CERVICAL CANCER AND ITS SCREENING: A CROSS-SECTIONAL STUDY AMONG MARRIED WOMEN IN SANKHU, KATHMANDU

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ABSTRACT

Introduction

Cervical cancer ranks as the most frequent cancer among women between 15 and 44 years of age in Nepal. It is one of the preventable cancer. The effectiveness of cervical cancer screening depends to a great extent on the level of awareness.

Objective

The objective ofstudy is to explore the knowledge regarding cervical cancer and its screening and use of pap smear test as a screening tool amongst the married women in Sankhu, Kathmandu.

Methodology

A descriptive, cross-sectional study was conducted in April 2017 using interview guided questionnaire. One hundred and ten married women aged 30-60 years were included in the study to assess knowledge regarding cervical cancer and its screening. Among 110, 85 were eligible for screening tests but only 65 consented and participated in pap smear tests. Multiple regression analysis was used to find out the association of knowledge and practice of cervical cancer and its screening with various variables.

Results

Out of 110 participants, 54.5% belong to age groups 30-40 and mean age was 41.50years. Though,62.5% knew about cervical cancer and 26.8% knew about pap smear test, only 22.7% participants had undergone cervical cancer screening test previously.Multivariateregression analysis showed that the lower education level was significantly associated withpoor knowledge on cervical cancer (Odd ratio: 1.71, 95% Confidence interval 1.10-2.66; p=0.01) and poor practice of its screening (Odd ratio 1.92, 95% Confidence interval 1.27-2.89; p=0.00).

Conclusion

The study reveals that education level has significant effect on knowledge and practice of screening tests.

KEYWORDS

Cervical cancer, Married women, Pap smear test

INTRODUCTION

Cervical cancer ranks as the most frequent cancer among women between 15 and 44 years of age in Nepal. About 2.0% of women in the general population are estimated to harbour cervical Human Papilloma Virus(HPV)-16/18 infection at a given time, and 80.3% of invasive cervical cancers are attributed to HPVs 16 or 18.[1-3]

It is one of the preventable cancer which can be prevented by early detection and treatment. Cervical cancer screening programmes such as Pap smear test, visual inspection with acetic acid application(VIA) and HPV screening test are established as the most effective approach to control cervical cancer.[4,5] The effective age for the pap smear test is considered as 15-44 years.[6] However, the screening programmes is underutilized in most of the developing countries, including Nepal.[7] The main barriers to underutilization of screening tests are poor information on availability, accessibility screening tests, lack of affordability of screening tests (pap smear test, HPV vaccine,VIA test), unavailability of the screening tests at most of the health centers.[7-9,] Numerous studies have been conducted in different countries to evaluate the awareness level of cervical cancer, contributing and risk factors, cervical screening test, the attitude towards it as well as the preventative practices.[10-12]

The effectiveness of cervical cancer screening depends to a great extent on the level of awareness. Therefore, this study is conducted with the aim to gather information regarding the knowledge and practice of cervical cancer screening in women residing in one of the ancient town of Kathmandu district named Sankhu.

Objectives of the study:

- To assess knowledge on cervical cancer and pap smear tests, HPV vaccine
- To assess practice on pap smear test
- To associate knowledge of cervical cancer and practice of cervical cancer screening with socio-demographic variables.

METHODOLOGY

A descriptive cross-sectional research design was used to assess knowledge and practice regarding cervical cancer and its screening among married women of Sankhu municipality. The study was conducted in April 2017. Sample size 110 was estimated by using formula($n=z^2pq/d^2$). All the married women meeting inclusion criteria were included in the study till estimated sample size was met. One hundred and ten married women participated in interview related to cervical cancer and its screening. Though 85 were eligible for the pap smear test, it was performed among 65 participants and 20 were excluded. Exclusion criteria were stated as age groups below 30 and above 60 years, pap smear test done within 3 years, women on menstruation and postnatal period. The study was conducted in Cervical cancer screening camp as organized by CISWA, Shankarapur Hospital in coordination with the local community of Sankhu. Semi structure questionnaire consisted of 3 parts: part one as information related to socio-demographic data, part two as knowledge on cervical cancer, pap smear test and HPV vaccine and part three as practice relate to cervical cancer screening (pap smear test, VIA test). Permission was taken from the Chairperson of Sankhu, Municipality. Verbal and written consent was taken from each participant before conducting interview and Pap smear test.Confidentiality of the respondents was maintained. The study was approved by research committee of Shankharapur hospital and formal permission was taken from each concerning organization. The data collected from the interview was coded and data analysis was done by using SPSS version 22. Descriptive (mean, standard deviation) and inferential analysis (regression analysis) were used for data analysis.

RESULTS

The mean age of the participants was 41.50 years, 46(41.8%) were of Brahman ethnic group, 93(83.0%) of the participants were married for more than 9 years, 35.5(39.1 %) had 3 children, 44(40.0%) were illiterate and more than half 64(58.9%) were engaged in household work (Table 1).

Table 1: Socio-demographics variables n=110

Variables	Frequency (Percentage)
Age (in years)	
30-40	60(54.5)
41-50	29(26.4)
51-60	21(19.1)
Ethnicity	
Brahmin	46(41.8)
Chhetri	41(37.3)
Janajati*	23(20.9)
Educational level	
Illiterate	44(40.0)
Primary	23(20.9)
Secondary	24(21.8)
Higher secondary	11(10.0)
Bachelor	8(7.3)
Occupation	
Home maker	64(58.9)
Service	15(13.4)
Business	13(11.6)
Agriculture	18(16.3)
Duration of Marriage	
3-6 years	8(7.3)
6-9 years	10(9.1)
≥ 9 years	92(83.6)
Parity	
No child	8(7.3)
1-2 children	20(18.2)
3 children	43(39.1)
≥ 3 children	39(35.5)

Mean age ±SD 41.50±9.18

*(Magar/Gurung/Tamang)

Thirty two (45.8%) stated that family member/friends provided information about cervical cancerand16 (53.3%) stated that health personnel provided information about pap smear test. (Table 2).

Table 2: Participants' Information about Cervical Cancer and its Screening (n = 110)

Variable	Frequency (Percentage)
Heard about cervical cancer	70 (62.5)
Sources of information*	
Family member/friend	32 (45.8)
Health professional	10 (14.3)
Media	25(35.7)
School	3 (4.3)
Heard about pap smear test	30 (26.8)
Sources of information*	
Family member/friend	5 (16.7)
Health professional	16 (53.3)
Media	9 (30.0)
Heard about HPV vaccine	5 (4.5)

*multiple response questions

Values are presented as correct response

Variousquestions related to cervical cancer like causes, risk factors, sign and symptoms, preventive measures are shown in Table 3.

Table 3: Participants' Knowledge regarding Cervical Cancer n=110

Variables	Frequency (Percentage)
Causes	13(11.8)
Risk factors*	
Family history	29(53.7)
Poor hygiene	24(44.4)
Early pregnancy	15(27.8)
Having multiple sex partners	15(27.8)
Early marriage	12(22.2)
Bearing more children	10(18.5)
Tobacco smoking/chewing	10(18.5)
Poor nutrition	9(16.7)
Prolong use of Contraceptives	4(7.4)
Sign/Symptoms*	
Abnormal vaginal bleeding	22(61.1)
Pain in lower abdomen	15(41.7)
Abnormal/offensive vaginal discharge	14(38.9)
Bleeding after intercourse	7(19.4)
Abnormal bleeding after menopause	5(13.9)
Menstrual bleeding longer and heavier	4(11.1)
Cervical cancer can be prevented	39(35.5)
Preventive Measures*	
Personal hygiene	19(59.4)
Pap Smear test	9(28.1)
No smoking	7(21.9)
Prevention and treatment of urinary tract infection	6(18.8)
Prevention by HPV vaccination	4(12.5)
No early marriage	3(9.4)
No early pregnancy	3(9.4)

***multiple response question**

Values are presented as correct response

The knowledge on pap smear test and HPV vaccine are stated in table 4.

Table 4: Participants' Knowledge on Pap smear test and HPV vaccine n=30

Variable	Frequency (Percentage)
Purpose of Pap smear test	30(27.3)
Appropriate time for Pap smear test	12(10.9)
Appropriate age for Pap smear test	4 (3.6)
Right Interval between Pap smear test	2 (1.8)
Appropriate age for HPV vaccine	5 (4.5)
Course of HPV vaccination	2 (1.8)

Values are presented as correct response

Table 5: Participants' Practice on screening for Cervical Cancer n=110

Variable	Frequency (Percentage)
Screening for cervical cancer[a]	
Yes	25(22.73)
No	85 (77.27)
Type of test done[b]	
Pap smear test	20(80)
VIA test	5(20)

[a] n=70

[b] n=25

Table 6: Socio-demographic characteristics that correlate to the knowledge about cervical cancer and practice of screening tests n=110

Variables	Knowledge (>50%)		Practice(Ever screen)	
	OR(CI)	Pvalue	OR(CI)	Pvalue
Age >30 years	1.17(0.46-2.96)	0.73	1.04 (0.46-2.37)	0.91
Ethnicity	1.25(0.54-2.90)	0.59	1.05 (0.49-2.24)	0.90
Religion	0.35(0.04-2.62)	0.31	0.32(0.07-1.47)	0.14
Numberof children	0.58(0.28-1.21)	0.15	2.11 (0.94-4.76)	0.06
Educational Level	1.71(1.10-2.66)	0.01*	1.92 (1.27-2.89)	0.00*
Occupation	0.97(0.55-1.70)	0.93	0.73(0.43-1.24)	0.24
Family type	0.57 (0.22-1.51)	0.26	0.42 (0.16-1.07)	0.07

***significant at p<0.05**

DISCUSSION

The present study was conducted among married women to assess knowledge and practice on cervical cancer and its screening and also to perform Pap smear test among the participants. Among 110 participants, only 70(62.5%) participants had heard about the cervical cancer and rest were unknown about cervical cancer. Similar, finding was reported by the study done in Nepal, Ethopia which showed that majority (78.7%) heard about it.[10,11]Similar, finding was

reported in North Korea.[12]The reason for the majority of the participants heard about cervical cancer may be the awareness programs conducted previously in Sankhu. Contrast to it, majority of the participants (88.4%) were unknown about the cause of cervical cancer. This finding was consistent with that found in similar studies done in Kenya and Nepal.[13,14,15]

The most common risk factor was found to be family history (53.7%) in this study. But, contrast finding was reported in the study done in India which showed multiple sexual partners as major risk factor.[16]

Abnormal vaginal bleeding was the commonly (61.1%) mentioned symptom among study participants. This finding is similar to study done in India.[16]When asked about whether cervical cancer is preventable or not: 34.8% of the participants said cervical cancer is preventable. Similar finding was reported by study conducted in Nigeria where 30.0% replied cervical cancer as preventable in nature. [17]

In our study, 26.8% had heard of Pap smear test as cervical cancer screening test. But this was contrast to that found in study done in Kathmandu, Nepal where 68.6% have heard of cervical cancer screening.[18]

To our questions regarding the knowledge of the Pap smear test, only 10% knew the meaning, 27.3% replied on its purpose, 10.9% identified the best time for the test and only 3.6% knew the appropriate age for test. Similar findings were reported by Shrestha J et.al, where 16.57% knew the meaning, 10.36% knew about eligibility of screening, and only 1.58% knew about screening interval.[18] Contrary to this finding was the study of Shrestha and Dhakal where 25.0% knew the correct age to start screening.[19]Among them, 4.5% and 18.2% had VIA (visual inspection with acetic acid) and Pap smear test done. The finding is inconsistent with the finding of study done in Ruvuma which showed 2.9% and 11.3% mentioned Pap smear and VIA as the screening test for cervical cancer respectively.[20]

Only 4.5% of the respondents were aware about the HPV vaccination and only 1.8% knew the dose of vaccine. Similar finding was noted in a study done in Nepal and India where only 3% and 2.8% of the women had heard of HPV vaccine.[18,19,21]

On asking about ever screen for cervical cancer, 22.73% had undergone screening. Contrasts to it, 32.7% were screed for cervical cancer as reported in the study done in Nigeria.[22]Another study done in Mangalore reveled that only 7.2% had ever undergone pap smear test which is contrast to the finding of the study.[23]

Among eligible participants 85(77.27%), majority 65(76.5%) consented and participated for the Pap smear testing. This was contrast with the study done in Southeast Nigeria where Screening up take was only 0.6% and 10.36% were eligible in the study done in Nepal.[13,16,17,23]

On multi variant regression analysis, educational level was the sole predictor of knowledge regarding cervical cancer and practice of cervical cancer screening ($p<0.05$). It may be because of the exposure of women to the media, health personnel and motivation for better practice. Similar finding was noted in study done in India, Nepal, and Kuwaiti.[16,19,24]

CONCLUSION

The study findings revealed that most of the participants' had inadequate information on cervical cancer and its screening. Though, majority of the women had never gone for pap smear test previously, however, they participated in the cervical cancer screening camp i.e. in pap smear test and results was found to be normal. As mass media was the second common source of information, this could be used to raise the awareness of the women to promote early detection. There is a need for community-based awareness programs to empower the women about cervical cancer and its screening.

RECOMMENDATIONS

This study recommends initiating proper strategies for conduction of awareness programme among the married women on cervical cancer and its screening from the grassroots level. There is need of low costs screening tests or free availability of screening tests in order to prevent cervical cancer.

LIMITATION OF STUDY

Study cannot be generalized as the sample size is small and convenient sampling technique is used.

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CONFLICT OF INTEREST

We declare no conflict of interest.

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