Awareness Regarding Cervical Cancer among Reproductive Age Women Residing in Nuwakot District

Bajracharya SL, Chalise P

Department of Nursing and Midwifery Program

Dhulikhel Hospital, Kathmandu University Hospital,

Kathmandu University School of Medical Sciences,

Dhulikhel, Kavre, Nepal.

Corresponding Author

Siddhi Laxmi Bajracharya

Department of Nursing and Midwifery Program

Dhulikhel Hospital, Kathmandu University Hospital,

Kathmandu University School of Medical Sciences,

Dhulikhel, Kavre, Nepal.

E-mail: bajracharyasiddhilaxmi@gmail.com

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ABSTRACT

Background

Cervical cancer is the most common malignancy among Nepalese women and it is main cause of death among reproductive age women in Nepal.

Objective

The objective of this study was to find out awareness regarding cervical cancer among reproductive age women residing in Nuwakot district.

Method

A descriptive cross-sectional study was conducted to assess the awareness about cervical cancer among reproductive age women of Nuwakot district from April to May 2021. A total of 190 respondents were interviewed using structured questionnaire. Descriptive and inferential analysis were conducted using SPSS version 23 not licenced but trail version.

Result

Among 190 reproductive age women, the mean age was 33.37±8.39 (Mean±SD). Nearly 10% of respondents answered the meaning of cervical cancer correctly. Among them 30% of respondents did not know about the cause. Similarly, only 7.4% of respondents answered that HPV Infection was risk factor, 2.6% of respondents knew about appropriate age for HPV vaccine. However, nearly 19% of respondents answered that cervical cancer screening was needed for sexually exposed women. There was a significant difference in mean of awareness among different ethnicity (p=0.014), educational level (p=0.001) and there was no significant difference in mean of awareness among different age group, marital status, occupation, family history of cervical cancer and smoking habit.

Conclusion

Most of the reproductive age women were unaware about meaning, causes, risk factors and preventive measures of cervical cancer. So, there is a need for the implementation of awareness programs on cervical cancer and its preventive measures in this community.

KEY WORDS

Awareness, Cervical cancer, Reproductive age women

INTRODUCTION

Cervical cancer is the most common cause of cancer related death among women in developing countries and develops in a woman's cervix (the entrance to the uterus from the vagina). It is a preventable and curable disease if detected early and adequately treated.[1] Furthermore, it is also the fourth most commonly occurring cancer in women globally and the eighth most commonly occurring cancer overall.[2] Worldwide approximately 570,000 cases of cervical cancer were diagnosed and 311,000 deaths from the disease occurred in 2018.[1] Around 83% of all the new cases of cervical cancer and 85% of all the deaths occur in the developing countries.[2] Cervical cancer continues to be a major public health problem affecting middle-aged women, particularly in less-resourced countries.[3] In Nepal, it is the most common cancer among women with the incidence of 18.9% and the most frequent cancer among women between 15 and 44 years of age.[4] Every year 2,332 women are diagnosed with cervical cancer and 1,367 women die from the disease.[4] Cervical cancer continues to be a significant health threat to women.[3]

Nepal Government has prioritized prevention of cervical cancer through screening but still coverage rate for cervical cancer screening service is very low due to the lack of awareness among reproductive women on cervical cancer. Several studies have been conducted to assess level of knowledge on cervical cancer in Nepal but most of them are hospital based or done in urban settings. So, this study was conducted to assess awareness regarding cervical cancer among reproductive women of rural area of Nepal where the major health issues are unaddressed due to several reasons.

METHODS

The descriptive cross sectional study was conducted in Likhu rural municipality of Nuwakot district from 11th April to 1st May 2021. A total of 190 reproductive age women (from 15-49 years) were conveniently included after ethical approval from IRC-KUSMS. Formal permission for the study was taken from the concerned authorities and written informed consent was taken from each respondent before data collection. Questionnaire was prepared by a study team with literature review, which was translated in Nepali language. The tool was pretested among women of reproductive age of Dhulikhel Municipality after which corrections were done accordingly before its use in real community setting. Convenience sampling was used in the study. Respondents were interviewed face to face using questionnaire consisting of sociodemographic variables of the respondents, followed by total 32 questions (including multiple responses) to assess the level of awareness which included definition, causes, risk factors, sign and symptoms and preventive measure of cervical cancer. For analysis, correct responses were scored as 1 and 0 for incorrect one with the total score of 32. Data analysis was performed using Statistical Package for the Social Sciences (SPSS) Version 23. Descriptive statistics frequency, percentage and mean were used to describe respondent's socio-demographic variables and awareness related to cervical cancer. Inferential statistics such as independent t-test and ANOVA test was also performed to determine difference in mean between sociodemographic variables of the respondents and awareness on cervical cancer.

RESULTS

Slightly more than half (52.1%)of the respondents were between 33 to 49 years with mean age of 33.37±8.39 (Mean ± SD) and 92.1% of them respondents were married. Furthermore, 52% were from Brahmin/Chhetri ethnicity and 58.9% were involved in agriculture as their main occupation (Table 1).

Table 1. Socio demographic variables of respondents n= 190

Characteristics	Number Frequency (%)
Number Frequency (%)	
Age in years	
15-32	91 (47.8)
33-49	99 (52.1)
Min-Max (Mean ±SD): 15-49 (33.37± 8.39)	
Marital Status	
Married	175 (92.1)
Unmarried	14 (7.4)
Widow	1 (0.5)
Ethnicity	
Brahmin/Chhetri	99 (52.1)
Janajati	69 (36.3)
Dalit	22 (11.6)
Education	
Illiterate	44 (23.2)
Informal	38 (20.0)
Primary	44 (23.2)
Secondary	40 (21.0)
Higher secondary	24 (12.6)
Occupation	
Housewife	54 (28.4)
Agriculture	112 (58.9)
Business	7 (3.7)
Service	6 (3.2)
Daily wages	9 (4.7)
Student	2 (1.1)
Smoking Habit	
Yes	23(12.1)
No	167 (87.9)
Family history of Cervical Cancer	
Yes	4 (2.1)
No	186 (97.9)

Regarding the awareness on cervical cancer, 45% of the respondents mentioned that cervical cancer is the wound in cervix and whereas only 9.5% answered correctly as the abnormal growth of cells in cervix. Nearly 51% of respondents stated cervical cancer as the bacterial infection, and 7.4% answered HPV infection as risk factor of cervical cancer. Similarly, 31.1% answered any unusual vaginal discharge as the signs and symptoms of cervical cancer (Table 2).

Table 2. Respondents awareness on meaning, causes, risk factors and symptoms of cervical cancer (n=190)

Variables	Frequency (%)
Meaning of cervical cancer	
Wound of cervix	85 (44.7)
Pain in the cervix	36 (18.9)
Abnormal growth of cells in the cervix*	18 (9.5)
Swelling in the cervix	43 (22.6)
Do not Know	8 (4.2)
Causes	
Virus*	27 (14.2)
Bacterial infection	96 (50.5)
Poor nutrition	10 (5.3)
Do not know	57 (30.0)
Risk factors**	
HPV infection	14 (7.4)
Early marriage	89 (46.8)
Multiple sex partners	51 (26.8)
History of sexually transmitted diseases	20 (10.5)
Prolonged use of oral pills (> 5 years)	8 (4.2)
Poor menstrual hygiene	63 (33.2)
Obesity	5 (2.6)
Unmarried	1 (0.5)
Do not know	40 (21.1)
Symptoms**	
Bleeding between menstruation	33 (17.4)
Excessive bleeding during menstrual periods	44 (23.2)
Bleeding after sexual intercourse	13 (6.8)
Painful intercourse	19 (10)
Any unusual discharge during periods	59 (31.1)
Menopausal bleeding	28 (14.7)
Do not know	56 (29.5)

*Correct response **Multiple response

Regarding the prevention of cervical cancer, 73.2% of respondents knew it is a preventable disease. For the preventive measures of cervical cancer, 24.7% knew about maintaining perineal hygiene and 28.4% about regular screening. Similarly, 87.4% of respondents have not heard about availability of vaccine for cervical cancer. Only 18.9% of respondent on the necessity of cervical cancer screening for sexually active women among which only 41% of them were unaware about the appropriate time interval for screening. However, 38.4% of the respondents had no idea regarding the best time for doing screening test (Table 3).

Table 3. Respondents awareness on preventive measures of cervical cancer (n=190)

Variable	Frequency (%)
Is the cervical cancer preventable	
Yes	139 (73.2)
No	16 (8.4)
Do not know	35 (18.4)
Preventive measures of cervical cancer**	
Avoiding multiple sex partner	50 (26.3)
Avoiding multiple pregnancies	31 (16.3)
Avoiding early marriage	43 (22.6)
Avoiding smoking	20 (10.5)
Avoiding long term use of OCP	13 (6.8)
Maintaining good perineal hygiene during menstrual period	47 (24.7)
Getting vaccination against HPV infection	4 (2.1)
Regular screening of CX	54 (28.4)
Do not know	36 (18.9)
Heard about HPV vaccine	
Yes	24 (12.6)
No	166 (87.4)
Appropriate age for giving HPV vaccine (n=24)	
9-26 years*	5 (2.6)
40-45 years	16 (8.4)
Above 60 years	3 (1.6)
Availability of cervical screening test	
VIA	7 (3.7)
PAP smear test	1 (0.5)
HPV DNA test	5 (2.6)
Colposcopy	2 (1.1)
Do not know	175 (92.1)
Type of women needs to do cervical screening	
Women who are sick	66 (34.7)
Sexually exposed women*	36 (18.9)
Above 65 years	37 (19.5)
Do not know	51 (26.8)
The appropriate time interval for cervical screening test	
Yearly	97 (51.1)
2 years	9 (4.7)
3-5 years*	8 (4.2)
Do not know	76 (40.0)
The best time for doing cervical screening test	
During menstrual period	7 (3.7)
Immediately after menstrual period	5 (2.6)
10-20 days after first day of last menstrual period*	105 (55.3)
Do not know	73 (38.4)
*Correct Response **Multiple response	

Table 4. Mean difference between socio-demographic variables and awareness on cervical cancer (n=190)

Variables	N	Awareness (Mean±SD)	p-value
Age			
15-32 years	91	7.69±3.36	0.930
33-49 years	99	6.43±3.04	
Marital status			
Married	175	7.05±3.26	0.977
Unmarried	14	6.86±3.39	
Widow	1	7.00	
Ethnicity			
Brahmin/Chhetri	99	7.52±3.18	0.014*
Janjati	69	6.89±3.13	
Dalit	22	5.32±3.47	
Education			
Illiterate	44	5.57±2.56	0.001*
Informal	38	6.32±2.04	
Primary	44	7.09±3.31	
Secondary	40	8.05±3.66	
Higher secondary	24	9.08±3.69	
Occupation			
Housewife	54	6.22±3.16	0.304
Agriculture	112	7.24±3.23	
Business	7	7.57±4.39	
Service	6	8.67±2.42	
Daily wages	9	7.67±3.64	
Student	2	8.0±1.41	
Family history			
Yes	4	7.75± 2.99	0.906
No	186	7.02± 3.26	
Smoking habit			
Yes	23	4.83±2.25	0.455
No	167	7.34±3.26	

*P value < 0.05

There was a significant difference on awareness on cervical cancer according to the ethnicity (p=0.014) and educational level (p=0.001) (Table 4).

DISCUSSION

This study examines the awareness on cervical cancer among reproductive women in rural community of Nuwakot, Nepal. The study demonstrates the lack the knowledge related to cervical cancer among the respondents. There was significant difference in mean of awareness among different ethnicity and educational status.

One in ten women did not know the meaning of cervical cancer as an abnormal growth of cells in the cervix. Several studies conducted in different part of Nepal also shows similar findings with inadequate knowledge on cervical cancer.[5,6] Studies have shown that it is higher in other part of the world In comparison to Nepal.[7,8] One of the review in India has highlighted that early age of marriage, non-maintenance of personal hygiene, and multiple sexual partners were reported as major risk factors for developing cervical cancer.[9] In this study also most of the respondents were aware on different risk factors as early marriage (46.8%), poor menstrual hygiene (33.2%) and multiple sex partner (26.8%) whereas the least responded risk factors were HPV infection (7.4%) and prolonged use of oral pills (4.2%). The finding was contradicting with the study conducted in Jumla, Attarkhel Jorpati, Kathmandu, Budanilkantha, Kathmandu and Chitwan which revealed early marriage, poor menstrual hygiene, multiple sexual partner, HPV infection and prolonged use of oral pills.[5,6,10,11]

Similarly, the most responded signs and symptoms in this current study were any unusual discharge during menstrual period (31.1%), excessive bleeding during menstrual period (23.2%) and the least responded signs and symptoms was painful intercourse (10%). This finding also contradicts study carried out in Attarkhel Jorpati, Kathmandu.[10]

In this study, the most responded preventive measures of cervical cancer were regular screening of cervix (28.4%), avoiding multiple sex partner (26.3%), avoiding early marriage (22.6%) , avoiding multiple pregnancies (16.3%) and the least responded was getting vaccination against HPV infection (2.1%). These findings also contradict with study conducted in Jumla and Attarkhel Jorpati, Kathmandu.[5,10] Similarly, 14.2% of respondents stated that the virus is the causative organism of cervical cancer in contradictory to the study conducted in Kathmandu.[6] The finding of the present study reveals that there were significant association between ethnicity (p= 0.014), level of education (p=0.001) with cervical cancer awareness. This finding was contradicting with the study conducted in Western region Jumla and Budanilkantha, Kathmandu of Nepal.[5,6] Caste system in Nepal stratifies population into different groups according to which, they are classified as higher and lower within the group. The so called higher caste like Brahman/Chettri are more privileged whereas other are underprivileged which also influences the participation in intervention programs.[12,13] Regarding the level of education and awareness on cervical cancer; students with higher education might have more access to different mass-medias that may increase their awareness level towards cervical cancer and its prevention measures. Thus, health education and health promotion programs related to cervical cancer prevention measures are more important in rural areas.

Cervical Cancer is the fourth most common cancer among women in the world which is higher in low and middle-income countries.[14] Cervical screening is lower in rural areas of the Nepal as compared to urban areas.[15] Similarly, this study also shows the lower level of knowledge related to cervical cancer among women in rural areas which is

similar to other studies in other countries.[16] As the study was performed in a single ward of Nuwakot District, the finding may not be generalizable for the whole population. Hence, it is necessary to provide health education and awareness campaign regarding cervical cancer in rural areas for proper prevention and utilization of the services. Program should be more focused among women without formal education.

CONCLUSION

Even though the study was limited within the rural areas of Nuwakot, most of the women within the reproductive age were unaware about the cervical cancer. Awareness on cervical cancer was significantly associated with ethnicity and level of education.

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