Asia Pacific Journal of Surgical Advances
(An Open Access Peer-Reviewed International Journal)

eISSN: 3079-1618
Volume-2, Issue-1
DOI: https://doi.org/10.70818/apjsa.2025.v02i01.018

Original Research Article

Risk Factors, Health-Seeking Behavior, Attitudes, and Knowledge Regarding Cervical Carcinoma Among Rural Women in Bangladesh

Fatima-Tuz-Zohra[1]*, Rafia Zannatul Islam[2], Farhat Tasnim[3], Bayejid Howlader[4], Md Sifuddin[5], Keya Parveen[6]

[1] *Residential Medical Officer, Bright Health Specialized Hospital, Sirajganj*
[2] *Residential Medical Officer of Respiratory Medicine, Square Hospital, Dhaka*
[3] *Residential Medical Officer, Medi Aid General Hospital Ltd, Dhanmondi, Dhaka*
[4] *Medical Officer, Shaheed Tajuddin Ahmad Medical College Hospital, Gazipur, Dhaka*
[5] *Medical Doctor in Terre des Hommes, Teknaf, Cox's Bazar*
[6] *Lecturer, Microbiology, Khulna City Medical College, Khulna*

ABSTRACT: ***Background:*** Cervical cancer poses a significant health burden in Bangladesh, where it ranks as the second most common cancer among women. Factors contributing to this include inadequate healthcare infrastructure, high prevalence of risk factors such as early marriage and limited access to screening programs. ***Objective:*** This study aimed to assess risk factors, health-seeking behavior, attitudes, and knowledge regarding cervical carcinoma among rural women in Soyadhangora Village, Sirajganj District, Bangladesh. ***Methods:*** A cross-sectional study was conducted from January to June 2022. A sample of 150 rural women aged 20 years and above was selected using multistage random sampling. Data was collected using a structured questionnaire covering demographic information, knowledge about cervical cancer, attitudes towards screening, health-seeking behaviors, and risk factors. Descriptive statistics including frequencies and percentages were used to analyze the data. ***Results:*** Among the participants, 60% had heard of cervical cancer, but only 46.7% were aware of its risk factors. Despite awareness, only 40.0% expressed willingness to undergo screening. The majority (80.0%) were married before the age of 18, and 53.3% had poor personal hygiene practices. Financial barriers were reported by 66.7% of low-income women as a deterrent to screening. ***Conclusion:*** The study highlights gaps in knowledge, low screening uptake, and significant socio-economic barriers among rural women in Bangladesh regarding cervical cancer. Effective interventions targeting education, awareness, and accessibility to screening services are critical to mitigate the impact of cervical cancer in this population.

Keywords: Cervical Cancer, Risk Factors, Health-Seeking Behavior, Rural Women, Bangladesh.

Citation:
Zohra FT, Islam RZ, Tasnin F, HowladerB, Sifuddin M, Parveen K. Risk Factors, Health-Seeking Behavior, Attitudes, and Knowledge Regarding Cervical Carcinoma Among Rural Women in Bangladesh. Asia Pac J Surg Adv. 2025;2(1):41-46.

Received: 17 November, 2025
Accepted: 19 January, 2025
Published: 17 February, 2025

***Corresponding Author:**
Dr. Fatima-Tuz-Zohra

INTRODUCTION

Human papillomavirus (HPV) is the primary cause of cervical cancer. While the immune system clears about 90% of HPV infections naturally, persistent infections can lead to the development of precancerous lesions. Over approximately 10 years, these lesions may progress to cervical cancer. These precancerous lesions typically do not cause clinical symptoms, underscoring the importance of cervical screening for early detection and treatment. Bangladesh faces a significant burden of cervical cancer due to inadequate screening programs and a high prevalence of risk factors. Factors such as early marriage, early initiation of sexual activity, high parity, sexually transmitted diseases (STDs), and

socio-economic challenges contribute to the elevated incidence of cervical cancer in the country [1]. Bangladesh, characterized by a dense population of 165,158,616 as per the 2022 census, faces significant healthcare challenges, particularly concerning cervical cancer. Among the population, 83,347,206 are female, with a majority of 113,063,587 residing in rural areas [2]. The health sector budget allocation is 2.34% of the gross domestic product, with 75.3% of total health expenditure in 2018 sourced from the private sector, showing an annual growth of 0.93% [3]. Bangladesh lacks a national cancer registry, complicating comprehensive disease tracking and management. According to GOLOBOCAN 2020 data, Bangladesh reports an age-standardized incidence rate of cancer at 106.2, with 156,775 new cases and 108,990 deaths documented [4]. Globally, cervical cancer ranks as the fourth most common cancer among women, with 604,000 new cases and 342,000 deaths recorded in 2020. Alarmingly, 90% of these cases and deaths in 2020 were concentrated in low- and middle-income countries. Projections suggest an increase in global new cases from 570,000 to 700,000 and deaths from 311,000 to 400,000 annually between 2018 and 2030 [5]. In Bangladesh, cervical cancer ranks as the second most prevalent cancer among women, constituting 12% of female cancer cases. In 2018, there were 8,068 new cases (10.6 per 100,000 women) and 5,214 deaths (7.1 per 100,000 women). Without intervention, projections estimate that 505,703 Bangladeshi women will succumb to cervical cancer by 2070, rising to 1,042,859 by 2120 [6]. This study aims to contribute to the existing knowledge by assessing the risk factors, health-seeking behavior, attitudes, and knowledge regarding cervical carcinoma among rural women in Soyadhangora Village, Sirajganj District, Bangladesh. Understanding these factors is crucial for developing targeted interventions to reduce the burden of cervical cancer and improve women's health outcomes in Bangladesh.

MATERIALS AND METHODS

This study utilized a cross-sectional design to investigate "Risk Factors, Health-Seeking Behavior, Attitudes, and Knowledge Regarding Cervical Carcinoma Among Rural Women in Soyadhangora Village, Sirajganj Sadar Upazila, Sirajganj District, Bangladesh." The study was conducted over a period from January to June 2022. A sample size of 150 rural women was determined using a multistage random sampling technique. Initially, Sirajganj District was randomly selected from several rural districts in Bangladesh. Next, Soyadhangora Village was chosen randomly from within Sirajganj Sadar Upazila. Finally, eligible women aged 20 years and above from Soyadhangora Village were randomly sampled for participation. Data collection involved structured interviews using a questionnaire developed based on literature review and expert consultation. The questionnaire covered demographic characteristics, knowledge about cervical carcinoma, attitudes towards screening, health-seeking behaviors, risk factors (including age at marriage, parity, and hygiene practices), and socio-economic status. The interviewer conducted face-to-face interviews in Bengali, ensuring comprehension and accurate responses. Ethical considerations were observed, with informed consent obtained from each participant. Data analysis included descriptive statistics (frequencies, percentages) and inferential statistics (chi-square tests using appropriate statistical software. Limitations included potential recall bias and the study's focus on a specific village, which may impact the generalizability of findings to other rural areas in Bangladesh.

RESULT

Table 1: Demographic Characteristics of the Study Population

Variable	Frequency (n=150)	Percentage (%)
Age (years)		
20-29	30	20.0
30-39	45	30.0
40-49	50	33.3
50+	25	16.7
Education Level		

No Formal Education	60	40.0
Primary Education	50	33.3
Secondary Education	30	20.0
Higher Education	10	6.7
Marital Status		
Married	120	80.0
Unmarried/Other	30	20.0

Table 1 shows the demographic profile of 150 rural women in Bangladesh. Most participants were aged 30-49 years (33.3%), had no formal education (40.0%), and were married (80.0%).

Table 2: Knowledge About Cervical Carcinoma

Knowledge Level	Frequency (n=150)	Percentage (%)	p-value
Heard of Cervical Cancer			
Yes	90	60.0	0.01
No	60	40.0	
Aware of Risk Factors			
Yes	70	46.7	0.03
No	80	53.3	
Know About Screening			
Yes	50	33.3	0.02
No	100	66.7	

In Table 2, 60% had heard of cervical cancer, 46.7% were aware of its risk factors, and only 33.3% knew about screening methods.

Table 3: Attitudes Towards Cervical Cancer Screening

Attitude Level	Frequency (n=150)	Percentage (%)	p-value
Believe Screening is Necessary			
Yes	80	53.3	0.01
No	70	46.7	
Willing to Get Screened			
Yes	60	40.0	0.05
No	90	60.0	

In Table 3, Attitudes towards cervical cancer screening are highlighted. 53.3% believed screening was necessary, and 40.0% were willing to undergo screening.

Table 4: Health-Seeking Behavior Related to Cervical Carcinoma

Health-Seeking Behavior	Frequency (n=150)	Percentage (%)	p-value
Visited Health Facility for Screening			
Yes	40	26.7	0.03
No	110	73.3	
Consulted Doctor for Symptoms			
Yes	45	30.0	0.04
No	105	70.0	
Use of Traditional Healers			
Yes	70	46.7	0.01
No	80	53.3	

Table 4 presents health-seeking behaviors related to cervical carcinoma. 26.7% had visited health facilities for screening, 30.0% consulted doctors for symptoms, and 46.7% used traditional healers.

Table 5: Risk Factors for Cervical Carcinoma

Risk Factor	Frequency (n=150)	Percentage (%)	p-value
Early Marriage (<18)			
Yes	90	60.0	0.02
No	60	40.0	
Parity (Number of Children)			
1-2	50	33.3	0.01
3-4	70	46.7	
5+	30	20.0	
Poor Personal Hygiene			
Yes	80	53.3	0.03
No	70	46.7	
Family History of Cancer			
Yes	10	6.7	0.04
No	140	93.3	
Use of Contraceptives (Barrier method)			
Yes	70	46.7	0.05
No	80	53.3	

Risk factors for cervical carcinoma are outlined in Table 5, with 60.0% marrying before 18 years, parity distribution of 33.3% with 0-1 children, 46.7% with 3-4 children, and 20.0% with 5 or more children. Poor personal hygiene was reported by 53.3%. 6.7% had a positive family history of cervical cancer and 53.3% did not use contraceptives.

DISCUSSION

This study aimed to assess the risk factors, health-seeking behavior, attitudes, and knowledge regarding cervical carcinoma among rural women in Soyadhangora Village, Sirajganj District, Bangladesh. The findings revealed significant gaps in knowledge, attitudes, and practices related to cervical cancer, alongside prevalent socio-economic barriers. The study found that 60% of the participants had heard of cervical cancer, and 46.7% were aware of its risk factors. This awareness level is lower than that reported in a study by Rahman and Bhattacharjee *et al*, where 87% of women knew about cervical cancer [7]. Similarly, Islam *et al*, found a higher awareness level of 92% among participants in Northern India [8]. The relatively low awareness in our study underscores the need for targeted educational interventions in rural areas to enhance knowledge about cervical cancer and its risk factors. Despite the awareness, only 33.3% of the participants knew about screening methods, and 40% expressed willingness to undergo screening. This is comparable to the study conducted by Aweke *et al*, in Ethiopia, where only 10% of participants had undergone VIA screening [9]. However, our findings contrast with Gupta *et al*, where 53.3% of participants believed that screening was necessary, indicating a gap between perceived necessity and willingness to participate in screening [10]. The health-seeking behavior of the participants was suboptimal, with only 26.7% visiting health facilities for screening and 30% consulting doctors for symptoms related to cervical cancer. This is slightly higher than the findings from Woldetsadik *et al*, in Ethiopia, where only 10% of participants had sought medical advice. The reliance on traditional healers was significant, with 46.7% of participants using their services, reflecting a cultural preference that can hinder early detection and treatment [11]. The study identified early marriage, high parity, and poor personal hygiene as prevalent risk factors among participants. Specifically, 60% of women married before the age of 18, aligning with Papri *et al*, who highlighted early marriage as a significant risk factor for

cervical cancer in Bangladesh [12]. The study also found that 46.7% of participants had 3-4 children, and 53.3% reported poor personal hygiene practices. These findings are consistent with Mengesha *et al*, who identified similar risk factors in North West Ethiopia [13].

CONCLUSION

In this study highlights significant gaps in knowledge, attitudes, and practices related to cervical cancer among rural women in Soyadhangora Village, Sirajganj District, Bangladesh. Despite a reasonable level of awareness about cervical cancer, misconceptions and socio-economic barriers hinder the uptake of screening services. Targeted interventions focusing on education, awareness, and accessibility to screening services are essential to reduce the burden of cervical cancer in rural Bangladesh. Collaborative efforts involving policymakers, healthcare providers, and community stakeholders are crucial to overcoming these challenges and improving women's health outcomes nationwide.

Acknowledgments

I would like to express my sincere gratitude to Dr. Farhana Ferdaus, Associate Professor and Head of Community Medicine and Public Health at Khulna City Medical College, Khulna, Bangladesh, for her invaluable guidance, expertise, and support throughout this study.

Funding: No funding sources

Conflict of interest: None declared

REFERENCES

1. National Strategy for Cervical Cancer Prevention and Control in Bangladesh, 2017-2022 2017.
2. "Population and Housing Census 2022 Preliminary report" Bangladesh Bureau of StatisticsAugust 2022. Retrieved 8 October 2022.
3. Bangladesh - Out of Pocket Expenditure as a Share of Current Health ExpenditureKnoema; 2018.
4. Globocan 2020. Lyon, France: World Health Organization; 2020. International Agency for Research on Cancer.
5. Sung H, Ferlay J, Siegel R L. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin. 2021;71(03):209–249.
6. Canfell K, Kim J J, Brisson M.Mortality impact of achieving WHO cervical cancer elimination targets: a comparative modelling analysis in 78 low-income and lower-middle-income,countries Lancet 2020395(10224):591–603.
7. Rahman F, Bhattacharjee A. Awareness level of cervical cancer among rural women attending Manikgonj 250-bedded district hospital, Manikgonj. J Enam Med Coll. 2019; 9:34–40.
8. Islam RM, Bell RJ, Billah B, Hossain MB, Davis SR. Lack of understanding of cervical cancer and screening is the leading barrier to screening uptake in women at midlife in Bangladesh: Population-based cross-sectional survey. Oncologist. 2015:1386–1392.
9. Aweke YH, Ayanto SY, Ersado TL. Knowledge, attitude and practice for cervical cancer prevention and control among women of childbearing age in Hossana Town, Hadiya zone, Southern Ethiopia: Community-based cross-sectional study. PLoS One. 2017;12: e0181415.
10. Gupta RK, Singh P, Langer B, et al. Cervical cancer: a hospital based KAP study among women aged 18 years and above in Northern India. Int J Community Med Public Health. 2019; 6:1628.
11. Woldetsadik AB, Amhare AF, Bitew ST, et al. Socio-demographic characteristics and associated factors influencing cervical cancer screening among women attending in St. Ethiopia.BMC Womens. Health. 2020; 20:70.
12. Papri FS, Khanam Z, Islam F, Hakim MM. Knowledge and awareness about risk factors of cervical cancer its screening and vaccination among the women attending Chittagong Medical College Hospital. Chattagram Maa-O-Shishu. Hosp. Med Coll J. 2015; 14:57–60.
13. Hasan, H., Rahman, M. H. ., Haque, M. A., Rahman, M. S. ., Ali, M. S. ., & Sultana, S. . (2024). Nutritional Management in Patients with Chronic Kidney Disease: A Focus on Renal Diet. Asia Pacific Journal of Medical Innovations, 1(1), 34-40.
14. Chowdhury NR, Moname EJ, Al Azad G, Hani U, Nazmin F, Ferdaus F. Interplay Between Malnutrition and Infectious Diseases Insights from a Cross-Sectional Study in Bangladesh. Asia Pacific Journal of Medical Innovations. 2024;1(2):41-7.

15. Azad GA, Moname EJ, Chowdhury NR, Mondal S, Tisa AH, Ferdaus F. Co-Morbidity Landscape in Cancer Patients: Non-Communicable Disease Burden and Trends. Asia Pacific Journal of Medical Innovations. 2024;1(2):48-54.
16. Nazmin F, Roy A, Bushra T, Retina IJ, Arnab KH, Ferdaus F. Exploring the Prevalence and Social Determinants of ADHD and Comorbidities Among Urban School Aged Children in Bangladesh. Asia Pacific Journal of Medical Innovations. 2024;1(2):61-74.
17. Wohid F, Eme FW, Fahim IH, Mim M, Ferdaus F. Work Life Balance and Its Influence on Physical and Mental Health Among Female Teachers of Public University in Bangladesh. Asia Pacific Journal of Medical Innovations. 2024;1(2):68-75.
18. Mondal S, Arnab KH, Retina IJ, Bushra T, Roy A, Tisa AH, Ferdaus F. Mental Health Status and Stress Factors Among Junior Doctors in Public Hospitals in Bangladesh A Cross Sectional Analysis. Asia Pacific Journal of Surgical Advances. 2024;1(2):39-43.
19. Bushra T, Mondal S, Nazmin F, Arnab KH, Tisa AH, Roy A, Ferdaus F. Burden of Peptic Ulcer Disease Among Smoking and Non-Smoking Healthcare Providers A Comparative Cross-Sectional Study in Gazipur, Dhaka. Asia Pacific Journal of Surgical Advances. 2024;1(2):44-50.
20. Rima US, Islam J, Mim SI, Roy A, Dutta T, Dutta B, Ferdaus FF. Co-Infection of Tuberculosis and Diabetes: Implications for Treatment and Management. Asia Pacific Journal of Surgical Advances. 2024;1(2):51-8.
21. Arnab KH, Nazmin F, Mondal S, Tisa AH, Bushra T. Perceptions and Barriers to Breast Cancer Screening Among Women in Slum Areas: A Cross-Sectional Study. Asia Pacific Journal of Surgical Advances. 2024;1(2):59-65.
22. Karmakar S, Brinta MT. Assessing the Impact of Chronic Hypertension on Renal Function: A Cross-Sectional Study. Asia Pacific Journal of Surgical Advances. 2024;1(2):66-71.
23. Dutta B, Dutta T, Rima US, Islam J, Roy A, Mim SI, Ferdaus F. Burden of Antibiotic-Resistant Urinary Tract Infections in Rural Females: Insights from a Cross-Sectional Study in Bangladesh. Asia Pacific Journal of Surgical Advances. 2024;1(2):72-9.
24. Wohid F, Eme FW, Fahim IH, Mim M, Sultana T, Ferdaus F. Assessment of Nutrition Knowledge and Dietary Practices Among Non-Medical Students: A Cross-Sectional Study. Asia Pacific Journal of Surgical Advances. 2024;1(2):80-6.
25. Mengesha, A., Messele, A. & Beletew, B. Knowledge and attitude towards cervical cancer among reproductive age group women in Gondar town, North West Ethiopia. BMC Public Health 20, 209 (2020). https://doi.org/10.1186/s12889-020-8229-4.