

Knowledge Regarding Prevention of Cervical Cancer among Reproductive Age Women in Bote Community, Nawalparasi: A Community-based Cross-sectional Study

Barsha Karki,¹ Neelu Sharma¹, Radha Kumari Shah,³ Prakriti Pokhrel,² Sarmila Rai¹

¹Department of Public Health, Om Health Campus, Kathmandu, Nepal.

²Kathmandu Medical College Teaching Hospital-Kathmandu, Nepal.

³Department of Community Program, Dhulikhel Hospital-Kathmandu University Hospital, Kavre, Nepal.

ABSTRACT

Introduction: Preventable cervical cancer poses a significant threat to the lives of women in their reproductive years in Nepal. Educating women about cervical cancer is crucial in early detection and implementing suitable preventive measures. This study centered on the Bote community and aimed to assess the knowledge of women in terms of preventing cervical cancer.

Methods: A community, cross-sectional study was conducted among the reproductive age group of the Bote community. All women in the reproductive age group (15–49 years) were included from selected wards with 170 respondents. Face-to-face interviews were conducted using semi-structured questionnaires. The data were analyzed in SPSS version 16 for Windows using descriptive statistics.

Results: Out of the 170 respondents, only 48.12% heard about cervical cancer, while 90.6% had a limited understanding of preventive measures. A small proportion of respondents, specifically 7.2%, were familiar with the concept of a pap smear examination, and only 12% were aware of the availability of the HPV vaccine, which effectively prevents cervical cancer.

Conclusions: Women of reproductive age in the Bote community demonstrated a lack of adequate knowledge concerning cervical cancer prevention. Most of the respondents were unaware of the HPV vaccine's accessibility and cervical cancer prevention strategies. Therefore, local and federal governments must prioritize implementing targeted advocacy programs tailored to reach and educate marginalized women in minority communities.

Keywords: *Bote community; cervical cancer; knowledge, reproductive age women.*

INTRODUCTION

Cervical cancer is a deadly non-communicable disease. According to WHO, every two minutes, it takes the life of a woman worldwide, making it the second most common cancer in women aged 15-44. In Nepal, it's the leading cancer among women.¹ The leading cause of cervical cancer is the Human Papillomavirus (HPV), especially HPV-16 and HPV-18.² Early sexual debut, multiple partners, high childbirth rates, smoking, and unhealthy

lifestyle contribute to cervical cancer risk.³

In Nepal, low coverage (2.4%) of cervical cancer screening and limited knowledge of prevention have resulted in high morbidity and mortality rates, making it a major public health concern.⁴ Prevention of cervical cancer is possible through knowledge, hygiene, regular screening, and vaccination.⁵ The Bote community, residing in the southern part of Nepal, faces marginalisation, low literacy, and health and sanitation challenges.^[6-7] This study assesses cervical cancer prevention knowledge

*Correspondence: barsha.karki27@gmail.com

Department of Public Health, Om Health Campus, Kathmandu, Nepal

among reproductive-age women (15-49 years) in Nepal's communities.

The main objective of this study was to assess the knowledge regarding the prevention of cervical cancer in the Bote community among women aged 15-49 years.

METHODS

A community-based cross-sectional study was conducted on women in the reproductive age group residing in the Bote community in Nawalparasi. The study occurred between January 14 and February 12, 2021, following the necessary approvals from the municipality and the ethical committee (Reference No. PHIRC 201/2021). Written consent was obtained from all participants before collecting data.

Individuals who expressed unwillingness to participate and women from communities other than the Bote community were excluded from the study. The research specifically focused on women of reproductive age in the Bote community. Conveniently, five wards (1, 2, 13, 15, and 17) with a significant Bote population were selected for the study. In these wards, 170 women of reproductive age were identified, and all 170 respondents were included in the research.

Data collection involved conducting face-to-face interviews utilizing semi-structured questionnaires. To ensure accuracy, all questions were coded, and comprehensive checks were conducted to ensure the completeness of the data collection process. The study's dependent variable focused on knowledge pertaining to cervical cancer, while the independent variables encompassed various socioeconomic and demographic characteristics (including age, religion, ethnicity, educational status, occupation, age of marriage, menarche, husband's education, husband's occupation, and household income). The knowledge-related inquiries encompassed various aspects, such as identifying risk factors for cervical cancer, recognizing its signs and symptoms, understanding the diagnostic procedures for cervical cancer, being aware of the available treatment options, and having knowledge about the HPV vaccine. Knowledge consisted of a total of 25 points. Each correct answer was given 1 score and 0 score for an incorrect answer. The score was categorized as adequate knowledge (score of equal > 50%)and inadequate knowledge (score < 50%).

The questionnaire was translated into the Nepali language. To ensure reliability, a data pretest was conducted on a representative study population, constituting 10% of the total sample size. Based on the feedback and responses received during the pretest, further edits and modifications were made to the questionnaire. The data collected was entered into SPSS version 16 for analysis. A descriptive analysis was performed, and the findings were presented using

frequency and percentage to summarise the results.

RESULTS

Only 48.2% of 170 respondents were aware of the risk factors for cervical cancer; the majority (61.9%) thought having multiple sexual partners was a high-risk factor, while 14.3% thought consuming many OCPs was a low-risk factor. Only 48.6% of those women knew that bleeding during coitus is one of the primary indicators of cervical cancer, and only 38.6% of those women were aware of the signs and symptoms of cervical cancer. Only 39.8% of people are aware of ways to prevent cervical cancer. Most women (53.6%) agreed that maintaining excellent genital health is essential, and 26.5% thought early detection of cervical cancer was possible.

Table 1. Knowledge on cervical cancer (n=83)

Knowledge on Cervical Cancer	n (%)
Heard about risk factors of cervical cancer	
Yes	40 (48.2)
No	43 (51.8)
Risk factors of cervical cancer**	
More than one sexual partner	13 (61.9)
Tobacco consumption	6 (28.6)
Infection through HPV	2 (9.5)
STI	3 (14.3)
Increasing age	2(9.5)
Multiple abortion	4 (19)
High intake of OCPs	3 (14.3)
Aware about cervical cancer sign and symptoms	
Yes	32 (38.6)
No	51 (61.4)
Sign and Symptoms of cervical cancer	
Irregular vaginal bleeding	5 (14.3)
Vaginal discharge	13 (37.1)
Low back pain	13 (37.1)
Pain during coitus	2 (5.7)
Bleeding during coitus	17 (48.60)
Heard about Prevention of cervical cancer	
Yes	50 (39.8)
No	33 (60.2)
Prevention of cervical cancer	
Avoiding multiple cancer	13 (46.4)
Maintain good genital hygiene	15 (53.6)
Sexual absenteeism before marriage	1 (3.6)
Using condom during early sexual intercourse	1 (3.6)
Going for screening test	1 (3.6)
Avoiding early marriage	2 (7.1)
No alcohol intake	3 (10.7)
No tobacco intake	4 (14.3)
Cervical cancer diagnosed at early stage	
Yes	22 (26.5)
No	61 (73.5)

Of 83 women, 7.2% had heard about the pap smear test, 2.5% believed it would be used to diagnose cervical cancer, and 9.6% said they did not know how to diagnose it. Most women (61.4%) said they do not know how to treat cervical cancer, and the fewest (8.4%) said antibiotics could be used to treat it. Regarding vaccines, only 12% know that cervical cancer has a vaccine.

Table 2. Knowledge on the treatment of cervical cancer (n=83)

Knowledge on treatment	n (%)
Heard about pap smear test	
Yes	6 (7.2)
No	77 (92.8)
Ways to diagnose cervical cancer (n=22)	
Pap smear test	3 (2.4)
Gynaecological examination	11 (13.3)
Do not know	8 (9.6)
Treatment option for cervical cancer (n=83)	
Surgery	23 (27.7)
Chemotherapy	1 (12)
Antibiotics	7 (8.4)
I do not know	51 (61.4)
Others	1 (1.2)
Heard about HPV Vaccine	
Yes	10 (12)
No	40 (48.2)
I do not know	33 (39.8)

Out of 170 respondents, 90.6 % of women have insufficient knowledge about cervical cancer whereas 9.4% have adequate knowledge.

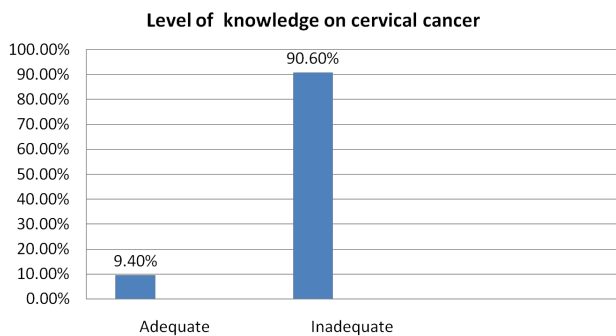


Figure 1. Level of knowledge on Cervical cancer (n=170)

In this study, 61.2% of respondents were under 30, and 97% were Hindu. The vast majority (65.3%) of respondents are literate. Regarding marital status, 80% of the population is married, with 65.4% marrying before 17.

Homemakers account for 67.1% of all respondents. Most total respondents (67.6%) have a monthly household income of less than or equal to Nrs. 16,300.

Table 3. Socio-demographic characteristics (n=170)

Characteristics	n(%)
Age of the respondent	
Less than 30 years	104 (61.2)
More than 30 years	66 (38.8)
Religion	
Hindu	165 (97)
Non-hindu	5 (3)
Education of respondent	
Illiterate	59 (34.7)
Literate	111 (65.3)
Marital Status	
Married	136 (80)
Unmarried	34 (20)
Age at marriage (n-136)	
Less than and equal to 17 years	89 (65.4)
More than 17 year	47 (34.6)
Occupation	
Homemaker	114 (67.1)
Other than house maker	56 (32.9)
Household monthly income (NRs)	
Less than or equals to 16300	115 (67.6)
More than 16300	55 (32.4)

DISCUSSION

There was a significant association between the socio-demographic variable and respondents' knowledge about preventing cervical cancer. This study revealed that among 170 reproductive-age women of the Bote community, only 48.82% of respondents had heard about cervical cancer. Among them, 50.6% said physical hygiene is essential, and 97.6% said that genital hygiene is also crucial for preventing cervical cancer. Also, 7.2% of respondents had heard about the pap smear test. The study conducted in the Rukum District of Nepal found that among 600 reproductive-age women, 77.5% of respondents heard about cervical cancer, and 7% are aware of pap smear tests. ⁷ When we compare the two studies, we notice a commonality in the respondents' knowledge of the pap smear test.

This study found that 90.6% of respondents had inadequate knowledge about preventing cervical cancer, and 48.2% had heard about the risk factors of cervical cancer. On preventive measures, 39.8% said that cervical cancer could be prevented. Among them, 46.4% of respondents said avoiding multiple sexual partners is the way to prevent cervical cancer, and 5.6% said it is preventable by maintaining good genital hygiene. Also, 3.6% said using condoms, and 3.6% said going for a screening test (Pap smear test) can prevent cervical cancer. In addition, there was a statistically meaningful relationship between knowledge and variables, i.e.,

education, occupation, monthly income, marital status, and age of marriage and knowledge in the study. A similar study was done on female students of Little Angels College of Management in Lalitpur, Nepal, in 2019 showed 95% of respondents had insufficient knowledge about cervical cancer, and 35% had average knowledge about cervical cancer risk factors. Also, 11.3% of respondents knew about the HPV vaccine.⁸ However, this study had no statistically significant relationship between knowledge and variables such as age, religion, ethnicity, family income, smoking, and sexual practice.

The study's limitations are that it focused on a minority ethnic group, so its findings cannot be applied to other populations. Additionally, most of the sample consisted of uneducated and unemployed women, which might affect the results. Furthermore, repeated pre-testing was not performed to ensure the study's reliability.

CONCLUSIONS

Findings indicate that women of reproductive age in the Bote community have insufficient knowledge about cervical cancer prevention. The majority of respondents were unaware of the accessibility of the HPV vaccine and strategies for preventing cervical cancer. Consequently, it is essential for local and federal governments to prioritize the implementation of targeted advocacy programs designed to educate and reach marginalized women in minority communities.

ACKNOWLEDGEMENT

Not applicable

CONFLICT OF INTEREST

None

FUNDING

This study was funded with the authors' own contributions

REFERENCES

1. Shah V, Vyas S, Singh A, Shrivastava M. Awareness and knowledge of cervical cancer and its prevention among the nursing staff of a tertiary health institute in Ahmedabad, Gujarat, India. *Ecancermedalscience*. 2012;6:270.
2. Bhattacharjya H, Sarkar M, Luwang N. Knowledge and practice regarding prevention of cervical cancer among women attending a tertiary care centre of Tripura. *International Journal of Community Medicine and Public Health*. 2015;2(2):176.
3. Touch S, Oh J-K. Knowledge, attitudes, and practices toward cervical cancer prevention among women in Kampong Speu Province, Cambodia. *BMC Cancer*. 2018;18(1).
4. Gyawali B, Keeling J, van Teijlingen E, Dhakal L, Aro A. Cervical cancer screening in Nepal: ethical considerations. *Medicolegal and Bioethics*. 2015:1.
5. Rk SA, Janani L, Hussain MA, Akoijam BS, Romola P. Awareness of cervical cancer and its prevention among women of reproductive age group (15-49 years) in Bishenpur District, Manipur: A cross-sectional study.
6. Khand BK. *Livelihood Strategy of Bote Community*. 2016.
7. Bathija G, Mallesh S, Gajula M. A study on awareness of cervical cancer among women of reproductive age group in urban slums of old Hubli, Karnataka, India. *International Journal of Community Medicine and Public Health*. 2016:2579-83.
8. K.C R, Giri R. Knowledge regarding cervical cancer among undergraduate female students at a selected college of Lalitpur, Nepal. *Can Oncol Nurs J*. 2019;29:184-8.