Awareness and Practice of Cervical Cancer and it's Screening Among Married Women of Syangja, Nepal

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ABSTRACT

Cervical cancer is the second most common cancer in women worldwide. Close to half a million new cases are diagnosed each year and over 2.5 lakhs of women die due to cervical cancer annually. Current estimates indicate that every year 2332 women are diagnosed with cervical cancer and 1367 die from the disease. It is one of the leading causes of morbidity and mortality amongst the gynecological cancers worldwide. A cross-sectional descriptive design was used to assess the awareness and practice of cervical cancer screening among the married women of Syangja district. Proportionate stratified sampling was used to select the total 207 representative sample. Data was collected by using semi structured interview schedules and collected data were entered in Ms-Exel and analyzed using SPSS. The study result showed that majority 96% of the respondents had poor awareness and whereas none of the respondents had good awareness regarding the cervical cancer and its screening tests. The highest awareness was in the area of cervical cancer screening with mean percentage 61.11% whereas the least awareness was in the area of general aspects of cervical cancer with mean percentage 41.55%. Regarding practice of cervical cancer screening test 25.6% had performed it within 5 years, among them 50.93% of the respondents had undergone pap smear test. There was no association exists between the selected demographic variables and the level of awareness. Similarly there was no correlation exists between the level of awareness on cervical cancer and practice of cervical cancer screening. Majority of the women had poor awareness regarding the cervical cancer screening tests and significantly low practice of cervical cancer screening test.

Key words: Awareness, Practice, Cervical cancer, cervical cancer screening

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INTRODUCTION

Cervical cancer is a malignant neoplasm of the lower pole of the uterus.[1] Cervical cancer is the second most common cancer in women worldwide.[2] Close to half a million new cases are diagnosed each year and over 2.5 lakhs of women die due to cervical cancer annually. Among which 80% of the cases of cervical cancer occurs in developing countries mainly in Latin America, sub-Saharan Africa and the Indian subcontinent.[3, 4]

Nepal has a population of 10.16 million women ages 15 years and older who are at risk of developing cervical cancer. Current estimates indicate that every year 2332 women are diagnosed with cervical cancer and 1367 die from the disease. Cervical cancer ranks as the 1st most frequent cancer among women in Nepal between 15 and 44 years of age.[5] According to the National Cancer Registry Program (NCRP), cervical cancer is among the top 10 cancers in Nepal. The NCRP 2005 states that cervical cancer accounts for 21.4 % of all cancer in women appearing and most frequently in women aged 35-64 years. It is the second most common cancer after lung cancer according the total cancer incidence,where lung

cancer is (16.54 %) and cervical cancer is (15.11%).[2,6] Cervical cancer has a long Per-malignant period that provides an opportunity for screening and treating before it turns to invasive cervical cancer.[7] Pre-cancerous lesions can be detected 10 years or more before cancer develops.[8] National Guideline for cervical cancer screening and prevention has prioritized prevention of cervical cancer through screening and has emphasized using the VIA approach for cervical cancer screening as this is the most effective and feasible method of cervical cancer screening in low resource country like Nepal in comparison to cytology (pap smear test).[2]

Screening methods are underutilized in the developing countries than in developed countries. It has been estimated that only 5% of women of developing countries are screened by Pap smear compared to 40-50% in developed countries. Inadequate screening in developing countries may be due to the number of factors like poor educational background, poor knowledge regarding availability and benefits of screening. This is further influenced by the affordability of screening

tools by the individual and socio-cultural barriers.[9]

A study conducted in Nepal shows that 87 % of respondents were unaware of screening tests and only 4.7% had undergone the screening tests.[10] Cervical cancer can be prevented and its mortality rate can be reduced by diagnosing the disease in its early stage, but the Nepalese women have not achieved success either in prevention of the cancer or in its mortality reduction.[11]

A study on knowledge and screening for cervical cancer among women in Mangalore city shows that out of total 83 women, 81.9% were not aware of facilities for screening. Lack of knowledge is reflected in poor understanding of symptom. Educated women had higher knowledge 16.9 % than house wives 1.2%. Only 7.2% of the women had ever undergone Pap smear testing. This study concludes that most of the women had poor knowledge and had not undergone screening for cervical cancer.[12]

A hospital based retrospective study was conducted in Manipal Teaching Hospital, Pokhara from 2003-2005. There were total 957 cancer cases of which 496 (51.8%) were males and 461 (48.2%) females. Among females, 28.4% cancers were in the reproductive system and 22.8% were respiratory system cancers followed by digestive organ cancers (14.1%). This shows that cancer of reproductive organs is higher among the women of western Nepal with cervical cancer 19.7% and breast cancer 7.8% among the total female.[13]

The finding in the hospital based cancer registry in B.P.Koirala Memorial Cancer Hospital (BPKMCH) showed that cervical cancer is the most frequently detected malignancy in Nepal.[14,15] A cross sectional analytical observational study on Pap Smear Coverage and Effect of Knowledge and Attitude Regarding Cervical Cancer on Utilization of the Test revealed that 63.3% of clients were aware of cervical cancer, 73.3% of women did not know why pap smear is done. Women who had good attitude towards cervical pap smear test were (44.4%) and women who had bad attitude towards the test were (55.6%), the adequate knowledge on cervical cancer screening was present on 26.3% and inadequate knowledge on 73.3% and Pap smear coverage was found to be only 7.8% which is lower.[16]

Incidence of cervical cancer is in top among the women in Nepal. The reviewed literature shows that the level of awareness and practice of cervical cancer is very low in Nepal, Which may be as a result of poor attitude and knowledge of people regarding cervical cancer screening.[17] VIA is one of the most effective tool for early cancer cell detection but in Nepal proper records of VIA and papsmear test is not available. Fewer researches are conducted in knowledge and awareness of people towards VIA, Pap smear and their utilization.

METHODS

Cross sectional descriptive study design used to assess the awareness and practice on cervical cancer screening among married women of Arjunchhaupari Rural Municipality of Syangja district. The study population consisted of married women of age group 20 – 60 years and who were not diagnosed with cervical cancer. Respondents were selected using proportionate stratified random sampling technique. The total samples size was 207 from 6 wards of rural municipality. From each ward, required number of the women was chosen for data collection by identification of the street of ward rotating pencil pointed direction and first household was chosen randomly from that direction until meet the required sample.

Data was collected after getting approval from concerned authority. Anonymity and confidentiality of the respondents were maintained throughout the study. The data was primary by nature collected after obtaining informed consent. Reliability of the instrument was 0.72 and 0.8 for awareness and practice questionnaire respectively. The collected data were coded and entered in Microsoft Excel and was exported to SPSS for analysis.

RESULTS

Table 1: Socio-demographic characteristic of the respondents   **n=207**

Variables	Frequency	Percentage	Variables	Frequency	Percentage
Age (in years)			**Family Income (Rs/Month)**		
20-30 years	82	39.62	≤10,000	15	07.25
31-40 years	64	30.92	10,000 - 30,000	106	51.20
41-50 years	40	19.32	30,000-50,000	72	34.78
51-60 years	21	10.14	≥50,000	14	06.77
Religion			**Occupation**		
Hindu	192	92.78	House manager	136	65.70
Others*(buddhist, Christian, Muslim)	15	2.22	Service	05	02.41
Ethnicity			**Agriculture**	**24**	**11.59**
Upper caste	131	63.30	Self-employed	42	20.39
Others*dalit, janjati, religious minorities	76	36. 70	**Duration of Marriage (in years)**		
Educational Status of respondents			0-5	35	16.90
Illiterate	78	37.68	6-10	32	15.50
Primary	16	07.71	11-15	40	19.30
Secondary	78	37.68	16-20	24	11.59
Higher Secondary	22	10.60	> 20	76	36.71
Bachelor and above	13	06.30	**Age at first childbirth in years (n-190)**		
Age at marriage in years			15-20	93	49.00
≤15	25	12.07	21-25	93	49.00
16 – 20	137	66.19	26-30	04	02.00
21 – 25	44	21.26			
26 -30	01	00.48			

The study findings revealed that 39.62% of respondents were between 20 – 30 years. The minimum age was 20 years and maximum age was 60 years. The mean age was 36.07± 10.87 years. The majority 92.78% of the respondents belonged to Hindu religion and 63.3% of the respondents were from upper caste group. Most of the respondents 37.68% were illiterate, 37.68% had secondary level of education.

Majority of respondents 66.19% were married at 16-20 years of age. Among 207 respondents, 51.20% the respondents had family income ranged between Rs/month. 10,000 - 30,000. In terms of occupation 65.7% of the respondents were house manager, 36.71% of the respondents were married for more than 20 years. The mean age of marriage, duration of marriage was 18.72 ± 2.5, 17.37±11.39 years respectively.

Table 2: Awareness on different areas of cervical cancer and its screening methods   **n=207**

Variables	Max score	Mean ± SD	Mean Percentage
General aspects of cervical cancer	20	8.31±1.94	41.55
Cervical cancer screening	10	5.50± 1.21	61.11
Pap Smear Test	07	3.76 ± 1.35	53.82
VIA	15	6.44 ± 1.98	53.66
Total	52	23.62± 4.63	45.42

The highest level of awareness was in the area of cervical cancer screening with 61.11 mean percentages followed by Pap smear test with mean percentage 53.82. The lower awareness was general aspects of cervical cancer with mean percentage was 41.55.

Table 3: Level of awareness regarding cervical cancer and its screening methods n=207

Level of awareness	Frequency	Percentage
Satisfactory awareness	09	04.35
Poor awareness	198	95.65

The 95.65% of the respondents had poor awareness and only 4.45% of the respondents had satisfactory awareness on cervical cancer and its screening test whereas none of the respondents had good awareness.

Table 4: Practice of cervical cancer screening n=207

Variables	Frequency	Percentage
Performed	53	25.60
Not performed	154	74.40

The practice of cervical cancer screening shows that only one quarter 25.6% of the respondents had undergone the cervical cancer screening test within 5 years.

Table 5: Respondents awareness on general aspects of cervical cancer n=207

Variables	Frequency	Percentage
Meaning of cervical cancer		
Correct answer	59	28.50
Incorrect answer	148	71.50
Major risk factors of cervical cancer *		
Sexually active before 18 years	92	44.44
Multiple sex partner	150	72.46
Previous STI	58	28.01
Vulval warts	50	24.15
Minor risk factors of cervical cancer *		
Smoking	119	57.48
Long term use of hormonal contraceptives	104	50.24
Family history of cervical cancer	83	40.09
low immune system	15	07.24
Intrauterine device	63	30.43
Common symptoms of cervical cancer *	41	19.80
Post coital bleeding	81	39.13
Post menopausal bleeding	52	25.12
Painful coitus	120	57.97
Abnormal vaginal secretions	143	69.08
lower abdominal pain		
Preventive measures for cervical cancer *		
Regular screening	121	58.45
Balanced diet	113	54.58
Avoid smoking	59	28.50
Get vaccinated against HPV	71	34.29

Multiple responses *

As shown in table 5, very few 28.50% of the respondents had correct ideas regarding meaning of cervical cancer, 72.46% of the respondents were aware that major risk factors of cervical cancer was having a multiple sex partner followed by sexually active before 18 years of age 44.44%. Slightly more than half 57.48% of the respondents reported that minor risk factor of cervical cancer was smoking followed by long term use of hormonal contraceptives 50.24%.

Regarding symptoms of cervical cancer 69.08% of the respondents were aware that lower abdominal pain is the most common symptom followed by abnormal vaginal secretions 57.8%. More than half 58.45% of the respondents were aware that preventive measure for cervical cancer is regular screening followed by balanced diet 54.58% and few 34.31% respondents knew about vaccination against HPV is a preventive measures for cervical cancer screening.

Table 6: Women's awareness on cervical cancer screening test n=207

Variables	Frequency	Percentage
Meaning of Cervical Cancer Screening		
Correct answer	118	57.00
Incorrect answer	89	43.00
Purpose of cervical cancer screening test*		
To detect precancerous state of cervical cancer	145	70.04
To treat cervical cancer	93	44.92
To detect early cellular changes of the cervix	79	38.16
Diagnostic test to detect cervical cancer *		
VIA test	61	29.46
Pap smear	166	80.19
Colposcopy	11	05.31
Biopsy	142	68.59

Multiple responses *

Among the 207 respondents, more than half 57.0% of the respondents had correct knowledge on meaning of cervical cancer screening test. About one third 70.04% of the respondents were aware that purpose of cervical cancer screening is to detect the precancerous state of cervical cancer and more than one third 80.19% of the respondents said pap smear test as the diagnostic test to detect cervical cancer and only 29.46% the respondents were aware that VIA test is a diagnostic test for cervical cancer.

Table 7: Respondents awareness regarding Pap Smear Test n=207

Variables	Frequency	Percentage
Meaning of pap smear test		
Correct answer	110	53.14
Incorrect answer	97	46.86
Best time to perform pap smear test		
Correct answer	72	34.8
Incorrect answer	135	65.2
Initial starting of pap smear test		
Correct answer	98	47.35
Incorrect answer	109	52.65
Time interval to repeat pap smear test		
Correct answer	32	15.46
Incorrect answer	175	84.54

More than half 53.14% of the respondents were aware about the correct meaning of pap smear test. One third 34.8% of

the respondents had knowledge that best time to perform the pap smear test is 7 days after the mensuration. Nearly half 47.35% of the respondents had knowledge on initial starting of pap smear test at 21 years of age. Very few 15.4%of the respondents had knowledge on time interval to repeat the pap smear test.

Table 8: Respondents awareness on VIA test n=207

Variable	Frequency	Percentage
Meaning of VIA test		
Test to identify early stage of cervical cancer	122	58.93
Test to visualize the cells of cervix	113	54.58
Test to treat early stage of cervical cancer	69	33.33
Best time to perform VIA test *		
During postpartum	129	62.31
Anytime during menstrual cycle	64	30.91
During pregnancy	09	04.34
After 20 years of age	63	30.43
After being sexually active	85	41.06
Time interval to repeat VIA test		
Correct answer	100	48.30
Incorrect answer	107	51.70

Multiple responses *

The data in table 8 showed that 58.93% of the respondents were aware meaning of VIA test is to identify the early stage of cervical cancer. Majority of respondents 62.31% said that best time to perform the VIA test is during the postpartum period and only 48.3% of the respondents were aware the correct time interval to repeat the VIA test is every 5 year.

Table 9: Correlation between awareness and practice of cervical cancer screening n=207

Variables	Mean	SD	r Value	p value
Awareness	23.62	4.63		
Practice	0.25	0.43	0.20 NS	0.08

NS: Non Significant, r ≥0.7 (significant relationship)

There was no correlation or a weak relation between awareness and practice of cervical cancer screening.

Table 10: Association of level of awareness with selected demographic variables   n=207

Variable	Total score (Median)		χ^2	p-value
	≤23	**>23**		
Age				
≤ 35	57	55	0.41	0.83
> 35	47	48		
Religion				
Hindu	98	94	0.679	0.41
others	06	09		
Ethnicity				
Upper caste	69	66	0.117	0.73
others	35	37		
Type of Family				
Nuclear	48	49	0.42	0.83
Joint and Extended	56	54		
Education of respondents				
Literate	60	69		
Illiterate	44	34	1.905	0.16
Occupation				
House manager	67	69		
Others	37	34	0.151	0.69
Family income				
≤ Rs. 30000	54	67		
>Rs. 30000	50	36	3.671	0.05
Age at marriage in years				
≤ 19	65	62	0.116	0.73
>19	39	41		
Age at first child birth in years				
≤ 21	65	57	3.140	0.07
> 21	28	42		

There was no association of awareness on cervical cancer and its screening test with demographic variables i.e. age, ethnicity, religion, family, income, educational status and age at marriage and childbirth.

DISCUSSION

In this study most of the respondents 39.62% were 20-30 years old and 10.14% of the respondents were 51-60 years old which was inconsistent with the study conducted in Nepal Chitwan Medical college which shows 364(50%) the respondents were of age category 18-35 years.[11] The mean age of respondents in this study was 36.07±10.87 years that was consistent with study in Nepal (35.3± 10.2)[14] and inconsistent with the study conducted in India (34.5 ± 9.23).[18] In present study most 192(92.8%) of the respondents belonged to Hindu religion which was further supported by a research conducted in Udayapur (89%).[19] The inconsistent was probably due to differentiation of sample age group.

In current study most of the respondents 37.68% were illiterate which was supported by the study findings of Perlambur[14] and was further contradicted by the study findings conducted in India with only 3% of the illiterate respondents.[20] In present study 37.68% of the respondents had secondary level of education which was in contradict with the study findings in Kerala which shows 64.4% had completed secondary level education.[18] The inconsistent was due to larger sample size in other study.

In this study more than half 66.18% of the respondents were married at 16-20 years of age and 48.94% of the respondents gave child birth at 15-20 years which was nearly similar to the study findings conducted in India where age at marriage and childbirth was less than 20 years in 89.1% and 58.8%.[12]

In terms of occupation majority 65.7% of the respondents in present study were housewife which was supported by the study findings in Udayapur 70.15% [15] and contradictory with the study in Uganda where 20.3% of the respondents were housewives.[21]

In current study majority 95.65% of the respondents had poor awareness which was similar with the study conducted in Kerala India with 92.8%[14] of the respondents having poor awareness and was contradictory with study of Perambalur where Poor awareness was present in only 6.75%[14] of the respondents. Based on the symptoms of cervical cancer most of the respondents of this study reported lower abdominal pain 69.08% and abnormal vaginal secretions 57.97% as the most common symptoms which was supported by the research in[22] and was further contraindicated by the study conducted in Kerala.[19]

Regarding the preventive measures of cervical cancer 58.45% were aware of regular screening which was inconsistent with the study findings in India (85.1%) and Kerala (74.2%).[23,18']

Present study shows 57.0% of the respondents had correct knowledge on meaning of cervical cancer screening test which was nearly similar with the study findings in Kathmandu (42.9%)[10] and was inconsistent with the study findings in Bharatpur (67.6%).[15] Present study 80.19% of the respondents reported pap smear test as the diagnostic test to detect cervical cancer which was inconsistent with the study findings of Kerala (5.8%)[14] and was inconsistent with a study conducted in Saudi Arabia where 338(67.6%) of the respondents were aware of pap smear test.[24]

In this study 53.14% of the respondents were aware about the meaning of the pap smear test which was consistent with the study findings of Kuwait (48.3%)[22] and was inconsistent with the findings of Kerala (18%).[14] In current study 15.45% of the respondents were aware on time interval to repeat the pap smear test which was inconsistent with the study in Kerala where 2%[14] and Kuwaiti women where 73.7% of the respondents were aware.[25] In present study 58.93% of the respondents were highly aware about the meaning of VIA test which was opposed by the study of Saudi Arab which shows (9.8%) of the respondents were only aware of the VIA test.[24]

The result of this study shows 25.6% of the respondents had done the cervical cancer screening test within 5 years which was nearly similar with the study findings in Nepal Chitwan (16%)[13] and was contradictory to the study conducted in rural India (2.7%) and Goban (1.9%).[23,26]

In this study there was no association of awareness on cervical cancer screening with demographic variables which was further supported by the study conducted in Chitwan[12] and America[25] whereas the study conducted in Vhembe district shows inconsistent findings with this study showing a significant relationship between level of knowledge of cervical cancer and the age range of respondents (p < 0.005).[27]

In this study no correlation exists between awareness and practice of cervical cancer screening which was supported by the study conducted in Nigeria.[28]

CONCLUSION

The study findings revealed that 95.65% of women were poorly aware on cervical cancer and its screening test. Few of the respondents 25.6% had undergone the screening test. The highest awareness was in the area of cervical cancer screening i.e. 61.11 mean percentage while lowest in the areas of general aspects of cervical cancer with mean percentage of 41.55.

This study does not shows any association of cervical cancer awareness with other demographic variables and no any relation exist between the awareness and practice of cervical cancer screening test. It reveals that women are not aware about the screening tests available for cervical cancer and are not properly utilizing the screening facilities. The study suggests that there is a need to increase awareness on different aspects of cervical cancer and its screening and encourage to performed cervical cancer screening regularly.

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