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Knowledge, Attitudes, Health System Perceptions, and Screening Accessibility Regarding Cervical Cancer Among Nursing Students: A Cross-Sectional Study

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Background: Cervical cancer (CC) remains a leading cause of mortality among women worldwide, particularly in low- and middle-income countries like Bangladesh. Despite its preventable nature through vaccination and regular screening, uptake remains alarmingly low. Nursing students, as future healthcare providers, play a crucial role in promoting awareness and facilitating screening. This study aimed to assess the knowledge, attitudes, and practices regarding CC screening among nursing students in Bangladesh.

Methods: A cross-sectional study was conducted among 376 nursing students selected through purposive sampling. Data were collected using a structured questionnaire, covering demographics, CC knowledge, screening practices, and barriers to participation. Descriptive and inferential statistics were applied using SPSS version 26.0 to analyze findings.

Results: Majority (77.13%) had heard of CC, but only 2.66% correctly identified HPV as the primary cause. Knowledge of symptoms and screening frequency was inconsistent, with 42.55% correctly identifying screening every 3 years as the recommended interval. Although 82.45% expressed willingness to consult a healthcare provider for screening, barriers such as cost (18.62%), lack of knowledge about screening facilities (13.30%), and fear of diagnosis (10.64%) hindered practical uptake. Healthcare system inadequacies were a major concern, with 55.85% perceiving the system as unequipped for CC diagnosis and treatment.

Conclusion: Despite a positive attitude toward CC screening, knowledge gaps and systemic barriers hinder effective screening uptake and early detection. Targeted educational interventions, financial support, and healthcare infrastructure improvements are necessary to bridge this gap. Strengthening nursing curricula, increasing awareness programs, and expanding screening accessibility are crucial to enhancing CC prevention efforts in Bangladesh.

Introduction

Cervical cancer remains one of the leading causes of cancer-related mortality among women worldwide, despite being largely preventable through vaccination and regular screening. According to the World Health Organization (WHO), cervical cancer accounted for approximately 604,000 new cases and 342,000 deaths globally in 2020, with a disproportionately high burden in low- and middle-income countries (LMICs) [1]. Persistent infection with high-risk strains of human papillomavirus (HPV), particularly HPV types 16 and 18, is the primary cause of cervical cancer, responsible for nearly 70% of cases [2]. Despite the availability of HPV vaccination and early detection strategies such as the Papanicolaou (Pap) smear, Visual Inspection with Acetic Acid (VIA),

and HPV DNA testing, cervical cancer remains a significant public health challenge, particularly in South Asia, where screening adherence and vaccine uptake remain alarmingly low [3]. In high-income countries, organized cervical cancer screening programs and widespread HPV vaccination have significantly reduced disease incidence and mortality rates. However, in South Asian nations such as Bangladesh, the burden remains critically high due to a combination of socio-economic, cultural, and infrastructural barriers [4]. According to World Health Organization, cervical cancer ranks as the fourth most common cancer among women [5]. Lack of awareness, financial constraints, cultural taboos, and limited access to healthcare facilities have contributed to poor adherence to WHO-recommended screening guidelines, which suggest that women aged 30–49 years undergo screening at least once every 5–10 years [6]. Additionally, the HPV vaccine has been introduced in some parts of Bangladesh, yet uptake remains suboptimal due to high costs and insufficient awareness campaigns targeting high-risk populations [2]. Primary prevention of cervical cancer is centered on HPV vaccination, while secondary prevention relies on timely and regular screening for early detection of precancerous lesions. Evidence suggests that HPV vaccination is highly effective in reducing the incidence of cervical cancer, particularly when administered before HPV exposure [4]. However, in Bangladesh, HPV vaccination remains largely inaccessible to the majority of the population due to high costs, lack of national immunization programs for adolescents, and general misinformation about vaccine safety [7]. Secondary prevention through screening tests such as Pap smears and VIA plays a crucial role in early detection and treatment. Yet, the implementation of these screening strategies remains inadequate, particularly in rural and underserved communities where healthcare infrastructure is limited [6]. Studies have shown that while VIA is a cost-effective alternative to Pap smears in LMICs, its utilization is significantly low, and many women are unaware of its availability [8]. Nursing students, as future healthcare providers, play a pivotal role in promoting cervical cancer awareness, prevention, and screening participation among women in the community. Their knowledge, attitude, and perceptions directly influence healthcare education, patient counseling, and screening advocacy [9]. Studies conducted in South Asia have shown that nursing students often have suboptimal knowledge of cervical cancer screening protocols, highlighting an educational gap in medical curricula [3]. A study conducted in India found that while 92.8% of nurses were aware of the Pap smear as a screening method, only 12.4% knew about VIA, and an even smaller proportion (2%) were aware of HPV testing as a screening tool [2]. Alarmingly, only 5.2% of nursing students had undergone cervical cancer screening themselves, and nearly 90% had never performed VIA or Pap smears due to a lack of formal training [3]. Furthermore, educational interventions have been shown to improve knowledge and attitudes toward cervical cancer screening among nursing students [10]. A study assessing the impact of a structured educational workshop on cervical and breast cancer screening among nursing students demonstrated a significant increase in knowledge post-training [11]. Such findings suggest that incorporating cervical cancer prevention modules into nursing education curricula can enhance knowledge and improve screening advocacy among future healthcare providers [12]. Despite this, research highlights that even when nurses possess adequate theoretical knowledge, their personal adherence to screening guidelines remains low, primarily due to misconceptions about personal risk [2]. A study found that 69.4% of nursing professionals had never undergone a Pap smear test themselves, with the most common reason being the belief that they were not at risk [12]. Given the high burden of cervical cancer in Bangladesh and the critical role of nursing students in healthcare delivery, assessing their knowledge and attitudes toward cervical cancer prevention and screening is essential. This study aims to evaluate the level of awareness, perceptions, and attitudes among nursing students regarding cervical cancer and screening practices. By identifying existing gaps in knowledge and barriers to screening participation, this study seeks to inform targeted interventions, educational curriculum improvements, and public health policies aimed at increasing screening rates and vaccine uptake. Strengthening nursing students' competencies in cervical cancer prevention will not only benefit their future practice but also contribute to broader public health efforts to reduce the cervical cancer burden in Bangladesh.

Materials and Methods

Study Design, Duration and Setting

This cross-sectional study was conducted among nursing students from January 2024 to June 2024 to assess their knowledge and attitudes regarding cervical cancer and screening practices. The study design was chosen to capture a snapshot of current awareness levels and perceptions within the nursing student population.

Study Population and Sampling

Study population were nursing students enrolled at TMSS Grand Health Sector operated nursing institutes in Northern part of Bangladesh. This study used the following recognized sample size determination formula to estimate its sample size for survey the formula, $n=(p\times q\times z^2)/d^2$ Where, p is the indicator percentage, Z is the normal variate value at 95% confidence interval, d is the error margin, On the basis of 50% indicator percentage, Z value as 1.96 (at 95% confidence interval), 0.05 error margin. Assuming, the number of study participants having knowledge regarding cervical cancer is 50 %, at 95% confidence interval actual sample size of this study was 384, however, this study reached 376 nursing students. Inclusion criteria included currently enrolled nursing students who were present during the data collection period and provided informed consent to participate. Exclusion criteria comprised students who were absent during data collection, declined consent, or had incomplete responses that could not be clarified.

Data Collection Method

Data were collected through a structured questionnaire that included three main components: demographic information, knowledge about cervical cancer and screening, and attitudes toward cervical cancer prevention. The questionnaire was developed based on extensive review of relevant literature and validated through pretesting among a small group of nursing students before final implementation. Face-to-face interviews were conducted by trained personnel to ensure accuracy and completeness of responses, allowing for immediate clarification of questions when needed. Informed consent was obtained from all participants prior to data collection.

Data Entry and Analysis

All questionnaires were checked manually after the interviews for missing data and inconsistencies which were cross cheeked with repeating the question. Internal consistency was checked among the interviewer. Data were entered into a Microsoft Excel and after cleaning all data, transferred into the Statistical Package for Social Sciences (SPSS) software version 23 (Armonk, New York, USA) for analysis. Continuous data were presented as mean ±standard deviation (SD) or median (inter quartile range) and categorical data were presented as number and percentage.

Ethical Approval

Ethical Approval was taken from Institutional Review Board of Public Health Foundation of Bangladesh (2023/12). In addition, data collection permission was taken from the Principal, TMSS Nursing College. Before data collection, all participants were briefed about the process of data collection and assured about confidentiality of their data. The Questionnaire made easily understandable for the participants. A written consent form was used to take permission from each

of the participants of the study. All participants were given equal rights to ask any type of study related questions. All participants had the right to leave the study at any time. The aim and objectives of the study were well informed to all participants. the participants were informed that they did not get direct benefit from this study.

Results

Demographic Characteristics

The study comprised 376 nursing students with a mean age of 23.4 years. The majority (58.51%) were aged 18-25 years, while 41.49% were over 25 years. Most participants (69.95%) were enrolled in BSc Nursing programs, and 30.05% in Diploma programs. Religious distribution showed 79.79% Muslim, 17.29% Hindu, and 2.93% other faiths.

Regarding marital status, 63.83% were single and 29.26% married, with smaller proportions divorced (2.66%), separated (2.13%), or widowed (2.13%). Among married participants (n=110), the mean marriage duration was 6.2±3.5 years, with marriage age averaging 21.5±3.1 years. Husbands' mean age was 28.3±4.2 years, with educational levels distributed as follows: honors (26.60%), higher secondary (23.94%), secondary (21.28%), masters (13.30%), primary (10.64%), and no formal education (2.66%).

Employment patterns among husbands showed 31.91% in government/NGO positions, 23.94% in business, 21.28% as day laborers, 13.30% in farming, and 9.57% unemployed. The mean monthly family income was 25,500±5,200 BDT. Reproductive health indicators revealed an average of 2.1±1.1 children per participant, with mean age at first delivery of 23.5±2.8 years (Table 1).

Basic Characteristics	Frequency (n)		Percentage (%)
Age of Respondent			
18-25	220		58.51
>25	156		41.49
Occupation			
BSC Nursing	263		69.95
Diploma Nursing	113		30.05
Religion			
Islam	300		79.79
Hindu	65		17.29
Others (Christian, Buddhists etc.)	11		2.93
Marital Status			
Single	240		63.83
Married	110		29.26
Divorced	10		2.66
Separated	8		2.13
Widowed	8		2.13
Duration of Marriage (in years)			
Mean ± SD		6.2 ± 3.5	
Minimum -Maximum	1-20		
Age of Marriage (in years)			
Mean ± SD	21.5 ± 3.1		
Age of Husband			
Mean ± SD	28.3 ± 4.2		

Husband's Education Level			
No formal education	10		2.66
Primary education	40		10.64
Secondary education	80		21.28
Higher secondary	90		23.94
Honors	100		26.60
Masters	50		13.30
Others (Madrasa, technical, vocational etc. nontraditional)	6		1.60
Occupation Respondents' Husband			
Employee (GO/NGO)	120		31.91
Business	90		23.94
Day Labor	80		21.28
Farmer	50		13.30
Unemployed	36		9.57
Monthly Family Income (BDT)			
Mean ± SD		25,500 ± 5,200	
Number of births/deliveries/Children			
Mean ± SD		2.1 ± 1.1	
Age of 1st Delivery (years)			
Mean ± SD		23.5 ± 2.8	

Table 1. Basic Characteristics of Study Populations (n=376).

Cervical Cancer Knowledge

Most participants (77.13%) had heard of cervical cancer, with primary information sources being TV/ radio (39.89%) and health facilities (37.23%). Only 21.28% personally knew someone with cervical cancer, with 47.87% of these cases identified through hospital screening.

The most recognized symptoms were heavier/ prolonged menstrual periods (21.28%), post-coital bleeding (14.63%), and inter-menstrual bleeding (14.36%). Other identified symptoms included persistent vaginal discharge (14.10%), lower back pain (11.70%), and post-menopausal bleeding (9.31%). However, 2.66% had no symptom knowledge.

Regarding risk factors, participants identified cigarette smoking (21.28%), lack of regular screening (18.62%), multiple sexual partners (17.82%), early sexual intercourse (13.30%), and prolonged oral contraceptive use (13.30%). Critically, only 2.66% recognized HPV as the primary cause, and 13.03% reported no risk factor knowledge.

For transmission, 40.43% correctly identified sexual contact as the mode of transmission, while 25.27% held misconceptions about water transmission, spousal transmission, or hereditary factors. A substantial proportion (33.78%) lacked transmission knowledge (Table 2).

Knowledge on Cervical Cancer	Frequency (n)	Percentage (%)
Have you ever heard of CC?		
Yes	290	77.13
No	86	22.87
How did you learn about it?		
TV/Radio	150	39.89
Printed materials	50	13.30

Health Facilities	140	37.23
Family/Friends	65	17.29
Religious leaders	20	5.32
Community Health Workers	6	1.60
Do you know someone with CC?		
Yes	80	21.28
No	296	78.72
How did they come to know that about it		
Through screening in Hospital	180	47.87
Had symptoms suggestive CC	3	0.80
Do not Know	10	2.66
Others (Relatives, kith and kin, friends, social circle)	43	11.44
What are the signs and symptoms of CC		
Post-coital bleeding	55	14.63
Vaginal bleeding between periods	54	14.36
Vaginal bleeding after menopause	35	9.31
Persistent vaginal discharge	53	14.10
Menstrual Periods That are heavier or longer than usual	80	21.28
Discomfort or pain during sex	20	5.32
Persistent lower back pain	44	11.70
Do not know	10	2.66
Others (Fever, vomiting, pelvic pain, leg pain, blood in urine, weight loss, fatigue etc.)	25	6.65
What are the causes of CC (Risk Factors)		
HPV (Human Papilloma Virus)	10	2.66
Having multiple sexual partners	67	17.82
Sexual Intercourse during early age	50	13.30
Cigarette smoking	80	21.28
Long term use of OCP	50	13.30
Not attaining regular screening programme	70	18.62
Do not know	49	13.03
If yes, how is it transmitted		
Sexually transmitted through contact with the diseased person	152	40.43
Through air	2	0.53
Do not know	127	33.78
Others (through water, from husband, familial etc.)	95	25.27

Table 2. Distribution of Study Population Based on Knowledge on Cervical Cancer (CC) (n=376).

Cervical Cancer Screening Knowledge

The majority (74.47%) had heard of cervical cancer screening, with information primarily obtained from health facilities (37.23%), TV/radio (34.57%), and community health workers (31.91%). Nearly all participants (99.47%) correctly recognized that screening can detect cervical cancer before symptoms appear. Regarding screening facilities, 39.89% identified private clinics, while 21.28% mentioned TMSS Medical College & Rafatullah Community Hospital (TMC&RCH), and 21.01%

cited Shaheed Ziaur Rahman Medical College Hospital (SZMCH). Most participants (79.79%) correctly acknowledged that early-detected cervical cancer is treatable, though 7.98% disagreed and 12.23% were uncertain. For screening frequency, 42.55% recommended three-yearly screening, 31.91% suggested annual screening, and 15.96% preferred five-yearly intervals, while 9.57% were unaware of appropriate intervals. Preferred venues for disseminating screening information were women's groups (29.26%), health facilities (26.60%), and places of worship (21.28%), followed by markets (17.29%) and homes (13.30%) (Table 3).

Knowledge on Prevention and Screening	Frequency (n)	Percentage (%)
Heard of CC Screening/Test?		
Yes	280	74.47
No	96	25.53
Where did you come to learn of it?		
TV/Radio	130	34.57
Printed materials/Brochures/Posters/Others	10	2.66
Health Facilities	140	37.23
Family/friends/Neighbors/Colleagues	30	7.98
Religious leaders	12	3.19
Community health workers	120	31.91
Other sources	20	5.32
Is it possible to detect CC through screening/routine checkup before symptoms appear?		
Yes	374	99.47
No	2	0.53
This cancer does not kill		
TRUE	337	89.63
FALSE	20	5.32
Don't know	19	5.05
Name a health facility in your area that does offer screening and treatment service for CC?		
Do not know	20	5.32
TMC and RCH	80	21.28
SZMC&H	79	21.01
Mohammad Ali Hospital	40	10.64
Private Clinic	150	39.89
Others (community clinic, chamber, etc)	7	1.86
Is CC treatable if detected early?		
Yes	300	79.79
No	30	7.98
Do not know	46	12.23
How often should women be screened?		
Yearly	120	31.91
Every 3 years	160	42.55
Every 5 years	60	15.96
Do not know	36	9.57
What would be the best place to reach women with CC screening messages?		
In women's groups	110	29.26
Places of worship	80	21.28
Health facilities	100	26.60
At home	50	13.30

Markets	65	17.29
Others (Workplace, educational institutes etc.)	10	2.66

Table 3. Distribution of Study Population Based on Knowledge of Prevention and Screening Uptake (n=376).

Attitudes Toward Cervical Cancer Screening

Most participants (82.45%) expressed willingness to consult healthcare providers for screening. Regarding screening eligibility, 53.19% believed only symptomatic women required screening, while 50.53% correctly identified all women of childbearing age. Concerning misconceptions, 26.60% thought screening was necessary only for women with promiscuous lifestyles.

The majority (90.43%) were willing to undergo screening at age 30, while 7.98% remained uncertain.

Most participants (84.57%) acknowledged barriers to screening, with primary obstacles being cost (18.62%), lack of awareness about screening locations (13.30%), and fear of diagnosis (10.64%). Additional barriers included guardian permission requirements (7.98%), religious restrictions (5.32%), and absence of female healthcare providers (5.32%). Notably, 17.55% cited perceived wellness as a reason for avoiding screening, indicating inadequate understanding of asymptomatic disease progression (Table 4).

Attitude and Practice	Frequency (n)	Percentage (%)
Willing to consult a provider for screening?		
Yes	310	82.45
No	66	17.55
In your opinion, who should be screened		
All women of child-bearing age	190	50.53
Only women with symptoms suggesting of CC	200	53.19
Only women with promiscuous lifestyle	100	26.60
Do not know	11	2.93
Will you participate in screening for CC at age 30?		
Yes	340	90.43
No	6	1.60
May be	30	7.98
Are there any reason as to why women do not go for screening for CC		
Yes	318	84.57
No	58	15.43
Reasons for not screening		
Don’t know where	50	13.30
Costly	70	18.62
Fear of diagnosis	40	10.64
No guardian permission	30	7.98
Religious barrier	20	5.32
Lack of female attendant	20	5.32
Perceived wellness	66	17.55

Table 4. Distribution of Study Population Based on Attitude and Practice.

*There were multiple responses

Health System Perceptions and Screening Accessibility Only 31.91% believed the health system was adequately equipped for cervical cancer diagnosis and treatment, while 55.85% disagreed. Among those perceiving inadequacy (n=210), primary concerns were insufficient healthcare professionals (69.05%) and lack of equipment (59.52%). Among those confident in the system (n=120), 70.83% reported patient treatment accessibility. Few participants (2.66%) personally knew diagnosed cases, with 19.95% of these seeking modern medical treatment. The majority (89.10%) supported universal screening availability for eligible women. To improve screening accessibility, participants recommended increased awareness (53.99%), free screening access (49.73%), enhanced government support (40.42%), trained healthcare providers (37.23%), and reminder systems (21.01%) (Table 5).

Health System	Frequency (n)	Percentage (%)
Do you think our health system is well equipped to diagnose and treat cancer of cervix?		
Yes	120	31.91
No	210	55.85
Do not know	46	12.23
If no above, what are unavailable? (n=210)		
Lack of resources (Doctors/nurses)	145	69.05
Lack of equipment	125	59.52
Do not know	30	14.28
Others (Lack of awareness)	45	21.43
If yes above, were they able to access treatment? (n=120)		
Yes	85	70.83
Do not know	35	29.17
If no, what in your opinion were the reasons they were not treated?		
Diagnosed in late stage	15	3.99
Lost to follow-up	5	1.33
Financial crisis	8	2.13
Location barriers for patient attendance	12	3.19
Do you know of someone who was diagnosed with CC?		
Yes	10	2.66
No	367	97.61
What treatment option did they try?		
Modern treatment (in health facility/hospital)	75	19.95
Traditional treatment	12	3.19
Spiritual Healing	7	1.86
Do not know	4	1.06
Do you think this test is needed for all eligible women?		
Yes	335	89.10
No	15	3.99
Do not know	26	6.91
In your opinion, how can cancer screening programs be available in your community so that every eligible woman can take this service?		

Awareness	203	53.99
Free access to screening centers	187	49.73
Trained healthcare providers	140	37.23
Government support	152	40.42
Reminders	79	21.01
Do not know	30	7.98

Table 5. Distribution of Study Population Based on Health System (n=376).

Discussion

The demographic distribution of the respondents showed that 58.51% were aged 18-25 years, and 69.95% were pursuing a BSc in Nursing, reflecting a relatively younger, educated cohort. This aligns with findings from a study in India, where nursing students in a similar age group exhibited varying levels of awareness about cervical cancer, despite their medical education background [2]. However, disparities remain in their knowledge of CC risk factors and symptoms, reinforcing concerns raised in studies from Egypt and Saudi Arabia, where nursing students demonstrated suboptimal awareness regarding HPV as the primary cause of CC [10, 13]. In terms of knowledge of CC symptoms, only 21.28% identified prolonged menstrual periods as a key symptom, while 14.63% recognized post-coital bleeding. These rates are comparable to findings from a Bangladeshi study, where 51.9% of nurses recognized abnormal vaginal bleeding as a symptom, suggesting that gaps remain in symptom recognition despite medical training [14]. Similarly, HPV awareness was alarmingly low in this study (2.66%), consistent with research from Kuwait, where only 25.72% of nursing students correctly identified HPV as a causative agent [15]. Such findings underscore the urgent need for structured education on HPV and its role in CC development. Regarding CC screening awareness and uptake, 74.47% of respondents had heard of CC screening, but 25.53% were unaware of screening tests. The main sources of screening knowledge were health facilities (37.23%), TV/Radio (34.57%), and community health workers (31.91%), reflecting global patterns seen in Nigeria and Kenya, where healthcare facilities and mass media play crucial roles in awareness dissemination [16, 17]. However, despite high screening awareness, actual uptake remains low in many LMICs, as seen in Nigeria, where only 18% of nursing students had undergone screening despite 86.7% awareness [18]. This discrepancy highlights the critical gap between awareness and actual screening participation, which may be influenced by sociocultural, financial, and infrastructural barriers. The attitude toward screening was generally positive, with 82.45% expressing willingness to consult a healthcare provider and 90.43% agreeing to undergo CC screening at age 30. This is significantly higher than findings from India, where only 32% of women were willing to get screened due to misconceptions and fear [19]. However, barriers to screening remain prevalent in Bangladesh, with cost (18.62%), lack of knowledge about screening locations (13.30%), and fear of diagnosis (10.64%) identified as major deterrents. These barriers mirror findings in Kenya and Ethiopia, where financial constraints, transportation costs, and fear of positive results were key obstacles to screening uptake [17, 20]. The healthcare system’s readiness to manage CC screening and treatment remains a significant concern, with 55.85% of respondents believing the system is inadequately equipped. Among those who viewed the system as deficient, 69.05% cited a lack of healthcare professionals, and 59.52% mentioned inadequate equipment. These findings align with studies in Brazil and India, where infrastructural gaps and unequal healthcare distribution were major challenges to effective CC management [21, 22]. Moreover, access to CC treatment remains a challenge, as evidenced by the 29.17% of respondents who were unsure whether treatment was accessible, a finding that resonates with Latin American studies highlighting disparities in CC treatment availability [23]. The need for universal screening and policy-level interventions was emphasized in this study, with 89.10% supporting screening for all eligible women. This is consistent with studies in Namibia and India, where universal screening programs were recommended to address inequities in CC prevention [24, 25]. The most recommended strategies to improve screening accessibility were awareness programs (53.99%),

free screening services (49.73%),and government support (40.42%), establishing national cancer registry, reinforcing global findings that public health education and financial accessibility are critical for enhancing screening participation [26- 28]. This study highlights significant knowledge gaps, screening barriers, and healthcare system limitations in CC prevention among nursing students in Bangladesh. While attitudes toward screening are generally positive, the disparity between awareness and screening uptake must be addressed through targeted educational programs, policy support, and healthcare system strengthening. Addressing financial constraints, training healthcare providers, and expanding screening accessibility will be crucial in enhancing CC prevention efforts in Bangladesh and similar LMIC settings.

In conclusion, this study highlights critical gaps in knowledge, attitudes, and screening practices related to cervical cancer among nursing students in Bangladesh. While awareness levels were relatively high, significant misconceptions persisted, particularly regarding risk factors, symptoms, and screening frequency. The willingness to undergo screening was promising, yet practical uptake remained low, primarily due to financial constraints, lack of knowledge about screening facilities, fear of diagnosis, and absence of female healthcare providers. Furthermore, healthcare system readiness was a major concern, with over half of the respondents perceiving the system as inadequately equipped, citing a lack of healthcare professionals and screening equipment as key challenges. Despite these obstacles, a strong consensus emerged in favor of universal screening, with respondents recommending awareness campaigns, free screening services, and government intervention to improve accessibility. Addressing these issues through targeted education, policy reforms, and strengthened healthcare infrastructure is essential to enhance screening uptake and early detection of cervical cancer. Future studies should explore longitudinal interventions to assess the impact of educational programs and policy changes on screening behaviors. Strengthening nursing curricula with comprehensive cervical cancer education and integrating screening advocacy into healthcare training could play a pivotal role in bridging the gap between awareness and action.

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Author contributions

Both authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by MSP and MKBS. The first draft of the manuscript was written by MSP, and both authors commented on previous versions of the manuscript. Both authors read and approved the final manuscript.

Conflict of interest

The authors have no relevant financial or nonfinancial interests to disclose.

Consent to participate

Written consent was obtained from all individual participants included in the study.

Data availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

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