Original Article

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Knowledge, Attitude and Practice regarding Cervical Cancer Screening among Married Women Attending in a Tertiary Hospital

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ABSTRACT

Introduction: *Globally, cervical cancer is a serious burden on reproductive health of women which is preventable through early detection. The objective of this study was to find out the knowledge, attitude, and practice regarding cervical cancer screening among the married women.*

Methods: *Descriptive cross-sectional research was conducted in Tribhuvan University Teaching Hospital (TUTH). Non- probability purposive sampling technique was adopted. Data was collected using a structured interview questionnaire among 195 respondents from Gynae OPD. Data analysis was done by descriptive and inferential statistics.*

Results: *More than two third of the respondents (67.7%) had adequate knowledge regarding cervical cancer screening, 60% had inadequate practice and all the respondents had positive attitudes of screening. Most of the respondents (86.2%) said that having multiple sexual partner followed by sexually transmitted infection (84.1%) & multiparty (75.4%) were the causes and 84.6% stated that increased vaginal discharge, post-menopausal bleeding (79.5%) and irregular menstruation (67.2%) were the symptoms of cervical cancer. Almost all respondents (97.4%) said that early screening as preventive measures. The level of knowledge tends to be associated with age of the respondents and their socio-economic status (p=<0.05) whereas in practice, there was no association between selected variables.*

Conclusion*: Although respondents had adequate knowledge and positive attitude on cervical cancer and its screening, less than half of the respondents only practice Pap smear test as screening. The level of knowledge tends to be significantly associated with age of the respondents and their socio-economic status.*

Keywords: *Attitude, Cervical Cancer, Knowledge, Practice, Screening*

INTRODUCTION

Cancer of the cervix is a serious burden on the reproductive health of women world-wide.[1]It is the fourth most common cancer globally among women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers. Approximately 90% of deaths in low- and middle-income countries are due to cervical cancer. In Nepal, cervical cancer ranks as the 1st most frequent cancer among women[2] and is emerging as the leading cause of death caused by poor health seeking behavior, poor access to screening and treatment services.[3] Cervical cancer has very poor prognosis as 80% of them are diagnosed at an advanced clinical stage. Nepal has one of the highest incidences and mortality rates in Southeast Asian region.[4]

National Guideline for Cervical Cancer Screening and Prevention program in Nepal had the objective to screen at least 50% of women aged 30 to 60 years to reduce 10% cervical cancer burden within 5years [5]. Majority (about 95%) of women still never have done cervical cancer screening. Among them, proportion of unscreened women is much higher among the illiterate women and living in the rural region [6]. Cervical cancer is one of the preventable cancers that can be prevented by early detection and treatment [7]. Cervical cancer screening services coverage rate is very low (2.4%) in Nepal. The low coverage may be associated to a variety of factors, including socio-economic and cultural barriers. Studies have documented poverty, lack of knowledge, myths, lack of time, asymptomatic condition, support from husbands & families, and lack of routine screening as major obstacles to screening in Nepal. Moreover, lack of privacy during screening, embarrassment among women, and low importance given to women's health issues have also been cited as factors contributing to the reluctance of women to access cervical cancer screening services in low-income countries [8].

Prevention and control of cervical cancer depends on awareness about disease, screening procedures, and preventive measures [9]. Although numerous studies have been conducted 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, the effectiveness of cervical cancer screening depend to a great extent on the level of awareness[10]. Moreover, despite availability of HPV vaccines, cervical cancer continues to be a major public health problem. Hence, knowledge, attitude and practice towards cervical cancer screening should be studied and comprehended profoundly [11].

METHODS

Descriptive cross-sectional research design was adopted to assess the level of knowledge and to measure the association of level of knowledge with selected variables among married women. Non- probability purposive sampling technique was adopted to collect data among 195 respondents attending at Gynae OPD of TUTH after obtaining Ethical approval (Ref. 97 (6-11)[E2] 076/077) from Institutional Review Committee of Institute of Medicine, Tribhuvan University. After taking administrative written permission from TUTH, written consent was obtained from each respondent prior to data collection. Voluntary participation and withdrawal from the study at any time without giving reason was considered. Anonymity was maintained during data collection by giving code numbers, Confidentiality was maintained by keeping the information for study purpose only and privacy was maintained by collecting data in a separate area for each woman.

Data was collected using a structured interview questionnaire from 1st September to 27th September 2019. A structured interview schedule was prepared by the researcher herself based on research objective, reviewing the related literature, consultation, and validation of instrument with research expert. The instrument consisted of four parts; Part I: Questions related to Socio-demographic variables, Part II: Questions related to knowledge about cervical cancer screening, Part III: Questions related to practice on cervical cancer screening, Part IV: Questions related to attitude towards cervical cancer screening. For each correct response was given 1 score and 0 for incorrect response and additional score was given for each correct multiple response. Pre-testing was done in 10% of the respondents attending Gynae OPD of Manamohan Memorial Medical College and Teaching Hospital. Necessary modification was done based on the feedback of pretest. Data was edited, coded, and entered into IBM SPSS version 16 program. Data was analyzed by using descriptive statistics (as frequency, percentage, mean and standard deviation) and inferential statistical test (chi-square test) was used to measure the association between variables.

RESULTS

Table 1: Socio-demographic Characteristics of the Respondents (n=195)

Characteristics	Number	Percentage
Age in completed years		
20-29	47	24.1
30-39	62	31.8
40-49	64	32.8
50-59	22	11.3
Mean Age ±SD; 37.44±9.57		
Education status		
Read and write	169	86.7
Cannot read and write	26	13.3
Education level(n=169)		
Basic/Elementary	47	27.8
Secondary	36	21.3
University level	86	50.9
Religion		
Hinduism	156	80.1
Buddhism	27	13.8
Christianity	10	5.1
Islam	2	1.0
Ethnicity		
Bhrahmin/Chettri	107	54.9
Janajati	72	36.9
Dalit	13	6.7
Muslim	2	1
Madhesi	1	0.5

Table 1 shows that nearly one third of respondents (32.8%) were between the age of 40 to 49 years. The mean age was 37.44±9.57 years. Among them most of the respondents (86.7%) were able to read and write. Half of the respondents (50.9) had University level education. Majority of the respondents (80.0%) were Hindus and 54.9 were Brahmin/Chettri followed by Janajati (36.9%).

Table 2: Respondents' Knowledge on Preventive Measures of Cervical Cancer (n=195)

Variables	Number	Percentage
Preventive Measures*		
Early screening	190	97.4
Treating STI	164	84.1
Practice safe sex	136	69.7
HPV vaccination	29	14.8
Knowledge of screening test	154	79.0
Screening tests* (n=154)		
Pap smear	154	100.0
VIA	18	11.6
HPV test	2	1.2

**Multiple Responses*

Table 2 shows that cent percent respondents said that having knowledge regarding cervical cancer can prevent cervical cancer. Almost all respondent (97.4%) said that early screening as a preventive measure followed by treating STI (84.1%) and only 14.8% answered that HPV vaccination can prevent cervical cancer. The majority of the respondents (79%) had knowledge of screening test.

Table 3: Respondents' Practice on Cervical Cancer Screening (n=195)

Variables	Number	Percentage
Screened for cervical cancer	89	45.6
Frequency of screening (n=89)		
Yearly	67	75.3
Two yearly	6	6.7
Three yearly	13	14.7
Four yearly	3	3.3
Age of Screening (n=89)		
20-29	17	19.1
30-39	36	40.4
40-49	32	36.0
50-59	4	4.5
Time of last screening (n=89)		
Within 3 years	86	96.6
Before 3yrs	3	3.4
Reason for screening (n=89)		
Health personnel advice	70	78.6
Self-initiative	19	21.4
Attend to seek care (n=195)		
Go to health center	123	63.1
Consult doctor	72	36.9
Reason for not screening (n=106)		
Feeling of being not at risk	58	54.8
Lack of awareness	35	33.0
Not recommended	13	12.2

Table 3 shows that less than half of the respondents (45.6%) had cervical cancer screening. Among them 75.3% respondents used to screen yearly for cervical cancer and 14.7% respondents screen every 3 yearly, and 40.4% were screened between 30-39 years. Similarly, almost all respondents (96.6%) had screened within three years as per health personnel advice (78.6%) . Among the respondents who were not screened for cervical cancer were due to feeling of being not at risk (54.8%) followed by lack of awareness (33%).

Table 4: Respondents' Level of Knowledge and Practice on Cervical Cancer Screening (n=195)

Levels	Number	Percentage
Knowledge		
Adequate Level ≥ 50%	132	67.7
Inadequate Level < 50%	63	32.3
Practice		
Adequate Level ≥ 50%	78	40
Inadequate Level < 50%	117	60

Table 4 reveals that two third of the respondents (67.7%) had adequate level of knowledge and more than half of the respondent (60%) had inadequate practice of screening.

Table 5 reflects almost all respondents (92.8%) strongly agreed that cervical cancer screening is very important whereas most of all respondents (90.3%) strongly disagreed in the statement cervical cancer screening is recommended only for sexually active women. Thirty six percent respondents agreed that women having sexually transmitted disease are more prone to have cervical cancer. Majority of the respondents (76.9%) strongly disagreed that cervical cancer screening is not recommended for HPV vaccinated women. Most of the respondents (89.7%) strongly agreed that cervical cancer can be managed after its diagnosis in the early stage.

Table 5: Respondents' Attitude towards Cervical Cancer Screening (n=195)

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	No. (%)	**No. (%)**	**No. (%)**	**No. (%)**	**No. (%)**
Cervical cancer is life threatening disease	11 (5.6)	37 (19)	31 (15.9)	55(28.2)	61 (31.3)
Women having sexually transmitted disease are more prone to have cervical cancer*	9 (4.6)	27(13.8)	24 (12.3)	72 (36.9)	63(32.4)
Cervical cancer screening is very important	0 (0.0)	0 (0.0)	2 (1)	12 (6.2)	181 (92.8)
Cervical cancer can be managed after its diagnosis in the early stage.	0 (0.0)	3 (1.5)	5 (2.6)	12 (6.2)	175 (89.7)
Cervical cancer screening is suggested for all gynecological cancer*	1 (0.5)	14 (7.2)	63 (32.3)	21 (10.8)	96 (49.2)
All women above 20 years should have done cervical screening	3 (1.5)	3 (1.5)	17 (8.7)	58 (29.8)	114 (58.5)
Cervical cancer screening is not recommended for HPV vaccinated women. *	150 (76.9)	16 (8.3)	25 (12.8)	2 (1)	2 (1)
Cervical cancer screening is recommended only for sexually active women*	176 (90.3)	11 (5.6)	4 (2.1)	3 (1.5)	1 (0.5)
Cervical cancer screening is not needed for women above 65 years. *	175 (89.8)	9 (4.6)	7 (3.6)	2 (1)	2 (1)
Cervical cancer screening is a painful procedure*	77 (39.5)	16 (8.2)	98 (50.3)	4 (2.0)	0 (0.0)
Cervical cancer is a time-consuming procedure*	84 (43.1)	13 (6.7)	97 (49.7)	1 (0.5)	0 (0.0)
If proper information and chance is provided, I will be prepared to participate in cervical cancer screening	5 (2.5)	2 (1.0)	7 (3.6)	28 (14.4)	153 (78.5)

**Negative Responses*

Table 6: Association of Level of Knowledge regarding Cervical Cancer Screening with Selected Variables (n=195)

Variables	Level of Knowledge		χ^2Value	p-value
	Adequate No.(%)	Inadequate No.(%)		
Age group (in years)				
Below 40	67(60.4)	44(39.6)	6.334	0.012*
40 and above	65(77.4)	19(22.6)		
Educational Status				
Basic Level	33(70.2)	14(29.8)	0.699	0.705
Secondary Level	25(69.4)	11(30.6)		
Higher Secondary Level	65(75.6)	21(24.4)		
Religion				
Hinduism	102(65.4)	54(34.6)	1.899	0.168
Others (*Buddhism, Christianity, Islam*)	30(76.9)	9(23.1)		
Ethnicity				
Brahmin/Chettri	68(67.5)	39(32.5)	6.557	1.000**
Janajati	49(68.1)	23(31.9)		
Others (*Dalit, Muslim, Madhesi)*	12(66.7)	4(33.3)		
Duration of Marriage				
Less than 20 years	88(66.7)	44(33.3)	0.197	0.658
20 years and above	44(69.8)	19(30.2)		
Socio economic Status				
Enough up to 12 months	51(58.1)	37(41.9)	6.954	0.008*
More than 12 months	81(75.7)	26(24.3)		

*Note: *Significance level at ≤ 0.05 at 95% confidence interval **Fisher Exact Test*

Table 6 shows that there was statistically significant association between level of knowledge and age with p value 0.012 and socio-economic status with p value 0.008 but other variable shows insignificant association.

DISCUSSION

The findings of the study revealed that all the respondents had heard about cervical cancer. More than half of the respondents (67.7%) had adequate knowledge regarding cervical cancer screening and 60% had inadequate practice. This finding is not supported by the literature as cited in Singh et al[12] which showed 32.7% of the respondents had adequate knowledge and the practice was supported by the study conducted by Shrestha and Dhakal[13]in which 72.2% had inadequate practice.

The present study shows that 86.2% had knowledge on multiple sexual partners, STI (84.1%) and Multiparity (75.4%) and sex at early age (70.6%) as the causes of cervical cancer The findings were inconsistent with a study done by Chaudhari, Dutt, Goswami, Roychowdhary[14] where very few knew about other factors like multiple sexual partner 20% as risk factor. Regarding sign and symptom of cervical cancer, majority of the respondents (84.6%) stated that increased vaginal discharge, post-menopausal bleeding (79.5%) and irregular menstruation (67.2%) were the symptoms whereas only 33.3% respondents were aware of pain during sexual intercourse is the symptoms of cervical cancer. These findings are consistent with study done by Shrestha, Sapkota in Bharatpur, Chitwan[15] in which 71.3% agreed increased vaginal discharge,

and 60.7% stated post-menopausal bleeding as symptoms of cervical cancer. Almost all respondent (97.4%) said that early screening as a preventive measure followed by treating STI (84.1%), practicing safe sex (69.7%)and only 14.8% answered that HPV vaccination can prevent cervical cancer. About 80% respondent had knowledge on screening test. This finding is consistent with the study conducted by Shrestha[16] which showed that Pap smear (68.8%) as the screening test for cervical cancer.

The study revealed that less than half of the respondents (45.6%) had cervical cancer screening practice. Among them 40.4% respondents had screened in 30-39 years and almost all (96.6%) had screening within 3 years and those who did not screened for cervical cancer were due to feeling of being not at risk (60.7%) followed by lack of awareness (27.8%). This finding is inconsistent with the study done by Shrestha[16] which revealed that 28.5% only had cervical cancer screening. The most common reason for participating in cervical cancer screening was health personnel advice and the most common reason for non-participation was feeling of not being at risk followed by lack of awareness. This finding is supported by the study conducted by Shrestha and Dhakal [13]that showed physicians' or other health care workers' advice as reason for participating. Besides this, the present study reveals all the respondents has positive attitude of screening which was similar to the findings of the study conducted by Bansal, et al [17,13]in which cent percent had favorable attitude. The study highlighted that there was a significant association between level of knowledge and respondents' age (p=0.012) and socio-economic status(p=0.008) but no significant association was found between level of practice and selected variables. The findings of this study are not consistent with a study conducted by Thapa[6] which showed that there was an insignificant association between level of knowledge and age (p=0.366).

CONCLUSION

Respondents have adequate knowledge and positive attitude on cervical cancer and its screening but less than half of the respondents only practice the cervical cancer screening. The level of knowledge tends to be associated with age of the respondents and their socio-economic status whereas in practice, there was no association between selected variables.

CONFLICT OF INTEREST: NONE

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REFERENCES

1. Kieti SN. Knowledge, Attitude and Practices on cervical cancer screening and prevention methods among nurses at two Nairobi hospitals in Kenya. University of South Africa. 2016. https://doi: 10.1097/IGC.0b013e31828e425c,. [Pdf]
2. Khatry RA, Joseph B. A study to evaluate the effectiveness of self-instructional module on knowledge regarding Pap smear screening among female teachers from selected schools of Bangalore. Int J Health Sci Res. 2017; 7(7):171-176.[Pdf]
3. Habtu Y, Yohannes S, & LaelagoT. Healt seeking behavior and its determinants for cervical cancer among women of childbearing age in Hossana Town, Hadiya zone, Southern Ethiopia: Community based cross sectional study. BMC Cancer, 2018; 18(1), 1–9. https://doi.org/10.1186/s12885-018-4203-2[Full text]
4. Pandey A, KarmacharyaE. Cervical cancer screening behavior and associated factors among women of Ugrachandi Nala, Kavre, Nepal. European Journal of Medical Research, 2017; 22(1). https://doi.org/10.1186/s40001-017-0274-9[Full text]
5. Ranjit A, Gupta S, Shrestha R, Kushner AL, Nwomeh BC. Awareness and prevalence of cervical cancer screening among women in Nepal Epub 2016, [Link]
6. Thapa M. Cervical cancer awareness and practice of pap smear test among women

with gynecological problems. *J.* Nepal Med. Assoc 2018; 56(211), 654–657. https://doi.org/10.31729/jnma.3633[Full text]

7. RijalS, Rijal, A, Deo, SK. Cervical cancer and its screening: A Cross-Sectional Study among Married Women in Sankhu, Kathmandu. *Birat J. Health Sci***.** 2019; ,3(3), 519–523. https://doi.org/10.3126/bjhs.v3i3.22167,[Pdf]

8. Joshi M, Mishra S. Cervical cancer screening in Nepal: ethical considerations. Health Prospect, 2013;12(1), 18–20. DOI: https://doi.org/10.3126/hprospect.v12i1.8723

9. BobdeyS, SathwaraJ, JainA, BalasubramaniamG. (2016). Burden of cervical cancer and role of screening in India. Indian Journal of Medical and Paediatric Oncology, 2016; 37(4), 278–285. https://doi.org/10.4103/0971-5851.195751[Full text]

10. Curry SJ, KristAH, Owens,DK., Barry MJ, Caughey,AB, Davidson, KW et al. Screening for cervical cancer us preventive services task force recommendation statement. *J. Am. Med. Assoc.* 2018;320(7), 674–686. [PMID: **30140884**]DOI: 10.1001/jama.2018.10897

11. Thapa N, ShresthaG, Maharjan M, LindellD, Maskey N, Shah R, LindellD. Burden of cervical neoplasia in mid-western rural Nepal : A population-based study. 2018;29(5), https://doi:10.3802/jgo.2018.29.e64[Full text]

12. Singh, M., Ranjan R, Das B, GuptaK. Knowledge, attitude and practice of cervical cancer screening in women visiting a tertiary care hospital of Delhi, https://doi: 10.4103/0019-509X.146780, [Full text]

13. Shrestha S, Dhakal, P. Knowledge, Attitude and Practice Regarding Cervical Cancer Screening Among Women Attending a Teaching Hospital, Bharatpur, Chitwan. *J Family Reprod Health* 2017 11(1), 18–23. [Full text]

14. Chaudhari S, Dutt R, GoswamiS, Roychowdhury J. Awareness about cervical cancer screening among reproductive aged women attending gynaecology outpatient department in ESI PGIMSR & ESIC medical college & Hospital, Joka, Kolkata.***I****nt J Community Med Public Health*. 2017; 4(4), 1319. https://doi.org/10.18203/2394-6040.ijcmph20171369. [Pdf]

15. Shrestha BK, Sapkota, DK SapkotaM. Knowledge and Acceptability of Cervical Cancer Screening among Adult Women Visiting in Gynecological OPD. *JCMS-Nepal*. 2019;15(1), 67–70. DOI: https://doi.org/10.3126/jcmsn.v15i1.21128

16. Shrestha P. Knowledge, attitude, and practice regarding Pap smear test among women in ward no. 14, Dharan. 2014. https://hdl.handle.net/10037/7995[Pdf]

17. BansalAB, PakhareAP, Kapoor N, Mehrotra R, KokaneAM. Knowledge, attitude, and practices related to cervical cancer among adult women: A hospital-based cross-sectional study. J Nat Sci Biol Med 2015; 6(2), 324–328. https://doi.org/10.4103/0976-9668.159993[Full text]