



ORIGINAL RESEARCH ARTICLE

AWARENESS ON CERVICAL CANCER AND PRACTICE OF PAP SMEAR TEST AMONG THE MARRIED WOMEN OF CHANGUNARAYAN MUNICIPALITY

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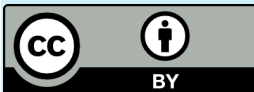
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ABSTRACT

Background: Cervical cancer is the fourth most common cancer among women globally. It can be cured if diagnosed at an early stage and treated promptly. This study aimed to find out the awareness on cervical cancer and practice of Pap smear test among the married women of Changunarayan Municipality.

Methods: A descriptive cross-sectional study design was carried out in Changunarayan Municipality among 115 purposively selected married women aged between 30 to 60 years. The data was collected from 1st July 2021 to 21st July 2021. Data was collected by using semi structure interview schedule through face-to-face interview method. Descriptive as well as inferential statistics was used to describe the findings and measure the association between variables.

Results: Among the total respondents, 52.2% had inadequate level of awareness and 47.8% had adequate level of awareness in cervical cancer. Regarding the practice, only 20.9% of respondents had done Pap smear test. There is no significant association between level of awareness of cervical cancer with practice of Pap smear test, age, educational status, occupation, age at marriage and age at first child birth of the respondents.

Conclusions: It is concluded that women had adequate awareness in cervical cancer however; the practice of performing Pap smear test was low. The level of awareness of cervical cancer did not influence the practice of Pap smear test.

INTRODUCTION

Cervical cancer is a preventable disease, but worldwide it is one of the leading causes of cancer death in women. More than 311, 000 deaths occurred from cervical cancer every year, and more than 85% of these occur in low- and middle-income countries.¹In 2018, 2942 women were diagnosed with cervical cancer and 1,928 died from this disease in Nepal.²The hospital based retrospective study in BP Koirala Memorial Cancer Hospital (BPKMCH) Chitwan from 2012 to 2017, reported that there was total 15,353 (55%) female cancer cases and among them, 3,254 cases were of cervical cancer. Cervical cancer contributed 21.2% of total female cancer cases.³

Cervical cancer could be prevented if detected in its early stages. Pap smear screening could help in early diagnosis of cervical cancer.^{4,5} Cervical cancer screening is recommended for every woman after 30 years of age and at least once in a life time between 30-49 years of age.⁶Many countries have significantly reduced their cervical cancer morbidity and mortality through cervical cancer screening and early treatment.⁷ Pap smear screening has been reported to be a

good method for detecting early cervical cancer, however, its coverage is very low in Nepal.^{2,8}

In Nepal, lack of awareness, cost of the test and unavailability of manpower are few hindering factors for routine screening of cervical cancer. Lack of knowledge of the test was found to be the commonest reason of poor practice of this test.⁹Therefore; the researcher was interested to carry out this study to find out the awareness on cervical cancer and practice of Pap smear test among the married women of Changunarayan municipality of Bhaktapur district.

METHOD

A descriptive cross-sectional study design was used to find out the awareness on cervical cancer and practice of Pap smear test among the married women of Changunarayan Municipality. From this municipality, ward number one and two were selected as study setting purposively. The study population was the married women of 30 to 60 years of age. Screening of cervical cancer is recommended for every woman after 30years of age and until 60 to 65 years of age. Therefore,

this age group is selected for study population. Non-probability purposive sampling technique was used for the selection of sample. Sample size was 115, which was calculated by using Cochran formula, using the prevalence of awareness in cervical cancer⁹ which was 74% with confidence interval at 95% and 8% margin of error. The married women aged 30 to 60 years and willing to participate were included in the study and the women were diagnosed with cervical cancer were excluded from the study.

A semi-structured interview schedule in Nepali language was used for data collection. It consisted of 3 parts: part 1 was related to socio-demographic and obstetric related information; part 2 consisted of questions related to awareness on cervical cancer and part 3 was related to practice of Pap smear test. For awareness items, '1' score was given for each correct response and '0' for incorrect response. Total awareness score was calculated by summing all the items score and further classified into two level on the basis of median value of score (i.e. 12.0) as adequate (equal and above median value) and inadequate (below median value) level of awareness. Validity of the instrument was maintained by reviewing relevant literatures, and consulting with subject experts. Pre-testing of instruments was done among 12 respondents of ward number three of Changunarayan Municipality.

Ethical approval for the study was obtained from Institutional Review Committee of Nepalese Army Institute of Health Science (Reg. No: 299) and written permission for data collection was taken from the authority of ward no. 1 and 2 of Changunarayan Municipality. Written informed consent was obtained from each respondent before data collection. The data was collected by using semi-structured interview schedule through face to face interview method. The researchers themselves collected data from 1st July 2021 to 21th July 2021 (2078/3/17 to 2078/4/6). Collected data were kept in order for coding and checked for its completeness. Then the data was entered in Statistical Package for the Social Science (SPSS) version 16 for windows. Descriptive statistics such as frequency, percentage and mean, median were used to describe the socio-demographic variables, data were analyzed by using descriptive (i.e., frequency, percentage and mean, median) and inferential statistical method (i.e., Chi-square test) and interpreted in tables and texts.

RESULTS

Majority of the respondents (62.6%) belonged to age group 30-40 years with Mean age=40.57(SD±8.886) years. About half of the respondents (49.6%) belonged to Chhetri ethnicity. Most of the respondents (78.3%) could read and write, more than half (63.5%) were house manager, 68.7% got marriage below 20 years of age and 41.7% respondents' age was less than 20 years at the time of their first child birth. Almost all (94.8%) respondents had no history of cervical cancer in the family (Table 1).

Two third of the respondents (66.1%) did not know the meaning of cervical cancer. More than three fourth (77.4%)

of the respondents responded that the poor perineal hygiene is the risk factor of cervical cancer and most of them (82.6%) responded that maintaining good perineal hygiene would help to prevent cervical cancer. Almost all of the respondents (95.7%) answered that early diagnosis and treatment could cure the cervical cancer but only 19.1% responded the correct answer of purpose of Pap smear test i.e.; to rule out cancer of cervix. The highest proportion of the respondents (39.1%) did not know about Human papilloma virus (HPV) could cause cervical cancer. More than one third (38.3%) of the respondents answered that vaccine is not available for prevention of cervical cancer. The highest percentage (48.7%) of the respondents received information about cervical cancer from T.V, radio and newspaper or mass media (Table 2).

Table 1: Socio-demographic characteristics of the respondents

Characteristics	Frequency (%)
Age (in years)	
30-40	72 (62.60)
41-50	25 (21.7)
51-60	18 (15.7)
Mean age=40.57, SD±8.886	
Ethnic group	
Bhramin	7 (6.0)
Chhetri	57 (49.6)
Janjati	50 (43.5)
Dalit	1 (0.9)
Educational status	
Cannot read and write	25 (21.7)
Can read and write	90 (78.3)
If can read and write (n=90)	
Informal	20 (22.2)
Basic level	31 (34.4)
Secondary level	29 (32.2)
Higher level	10 (11.1)
Occupation	
House manager	73 (63.5)
Agriculture	19 (16.5)
Business	13 (11.3)
Service holder	10 (8.7)
Age of women at marriage	
≤20	79 (68.7)
>20	36 (31.3)
Age of women at first child birth	
≤20	48 (41.7)
21-29	63 (54.8)
>30	4 (3.5)
History of cervical cancer in Family	
No	109 (94.8)
Yes	6 (5.2)

Table 2: Awareness regarding risk factors and preventive measure of cervical cancer n=115

Characteristics	Frequency (%)
Risk factors of cervical cancer*	
Poor perineal hygiene	89 (77.4)
Smoking	57 (49.6)
Long-term use of OCPs	73 (63.5)
Marriage or sexual inter-course at very young age	87 (75.7)
Genital tractor sexually transmitted infections	76 (66.1)
Family history of cervical cancer	62 (53.9)
Multiple sex partners	84 (73.0)
HPV infection	5 (4.3)
Preventive measures of cervical cancer*	
Maintain good perineal hygiene	95 (82.6)
Avoid smoking	73 (63.5)
Delay marriage or sexual intercourse	77 (67.0)
Avoid multiple sex partners	90 (78.3)
Avoid long-term use of OCPs	63 (54.8)
Use of condom	45 (39.1)
Regular Pap smear test	85 (73.9)
Vaccination against HPV	27 (23.5)
Treatment of GTIs and STIs	75 (65.2)
To rule out problems associated with reproductive system	59 (51.3)
Early diagnosis and treatment can cure cervical cancer	
Yes	110 (95.7)
No	5 (4.3)

*Multiple responses

Regarding the level of awareness of cervical cancer, out of total respondents, 47.8% of the respondents had adequate level and 52.2% of the respondents had inadequate level of awareness (Table 3).

Table 3: Respondents' level of awareness regarding cervical cancer n =115

Level of awareness	Frequency (%)
Inadequate	60 (52.2)
Adequate	55 (47.8)

Median value of score = 12.0

Majority of the respondents (79.1%) had never performed Pap smear test and only 20.9% of respondents had performed this test. Among those who performed test, two third of them (66.6%) counseled by health personal, and three- fourth (75%) had done this test only one time within the past 5 years. More than half (66.7%) of the respondents performed the Pap smear test at government hospital. Among the respondents who did not perform this test, almost all (92.3%) told that they had no symptoms so it was not required (Table 4).

Table 4: Practice regarding Pap smear test

Characteristics	Frequency (%)
Performed Pap smear test (n=115)	
Yes	24 (20.9)
No	91 (79.1)
Sources of information for Pap smear test (n=24)	
Counseled by health personal while visiting- health institutions	16 (66.6)
Information from mass media	1 (4.2)
Suggested by husband	1 (4.2)
Others	6 (25.0)
Frequency of performing Pap smear test in the past 5 years (n=24)	
One time	18 (75.0)
Two times	4 (16.7)
Three times	2 (8.3)
Place of performing Pap smear test (n=24)	
Government hospital	16 (66.7)
Private hospital	6 (25.0)
Doctors clinic	2 (8.3)
Reasons of not performed Pap smear test * (n=91)	
No symptoms of disease	84 (92.3)
Lack of awareness	8 (8.8)
Embarrassment	10 (10.9)
Carelessness	4 (4.4)
Fear of vaginal examination	1 (1.0)

*Multiple responses

There was no significant association of level of awareness of cervical cancer with practice of Pap smear test ($p = 0.247$). Level of awareness of cervical cancer was also insignificant with selected socio demographic characteristic i.e. age ($p=0.648$), educational status ($p=0.665$), and occupation ($p=0.887$), age at marriage ($p=0.054$) and age at first child birth ($p=0.263$) of the respondents (Table 5).

DISCUSSION

In the present study, one-fifth (20.9%) of participants correctly responded the meaning of cervical cancer which is contrary to the study findings of Devkota et.al where nobody had knowledge about the meaning of cervical cancer.¹⁰ Regarding the awareness on risk factors of cervical cancer, in the present study 77.4% mentioned the poor perineal hygiene and 75.7% mentioned the marriage or sexual intercourse at very young age. But in the study by Devkota et.al, poor perineal hygiene (38.2%), and in the study from India, having multiple sexual partner (12.4%) were the risk factors for cervical cancer.^{10,11} The findings was lower than the present study.

In this study, good perineal hygiene (82.6%) and avoiding multiple sex partners (78.3%) could prevent the cervical cancer. This findings was supported by the study in Kathmandu i.e, avoid multiple sex partners responded by

Table 5: Association of respondents' level of awareness with practice of Pap smear test and socio-demographic characteristics

Characteristics	Level of awareness		Chi - Square value	p value
	Inadequate f (%)	Adequate f (%)		
Practice of Pap smear test				
Yes	10(16.7)	14 (25.5)	1.342	0.247
No	50(83.3)	41 (74.5)		
Age (in years)				
30-40	39(54.2)	33 (45.8)	0.866	0.648
41-50	11(44)	14 (56.0)		
51-60	10(55.6)	8 (44.4)		
Educational Status				
Illiterate	14(56)	11 (44)	0.187	0.665
Literate	46(51.1)	44 (48.9)		
Occupation				
House manager	37(50.7)	36 (49.3)	0.241	0.887
Agriculture	10(52.6)	9 (47.4)		
Others	13(56.5)	10 (43.5)		
Age at marriage				
≤20	46(58.2)	33 (41.8)	3.707	0.054
≥21	14(38.9)	22 (61.1)		
Age at first child birth				
≤20	28(58.3)	20 (41.7)	1.253	0.263
≥21	32(47.8)	35 (52.2)		

53.6% respondents.⁹ However this finding is also contrary to the findings from Nepal and India where good perineal hygiene (10.4%), avoiding multiple sexual partners (11.2%) and good genital hygiene (9.5%) were the preventive measures of cervical cancer.^{10,11} Contrary finding may be due to differences in setting and sample size of the study. In this study vaccine against HPV (23.5%) was preventive measure of the cervical cancer. The study in Saudi Arabia reported higher finding than this study i.e. 88.1% considered that cervical cancer could be prevented by vaccination.¹² Many studies reported that HPV vaccine was the preventive measure by very few respondents.^{11,13-15}

In this study, 19.1% respondents answered the correct response of the purposes of Pap smear test i.e. to rule out cervical cancer. Nearly consistent finding reported by Alqahtani.¹⁶ The study in Nepal reported consistent findings i.e. 73.3% of women did not know the purpose of pap smear.¹⁷ The studies in Kajaksthan and Oman reported that more than half of the respondents knew about the Pap smear test i.e. 53.1%, 50.9%.^{18,19} In present study, early diagnosis and treatment could cure cervical cancer (95.7%). The study in Nepal and India reported that more than three-fourths of women responded cervical cancer can be cured if treated in early stage.^{9,11} Nearly half of the respondents received information about cervical cancer from mass media (48.7%) in this study and similar finding reported from the study in Ethopia i.e. 41.1% had heard about cervical cancer from mass media.²⁰

In this study, 79.1% respondents had never done Pap smear test and only 20.9% of respondents had done Pap smear test. Among them, 75% had undergone the test only one time within the past 5 years. Consistent findings was reported in

the study in Nepal, i.e. most of the respondents had not done any screening test (82.7%, 92.2% and 81.7%).^{10,17,21} The study in Nepal also reported that few women (16.6%) underwent Pap smear test in their lives.⁹ Similar findings were reported from the studies in India, Saudi Arabia and Nigeria.^{11, 12, 14} Among respondents who underwent the Pap smear test, 66.6% was counseled by health personal in this study. The study in Saudi Arabia and Nepal reported that most of them advised for Pap smear test by doctors and health worker i.e. 23.2%, and 69.6%.^{16, 21}

Among those respondents who did not perform the Pap smear test, 92.3% responded that they had no symptoms of disease in this study. Contrary findings reported in other studies i.e. it was unnecessary (18.9%), women considered them to be healthy therefore did not seek screening (32.7%), screening was not needful without any symptoms (50%). and.^{12,18,22} This may be due to difference in sample size and setting of the study. In this study, 47.8% respondents had adequate and 52.2% had inadequate level of awareness. Consistent findings was reported in a study conducted in Udayapur where 63.3% clients were aware of cervical cancer.¹⁷ Other studies in Nepal identified contrasting results.^{10, 22}

In the present study, no significant association of levels of awareness of cervical cancer with practice of Pap smear test was identified (p=0.247). Similarly no significant association was found on level of awareness of cervical cancer with age, educational status, and occupation, age at marriage and age at first child birth of the respondents. Contrary to this findings, high educational status of the women was found to have a positive impact in the knowledge of cervical cancer and

practice of Pap smear test.⁹Another study in Oman reported that cervical cancer knowledge scores were significantly associated with education level ($p < 0.001$) and employment status ($p < 0.001$).⁴⁹

CONCLUSION

Although the respondents had adequate level of awareness in cervical cancer and its screening test, but the practice of performing Pap smear test was low. The level of awareness of cervical cancer did not influence the practice of Pap smear

test. Socio-demographic characteristics also did not influence the level of awareness of cervical cancer. Therefore focused program in raising awareness on Pap smear test should be combined with availability of community based Pap smear test facilities is necessary to early detection and management of cervical cancer.

CONFLICT OF INTEREST: None

FINANCIAL DISCLOSURE: None

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