (96.7%), 31-45 (3.3%). Among the participants 70.5% respondents of secondary level and 24.5% respondents of primary, 30% of respondents of

tertiary, 4% respondents of illiterate. This study provides information on knowledge and attitude of cervical cancer screening among women visiting gynae outpatient department at private teaching hospital Lahore.

Table 2 knowledge level of participant's regarding cervical cancer

Knowledge level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<50% (<16 out of 32) Poor Knowledge	8	8.0	8.0	8.0
	>50% to 70% (> 22out of 32) good knowledge	88	88.0	88.0	96.0
	>70% to 100% (> 32out of 32) excellent knowledge	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

The current study identified that knowledge about cervical cancer is good and cervical screening is poor among women. The majority of respondents (96%) in this study were able to recognize cervical cancer as a

major public health problem. While (8%) respondents have poor knowledge about cervical cancer.

Table 3 Attitude level of participants towards cervical cancer

Attitude level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<50% (<16 out of 32) Poor attitude	70	70.0	70.0	70.0
	>50% to 70% (> 22out of 32) good attitude	30	30.0	30.0	100.0
	>70% to 100% (>32 out of 32) excellent knowledge	0	0.0	0.0	
Total		100	100.0	100.0	

This current study identified that attitude 70% of participants towards cervical cancer screening is not good because in our culture screening of cervical cancer is not consider important. Due to this reason, women shows lack of interest towards screening.

3. Discussion

The findings of this study reveal that while a substantial proportion of women (88%) demonstrated good knowledge about cervical cancer, the majority (70%) exhibited poor attitudes toward cervical cancer screening. This disconnect between knowledge and behavior reflects a broader challenge seen in many low- and middle-income countries, where awareness alone does not necessarily translate into proactive health-seeking practices.

Similar findings were reported by Heena et al. (2019), who observed that despite adequate knowledge among female healthcare professionals in Saudi Arabia, less than half had undergone cervical cancer screening themselves, citing barriers such as embarrassment, fear of results, and cultural discomfort. This aligns with the current study, where sociocultural stigma surrounding gynecological health likely contributes to the low attitude scores, even in the presence of good knowledge.

A study by Javaeed et al. (2019) conducted in Azad Kashmir found that while 64% of women had heard of cervical cancer, only 8% had ever undergone a Pap smear test. Their findings highlighted that low

screening uptake was influenced by sociocultural norms, lack of autonomy in healthcare decisions, and fear associated with the screening process. These findings support the current study's interpretation that despite knowing the importance of screening, women in Pakistan often do not act on this knowledge due to deeply rooted cultural barriers.

Further, Siddig et al. (2023) in Sudan emphasized the importance of attitude in bridging the gap between knowledge and practice. Their study found that health education interventions significantly improved women's willingness to undergo screening. This suggests that while foundational knowledge is essential, targeted behavioral change interventions and community-based awareness campaigns are critical to improving attitudes and ultimately increasing screening uptake.

Additionally, the study by Shrestha et al. (2023) in Nepal revealed that although 64.7% of women were educated, only 18.8% had comprehensive knowledge about cervical cancer symptoms and risk factors, and their attitudes toward preventive practices remained moderate to poor. This reinforces the notion that knowledge must be complemented with culturally appropriate strategies to foster positive attitudes and behavioral change.

4. Conclusion

Taken together, these findings underscore the urgent need for integrated education and outreach programs

that not only inform but also address sociocultural myths, fear, and taboos associated with cervical cancer screening. Empowering women through community health initiatives, involving male family members, and ensuring access to affordable screening services could help bridge the knowledge-attitude-practice gap observed in this and similar studies.

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