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Hospital based Study on Awareness and Screening Practices of Cervical Cancer among Reproductive age Women attending Female Outpatient Department

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Abstract:
Background: *Cervical cancer is the fourth most common cancer in women worldwide whereas it ranks the 1st most frequent preventable cancer among Nepalese women. This study was aimed to assess awareness regarding cervical cancer and screening practices among reproductive age group (15-49 years) females.*
Materials and Methods**:** *A descriptive cross sectional study was carried out among 412 females attending female OPD of Patan hospital, Lalipur, Nepal. Non probability purposive sampling technique was used for selection of sample and data was collected by structured interview schedule. Obtained data were analyzed in descriptive and inferential statistics by using SPSS version 16.*
Results*: The findings of the study revealed that that more than half (54.6 %) of the women had fair knowledge, nearly one third (30.8 %) had poor knowledge and very few (14.6%) had good knowledge regarding cervical cancer. Regarding practice, only 16.6% of married women had undergone screening of cervical cancer and main reason of not doing pap smear test was having no symptoms (66.5%). Marital age, education, occupation and family type had significant association with level of awareness regarding cervical cancer.*
Conclusion: *The study revealed that nearly half of reproductive age women had fair knowledge and very few had undergone for screening. So, health education as well as screening programs should be launched to prevent women from cervical cancer.*
Key words: *Awareness, Cervical cancer, Pap smear, Reproductive age, Screening*

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I. Introduction

Cervical cancer starts in the cells lining the cervix, the lower part of the uterus. It is the fourth most common cancer in women and the eighth overall, with an estimated 604127 new cases and 341831 deaths worldwide in 2020.[1] Cervical cancer was once one of the most common causes of cancer death for American women. But over the last 40 years, the death rate has gone down by more than 50% with increased use of the Pap test.[2] The prevalence of cervical cancer in low to middle income countries were four times higher compared with that in developed countries.[3] It is the leading cause of cancer-related death in women in eastern, western, middle, and southern Africa.[4]

In India, cervical cancer ranks as the 2nd most frequent cancer among women with every year 123907 new cases and 77,348 death whereas in Nepal, it ranks the 1st most frequent cancer among women. Current estimates indicate that every year 2244 women are diagnosed with cervical cancer and 1493 die from the disease. [1] The awareness of symptoms of cervical cancer even in educated Nepalese women was found unsatisfactory[5]. It is usually diagnosed at advanced stage.[6] If found early, it is highly treatable and associated with long survival and good quality of life.[7] Thus, the study aims to assess awareness and screening practices of Cervical Cancer among reproductive age women.

II. Materials and Methods

The descriptive, cross-sectional study was conducted among reproductive age (15-49) women from female OPD of Patan hospital, Lalitpur, Nepal. Non Probability purposive sampling was used to select sample who met the inclusion criteria and total 412 samples was taken for the study.

Study Design: Descriptive cross sectional study
Study Location: This was tertiary hospital based study conducted in Female Out Patient Department.
Study Duration: January 2019 to January 2020
Sample size: 412 women
Sample Size calculation: Sample size was calculated by using Cochran (1963: 75) Equation 1 to yield a representative sample for proportion.

$n_0 = Z^2pq/d^2$

Where, n_0=Minimum sample size required for study, z = 1.96 at 95% confidence level, p = percentage category for which we are computing the sample size and q =1-p, d = margin of error at 5%. Assuming a non response rate of 10%, sample size was 412 for the study. Pretesting of was done among 42 visitors (reproductive age) of postpartum ward and Cronbach's alpha was calculated 0.803 for knowledge related questions.

Procedure methodology

Ethical approval was obtained from Institutional review Committee of Patan Academy of Health Sciences (PAHS) and administrative approval was obtained from hospital authorities. After obtaining, written informed consent, data was collected by using structured interview schedule. Socio demographic questions consists of: age of women, address, educational status, occupation, types of family, marital status, age of marriage and family history of cancer. There were11 awareness related questions. The total percentage score was categorized as: 0-49% = Poor knowledge, 50-74% = Fair knowledge and 75-100% = Good knowledge.[8] Collected data was edited, coded and entered in SPSS 16 version and analyzed by using simple descriptive statistics (frequency, percentage and mean) and inferential statistics (chi-square).

III. Results

Table 1 shows that nearly half (46.6%) of respondents were on age group between 21-30 years with mean value of age 30.65with standard deviation 7.826 and only 10.7% were on age less than or equals to 20 years. Most (92.5%) of the respondents were literate and among them, 28.6% had studied secondary level. Regarding occupation, more than half (51.9%) of respondents were housewife and 10.4% were in agriculture. More than half (52.4%) of respondents were living in nuclear and nearly half (47.6%) in joint family. Majority (81.8%) of respondents was married and nearly half of them (49.9%) were married in between age of 18 and 23.

Table 1: Socio demographic Information n=412

Charaterstics	Frequency	Percent
Age in years		
≤ 20	44	10.7
21-30	192	46.6
31-40	117	28.4
≥ 41	59	14.3
Mean age ± SD	30.65 ± 7.826	
Educational status		
Illiterate	31	7.5
Literate	381	92.5
If literate (n=381)		
Read and write only	92	24.1
Primary	88	23.0
Secondary	109	28.6
Bachelor and above	92	24.1
Occupation		
Housewife	214	51.9
Agriculture	43	10.4
Business	66	16.0
Service	89	21.6
Family type		
Nuclear	216	52.4
Joint	196	47.6
Marital status		
Married	337	81.8
Unmarried	75	18.2
If married,(n=337) age (in years)		
12-17	41	12.2
18-23	168	49.9
24-29	128	38

Table 2 depicts majority (90.5%) of respondents answered that therisk factor of cervical cancer was poor genital hygiene followed by sexually transmitted infections (74.3%),multiple sexual(71.8%),early sex before 17 years(54.4%) and least (3.8%) answered not using condom during sex. Regarding signs and symptoms, majority (86.7%) mentioned foul smelling discharge followed by vaginal bleeding during or after sex (57.3%) and heavy bleeding during menstruation (52.7%).

Table 2: Respondents' Response regarding Risk Factors and Sign and Symptoms of Cervical Cancer

n=412

Items	Frequency	Percent
Risk Factors[a]		
Family history of cervical cancer	166	40.3
Sexually transmitted infections	306	74.3
Multiple sexual partners	296	71.8
Long time oral contraceptive pills	171	41.5
Smoking cigarette	142	34.5
Early sex before 17 years	224	54.4
Having many children	117	28.4
No condom use during sex	16	3.8
Poor personal hygiene	373	90.5
Signs and Symptoms[a]		
Vaginal Bleeding during or after sex	236	57.3
Bleeding after menopause	204	49.5
Vaginal bleeding between periods	176	42.7
Persistent lower back pain	185	44.9
Foul smelling discharge	357	86.7
Discomfort or pain during sex	203	49.3
Heavy bleeding during menstruation	217	52.7

Note: [a] multiple response

Figure 1 depicts that more than half (54.6 %) of the respondents had fair knowledge, nearly one third (30.8 %) of the respondents had poor knowledge and vary few (14.6%) had good knowledge regarding cervical cancer with mean 20.19 and 6.08 standard deviation.

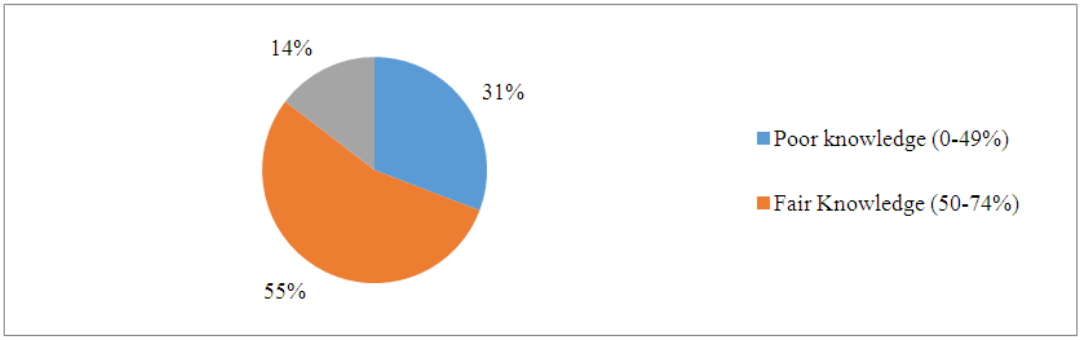

Figure 1: Respondents' Level of Awareness regarding Cervical Cancer

Table 3 reveals the screening practice of cervical cancer among reproductive age women. Among 337 married respondents, only 16.6% had undergone screening of cervical cancer. Among them, most of them (92.9%) had done pap smear test and only 7.1% did VIA. Majority (62.5%) did screening only once and 10.7% did more than 3 times. 76.7% did screening in hospital where as 10.7% did in health camp. 60.7% felt pain and 64.2% felt discomfort during the procedure. Among respondents, 86.4 % were never screened. The reasons for not screening were not having symptoms (66.5%) and do not know where to check (0.2%).

Table 3: Screening Practice of Cervical Cancer among Married Women

n=337

Characteristics	Frequency	Percent
Cervical cancer screening practice		
No	281	83.3
Yes	56	16.6
If yes, (n=56)[a]		
PAP	52	92.9
VIA	4	7.1
Frequency of screening		
One time	35	62.5
2-3 times	15	26.7
More than 3times	6	10.7
Place for screening		
Health camp	6	10.7
Hospital	43	76.7
Clinic	7	12.5

Pain during screening		
No	22	39.2
Yes	34	60.7
Discomfort during screening		
No	20	35.7
Yes	36	64.2
Reasons for not screening[a] (n=356)		
No symptoms	237	66.5
Not at risk	82	23
No knowledge	38	10.6
Embarrassment	3	0.84
No time	2	0.56
Don't know where to go for check up	1	0.2

Note: [a] multiple response, VIA: Visual Inspection of Acetic acid

Table 4 shows association between different demographic variables and level of awareness regarding cervical cancer. Significant association is found between level of awareness and marital age, education, occupation and family type where p value <0.05 whereas no significant association was found in between awareness level and age of respondents and marital status (P >0.05).

Table 4: Association between Demographic Variables and Awareness regarding Cervical Cancer

n=412

Variables	**Level of awareness**			**P –value**
	Poor knowledge	**Fair and good Knowledge**	**Chi square value**	
Age (in years)				
16-30	75(59.1%)	161(56.5%)	.236	.627
31-49	52(40.9%)	124(43.5%)		
Marital age (in years)				
12-17	18(17%)	23(10%)	3.355	.067
18-29	88(83%)	208(90%)		
Education level				
Illiterate	23(18.1%)	8(2.8%)	29.568	.000
Literate	104(81.9%)	277(97.2%)		
Occupation				
Indoor work (Housewife)	77(60.6%)	137(48%)	5.552	.018
Outdoor work(other than housewife)	50(39.4%)	148(51.9%)		
Family type				
Joint	71(55.9%)	125(43.9%)	5.111	.024
Nuclear	56(44.1%)	160(56.1%)		
Marital status				
Married	106(83.5%)	231(81.1%)	.343	.558
Unmarried	21(16.5%)	54(18.9%)		

Note: P-value under chi - square test < 0.05 – Significant (S)
P-value under chi - square test > 0.05 – Non significant (NS)

IV. Discussion

Nearly half (46.6%) of women were of 21-30 years and only 10.7% were on age less than or equals to 20 years. Similarly, most (92.5%) of the respondents were literate and among them, 28.6% had studied secondary level. Regarding occupation, more than half (51.9%) of respondents were housewife and 49.9% were married in between age of 18 and 23 years.

Regarding risk factors, 71.8% mentioned that multiple sexual partners as a risk factor for cervical cancer. This finding is in consistent with the study findings from Nigeria, Nepal and Slovakia, with 83.3%,61.6% and 53.3% respectively[8,9,10] and contradicted with studies conducted in Southern Ethopia and Manglore and Ahmdabad where findings were much lower.[11-13] Similarly, 28.4% responded having multiple children / multiparity is another risk factor which in accordance with findings of India (20.8%) [12] and Pakistan (29%).[14]

Likewise, early sex (54.4%) was one of the risk factor which is in contrast with study done in India which is much lower (20%).[12] Contraceptive as a risk factor was mentioned by 41.5% in this study which is much higher than Pakistan (19.7%).[14]. Most of women (90.5%) answered poor personal hygiene as a risk factor of cervical cancer which is similar with study from Manglore, india[12] and Nepal[9] where 59.2% and 65.2% mentioned it respectively. These differences might be due to sample size and setting of the studies.

Furthermore, in this study regarding sign and symptoms of cervical cancer, majority of respondents (86.7%) answered foul smelling vaginal discharge which is consistent with Indian study which was 94.2 %[13] and

it is higher than study in Slovakia (48%)[10] and Pakistan (23%).[14] Similarly, in this study, 42.7% mentioned vaginal bleeding between periods and 49.3% mentioned pain discomfort during sex. These findings are supported by study done in Slovakia.[10] The current study revealed that more than half (54.6 %) of the respondents had fair knowledge and nearly one third (30.8%) of the respondents had poor knowledge and 14.6% had good knowledge. This findings is contradicted by study done in Nigeria which revealed that 53.3% respondents had poor knowledge, 38.4% respondents had fair knowledge and 8.3% had good knowledge.[8]

Regarding screening practices, among married women only 16.6% had undergone screening of cervical cancer. This finding is in accordance with the findings from studies conducted in Nepal, Nigeria, Nepal and Ethiopia where results were 13.3, 16.6% and 9.9%18.8%,respectively.[15,8,9,11] Majority (15.4%) did PAP test in comparision to VIA which is similar with studies[16,17,9] Among respondents, 86.4 % never been screened. This result is similar with the findings from Chitwan, Nepal[15] where 82.25% never did screening for cervical cancer. In the current study, the reasons for not screening were not having symptoms (66.5%), not being at risk (23%), embarrassment (.84%), and did not know where to go for checkup (0.2%). These findings were similar with findings from Nepal [15] where reasons were: didn't feel susceptible (78.09%), having no symptoms (17.79%), embarrassment (2.49%) and didn't know where to go (1.27%).

V. Conclusion

Based on the findings of the study it is concluded that more than half of the respondents had fair knowledge, nearly one third of the respondents had poor knowledge and vary few had good knowledge regarding cervical cancer. In this study, very less percentage had undergone screening of cervical cancer and majority of them had done pap smear. Marital age, education, occupation and family type had significant association with level of awareness regarding cervical cancer. So, health education programs should focus on increasing knowledge of women on pap smear test.

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