Original Article

# Knowledge Regarding Cervix Carcinoma, Its Screening and Prevention Among Women Attending Gynecology OPD

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ABSTRACT

Objective: To assess the knowledge of cervical cancer, its prevention, and screening among women attending gynecology outpatient departments (OPD) in Pakistan.

Methodology: A descriptive cross-sectional study was conducted Dept of obs and gynae DHQ hospital affiliated with Mohtarma Benazir Bhutto Shaheed Medical College Mirpur AJK from October 2018 April 2019. A total of 90 women, aged 25-65 years, attending the gynecology OPD were included. Data were collected using a structured questionnaire focusing on participants' knowledge of cervical cancer, its prevention, and screening. Knowledge levels were categorized as poor, fair, or good based on a 15-point scoring system. Data were analyzed using SPSS version 23.0.

Results: The mean age of participants was 47.0±9.21 years, with 62.2% belonging to lower socioeconomic status, and 96.7% were married. The majority (71.1%) had poor knowledge of cervical cancer, 27.8% had fair knowledge, and only 1.1% demonstrated good knowledge. There were no significant associations between knowledge levels and age, socioeconomic status, or educational status ($p > 0.05$).

Conclusion: The study highlights a considerable lack of awareness about cervical cancer, its prevention, and screening among women attending the gynecology OPD. The absence of significant associations between knowledge and demographic factors suggests a pervasive lack of understanding across all groups. Public health strategies, including educational campaigns and enhanced access to screening services, are crucial to reducing the cervical cancer burden in low-resource settings like Pakistan.

## Introduction

Cervical cancer is one of the leading causes of cancer-related deaths in women worldwide and is epidemiologically similar to a venereal disease, though with low infectivity.[1] Annually, over 500,000 women are diagnosed with cervical cancer, resulting in more than 300,000 fatalities globally. The disease is primarily caused by high-risk strains of the human papillomavirus (HPV), the most common viral infection of the reproductive tract.[2] Despite being largely preventable, around 90% of cervical cancer cases occur in low- and middle-income countries, where organized screening and HPV vaccination programs are limited.

In wealthier nations, cervical cancer incidence and mortality have decreased by over 50% in the past three decades due to formal screening programs.[2] According to the World Health Organization (WHO), over 5,000 women in Pakistan were diagnosed with cervical cancer in 2021, resulting in 3,006 deaths, though these figures are likely underestimated due to the lack of a national screening initiative.[3]

Globally, cervical cancer ranks as the fourth most common cancer among women, with approximately 604,000 new cases and 342,000 deaths recorded in 2020.[4] In Pakistan, it is the second most prevalent cancer among women, with an age-standardized incidence rate of 12.1 per 100,000.[5]

Although effective prevention and screening methods are available, the mortality rate remains high in Pakistan, primarily due to limited awareness and access to healthcare services.6 Studies from Pakistan reveal significant gaps in knowledge about cervical cancer. Research by Imam et al. found that only 36% of women visiting a tertiary hospital in Karachi were aware of cervical cancer, and just 17% had heard of the Pap smear test.3 Similarly, Naeem et al. reported that less than 10% of women in Peshawar had ever undergone a Pap smear.[7]

Preventing cervical cancer through early detection must be a priority, with screening for pre-cancerous conditions made more accessible.[3] These studies highlight the urgent need to close the knowledge gap

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and promote cervical cancer screening and prevention among Pakistani women. This study, conducted in a gynecological outpatient department, aims to assess awareness of cervical cancer among sexually active women, a group at higher risk of developing the disease and most likely to benefit from early detection and prevention efforts.

## Methodology

A descriptive cross-sectional study was conducted Dept of obs and gynae DHQ hospital affiliated with Mohtarma Benazir Bhutto Shaheed Medical College Mirpur AJK from October 2018 April 2019. Participants were selected using non-random consecutive sampling and included women aged 20 to 60 years attending the gynecology outpatient department (OPD) who were willing to participate. Exclusion criteria included patients with psychiatric disorders, cervical cancer, or a family history of cervical cancer. Informed consent was obtained from all participants, who were then given 10-15 minutes to complete a pre-designed questionnaire.

To ensure data reliability and minimize bias, variables were stratified by age, education level, and socioeconomic status. Knowledge about cervical cancer was assessed by compiling responses and calculating a mean score. Data collection focused on participants' knowledge, awareness, and practices related to cervical carcinoma, its screening methods (e.g., Pap smears), and preventive measures (e.g., HPV vaccination).

The questionnaire contained 15 questions, including multiple-choice and open-ended formats. Each correct response was scored as 1, and incorrect responses as 0, resulting in a total score range of 0-15. Participants were categorized based on their total scores: poor knowledge (0-5 correct answers), fair knowledge (6-10), and good knowledge (11-15). Results were tabulated for clarity, and data analysis was performed using SPSS version 23.0.

## Results

A total of 90 patients who met the inclusion criteria were enrolled in the study. The mean age of the participants was 47.0±9.21 years, with an age range A total of 90 patients who met the inclusion criteria were enrolled in the study. The mean age of the participants was 47.0±9.21 years, with an age range from 20 to 60 years. As per educational status, 43.3% were uneducated, while only 3.3% had completed a master's degree, 23.3%, had a primary education, and 30.0% had a secondary education. Most participants (80.0%) had parity 1-3, with 20.0% had parity more than three. In terms of socioeconomic status, 62.2% of the participants were classified as poor, 34.4% as middle class, and only 3.3% as upper class. All participants were married. In terms of residence, 37.7% lived in rural areas, while 62.2% resided in urban areas. Table I

Table I: Descriptive statistics of demographic and clinical information. (n=90)

| **Variables** | | **Statistics** | |
|---|---|---|---|
| **Mean age** | | 47.0 ± 9.21 years | |
| Educational status | Uneducated | 39 | 43.3% |
| | Masters | 03 | 03.3% |
| | Primary | 21 | 23.3% |
| | Secondary | 27 | 30.0% |
| Parity | 1-3 | 72 | 80.0% |
| | >3 | 18 | 20.0% |
| Socioeconomic status | Poor | 56 | 62.2% |
| | Middle | 31 | 34.4% |
| | Upper | 3 | 03.3% |
| Marital status | Married | 90 | 100.0% |
| | Un-married | -- | -- |
| Residence | Rural | 34 | 37.7% |
| | Urban | 56 | 62.2% |

In terms of knowledge about cervical cancer, its prevention, and screening, 71.1% of the participants had poor knowledge, while 27.8% had fair knowledge, and only 1.1% had good knowledge. Figure 1

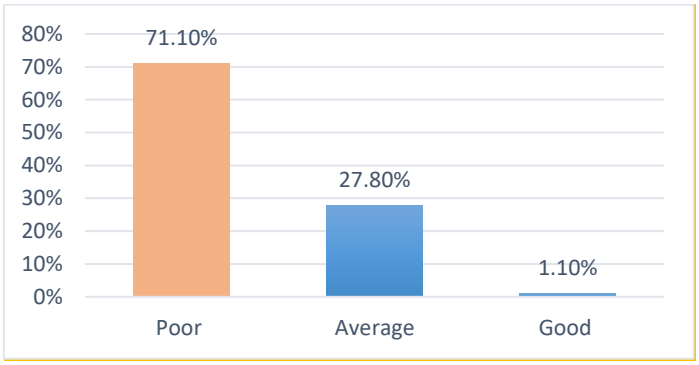


Figure 1. Overall knowledge about cervical cancer, its prevention and screening (n=90)

According to analysis of knowledge regarding cervical cancer based on age, socioeconomic status (SES), and educational status shows no significant associations ($p > 0.05$). Table II

## Discussion

The findings of this study indicate a concerning lack of knowledge about cervical cancer, its prevention, and screening among the majority of participants,

particularly those from lower socioeconomic backgrounds. This aligns with several other studies conducted in low- and middle-income countries (LMICs), where low awareness about cervical cancer has been consistently reported. In our study, 71.1% of the participants had poor knowledge, while only 1.1% demonstrated good knowledge. These results are consistent with a study conducted in India by Bansal et al., which found that 78% of women had inadequate knowledge about cervical cancer and its prevention, despite cervical cancer being one of the leading causes of cancer-related deaths in women in the region.[8] A notable aspect of our findings was the absence of a statistically significant relationship between knowledge and factors such as age, education, and parity. This suggests that the lack of awareness about cervical cancer is pervasive across different demographic groups. In contrast, some studies have reported a significant correlation between education level and knowledge about cervical cancer. For instance, a study conducted in Nigeria by Nwankwo et al. found that women with higher education levels were more likely to have better knowledge about cervical cancer and screening practices.[9] However, our results may reflect the reality in communities where sexual and reproductive health education is often not part of the formal education system, as highlighted by Ezechi et al., who reported similar findings in rural areas of sub-Saharan Africa, where cultural barriers and a lack of structured health education were the main contributors to poor awareness.[10]

In our study, there was no significant difference in knowledge levels between younger (25-50 years) and older (51-65 years) participants, as evidenced by p-values of 0.253 and 0.423, respectively. This is in contrast with a study by Rosser et al., which found that younger women, especially those under 40, had better awareness of cervical cancer prevention and the importance of Pap smears, likely due to better access to health education and screening services in developed settings.[11]However, in LMICs like ours, even younger women may not have adequate access to such information, which could explain the lack of significant variation across age groups.

Table II: Knowledge regarding carcinoma cervix according age, educational status and SES.

| **Variables** | | Knowledge | | | **p-value** |
|---|---|---|---|---|---|
| | | **Poor** | **Average** | **Good** | |
| Age groups of women | 20-40 years | 31(64.7%) | 17(33.3%) | 1(2%) | 0.253 |
| | 41-60 years | 31(79.5%) | 8(20.5%) | 0(0%) | |
| Socioeconomic status | Poor | 42(46.7%) | 14(15.6%) | -- | 0.349 |
| | Middle | 19(21.1%) | 11(12.2%) | 1(1.1%) | |
| | Upper | 3(3.3%) | -- | -- | |
| Educational status | Uneducated | 31(34.4%) | 8(8.9%) | -- | 0.298 |
| | Primary | 16(17.8%) | 5(5.6%) | -- | |
| | Secondary | 16(17.8%) | 10(11.1%) | 1(1.1%) | |
| | Masters | 1(1.1%) | 2(2.2%) | -- | |

Moreover, the stratification by education showed that those with primary education had the highest percentage of poor knowledge (37%), which is comparable to the findings by Kamau et al. in Kenya, where women with lower educational attainment were less likely to be aware of cervical cancer screening.[12] This underscores the need for targeted educational interventions to reach women with lower levels of formal education. Interestingly, parity was also not a significant predictor of cervical cancer knowledge in our study (p-value = 0.423).

This contrasts with findings from a study by Wong et al., which indicated that women with higher parity were more likely to be familiar with cervical cancer screening, possibly because of their frequent contact with healthcare services during pregnancy and childbirth.[13] The discrepancy in our results could be attributed to the fact that healthcare visits in our population may not necessarily translate into discussions about cancer screening, further emphasizing the need for proactive health education during routine healthcare visits. The fact that socioeconomic status played a major role in poor knowledge levels (62.2%) of participants from lower socioeconomic status) is consistent with global trends, where access to healthcare and health education is limited among those in lower economic strata. A study by Hoque in South Africa showed similar trends, where women from lower socioeconomic backgrounds were less likely to undergo Pap smear screening due to financial barriers and a lack of knowledge about its importance.[14]

Overall, our findings reflect a pervasive lack of awareness about cervical cancer, which is likely due to a combination of factors including poor access to health education, cultural barriers, and the absence of reproductive health topics in school curricula. It is essential to promote awareness campaigns, particularly through mass media and community health programs, as recommended by Abiodun et al., who found that media-based education significantly improved knowledge and attitudes toward cervical cancer screening in rural Nigeria.[15]

This study had certain limitations like very limited sample size, the results were based on a generalized scoring system. This research primarily examined the overall participants' understanding of cervical cancer screening and prevention, which was found to be insufficient. Despite these limitations, it is crucial for healthcare providers and the media to collaborate in raising awareness and promoting more regular testing. Increased education and screening could significantly reduce the incidence of cervical cancer and help lower the overall burden of the disease.

## Conclusion

The study revealed a substantial gap in awareness regarding cervical cancer, its prevention, and screening among women attending the gynecology OPD. The absence of significant associations between knowledge and demographic factors emphasizes the pervasive lack of awareness across all groups. To address this issue and reduce the cervical cancer burden in low-resource settings like Pakistan, targeted public health strategies are needed, including educational campaigns and improved access to screening services.

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