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Awareness and Risk Factors of Cancer Cervix among Women Undergoing Pap Smear Test

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ABSTRACT

Introduction: Cervical cancer is one of the most common cancers worldwide. In India, it is one of the leading causes of mortality among women accounting for 23.3% of all cancer deaths. India accounts for about 20% of cervical cancer cases reported from the world. More than three-fourths of these patients are diagnosed in advanced stages leading to poor prospects of long-term survival and cure. Early detection of cervical cancer is possible with pap smear tests. The purpose of the study is to assess the awareness and risk factors of cancer cervix among women undergoing pap smear tests.

Methods: The present study adopted a nonexperimental explorative design. The total sample was 150. A purposive sampling technique was used to select the samples at IMS and SUM Hospital, Bhubaneswar. The tools used to collect the data were as follows: 1. Demographic questionnaire, 2. Structured questionnaires based on awareness of cancer cervix, and 3. Structured questionnaire to assess the risk factors for cancer cervix. Data was collected by Questionnaire method. Descriptive and inferential statistics were used to analyze the data.

Result: A total of 150 women participated in the study and it was revealed that maximum participants had average knowledge (76%), 12.66% of the participants had poor knowledge where as 11.3% had good knowledge. Approximately, one-third (36%) of the participants had the highest risk factor. Association between level of knowledge and demographic variables depicts that there is significant statistical association found between knowledge level and age (x^2=16.009, p =0.002). And association between level of risk of developing cervical cancer and demographic variables depicts that there is significant statistical association found between risk level and age (x^2 =9.891, p=0.017), number of children (x^2=11.644 p=0.010), present complain of pap smear test (x^2=17.327, p=0.001).

Conclusion: The result of the present study concluded that there is a need to create awareness related to risk factors of cervical cancer in women undergoing pap smear tests.

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KEYWORDS: *Cervical cancer, Pap smear test, Awareness, Risk factor*

INTRODUCTION

Cervical Cancer, a type of Gynaecological Cancer is the second leading cause of death among women aged 15 years to 44 years, following heart disease, globally. This presents a significant burden on societies worldwide. Unfortunately, a large number of women, particularly those in rural areas, do not undergo cervical cancer screening, resulting in approximately half a million new cases of invasive cervical cancer each year.[1]

The proportion of women who undergo pap smear testing ranges from 68-84% in developed countries as compared to India where the rates range from 2.6-6.9% among women in communities. So, if women in India undergo screening for cervical cancer, it is possible to detect cancer in early stages thereby reducing mortality and morbidity.[2]

When cervical cancer happens, it's often first treated with surgery to remove the cancer. Other treatments may include medicines to kill the cancer cells. Options might include chemotherapy and targeted therapy medicines. Radiation therapy with powerful energy beams also may be used. Sometimes treatment combines radiation with low-dose chemotherapy. Cervical cancer begins when healthy cells in the cervix develop changes in their DNA. Most cervical cancers are caused by HPV. HPV is a common virus that's passed through sexual contact. For most people, the virus never causes problems. It usually goes away on its own. For some, though, the virus can cause changes in the cells that may lead to cancer.[3]

A Pap smear, also called a Pap test, uses to test for cervical cancer in women. It can also reveal changes in the cervical cells that may turn into cancer later. A Pap smear is done to look for changes in cervical cells before they turn into cancer. If the woman has cancer, finding it early on gives her the best chance of fighting it. If she doesn't, finding cell changes early can help prevent her from getting cancer. If the woman is between the ages of 21 and 65, she should have a Pap smear regularly. How often she does depend on her overall health and whether or not she has had an abnormal Pap smear in the past.[4]

The known risk factors for developing cervical cancer are human papillomavirus (HPV), low socio-economic status, smoking, marrying before the age of 18 years, young age at the first coitus, having multiple sexual partners, multiple sexual partners of a spouse, and multiple childbirths. These factors raise the risk of developing cervical cancer. It has now been proven that HPV is the major causative factor of carcinoma of the cervix. HPV types 16, 18, 31, 33, and 45 are mostly related to invasive carcinoma of the cervix. An increasing number of steady partners and young age at first sexual intercourse increase the probability of developing cervical cancer.

However, women lack knowledge regarding risk factors and screening for cervical cancer. Poor women and women with low socioeconomic do not undergo screening for cervical cancer (such as Pap tests). They lack awareness of these health services, while some ignore the symptoms because of shyness. Thus, they are not screened or treated adequately for cervical cancer.[5]

To create awareness among women who undergo pap smear testing and give knowledge regarding risk factors of cervical cancer also improve awareness of detection and screening methods. A Pap smear involves collecting cells from the cervix. Detecting cervical cancer early with a Pap smear gives a greater chance at a cure. A Pap smear can also detect changes in the cervical cells that suggest cancer may develop in the future. Detecting these abnormal cells early with a Pap smear is the first step in halting the possible development of cervical cancer.[6]

METHODS AND MATERIALS

The quantitative research approach with descriptive design had been considered as the most appropriate method for this study. The study design selected for the present study was non experimental explorative design. The study was carried out in the Gynaecology OPD of IMS & SUM Hospital, Bhubaneswar, Odisha. One fifty (150) women attending OPD were selected. Women can understand Odia language and available during data collection period were included in the study. Institutional Ethical Committee (IEC) and administrative permission was taken from IMS & SUM Hospital. The tools used to collect the data were as follows: 1. Demographic questionnaire, 2. Structured questionnaires based on awareness of cancer cervix, and 3. Structured questionnaire to assess the risk factors for cancer cervix. Data was collected by Questionnaire method. The data analysed using descriptive and inferential statistics with SPSS 25 version.

RESULTS

Table No -1: Frequency and percentage distribution of the study sample according to the sociodemographic variables

(N=150)

Sl. No.	Sociodemographic data	Frequency	Percentage
1	**Age**		
	20-30	31	20.7%
	31-50	94	62.7%
	51-60	25	16%

2	**Educational status**		
	No formal education	5	3.3%
	Secondary education	38	25.3%
	Higher Secondary education	48	32%
	Graduate and above	59	39.3%
3	**Marital status**		
	Single	2	1.3%
	Married	146	97.3%
	Divorce	2	1.3%
4	**Occupation**		
	Housewife	89	59.3%
	Working	61	40.7%
5	**Types of family**		
	Nuclear family	71	47.3%
	Extended family	57	38%
	Joint family	18	12%
	Single parent family	4	2.7%
6	**Religion**		
	Hindu	97	64.7%
	Christian	37	24.7%
	Muslim	16	10.7%
7	**Area of residence**		
	Rural	55	36.7%
	Urban	95	63.3
8	**Monthly family income**		
	30000 and less	23	15.3%
	30001-60000	77	51.3%
	60001-90000	49	32.7%
	Above 90000	1	0.7%
9	**Number of children**		
	One	63	42%
	Two	45	30%
	three	28	18.7%
	More than three	14	9.3%
10	**Age of marriage**		
	< 18 years	17	11.3%
	18-20years	24	16%
	21-30 years	100	66.7%
	>30 years	9	6%
11	**No. of sexual intercourse / week**		
	1 time	42	28%
	2 time	77	51.3%
	3 time	30	20%
	More than 3 times	1	0.7%

12	**Sign and symptoms of cervical cancer**		
	Abnormal vaginal bleeding	49	32.7%
	Painful sexual intercourse	77	51.3%
	Pain in pelvic region	23	15.3%
	Problem in bowel movement	1	0.7%
13	**Present complaint for pap smear test**		
	Bleeding	31	20.7%
	Itching in genitals	53	35.3%
	Abdominal pain	17	11.3%
	White discharge	49	32.7%

Table No -1 depicts the demographic characteristics of women undergoing pap smear test. Majority (62.7%) of woman aged between 31-50 years i.e reproductive age. Highest percentage of them had an educated up to graduate and above (39.3%) and were housewife (59.3%). Most (97.3%) of them were married. Highest percentage (47.3%) of the women belongs to nuclear family. More than half of the women (64.7%) belongs to Hindu religion. Highest percentage of women were from urban area (63.3%) and had the monthly family income between 30000 to 60000 (51.3%). Number of children of the women shows that highest percentage (42%) of women had one child. Age of marriage of the women shows that highest percentage (66.7%) of women got married between 21 to 30 years. Nearly half of the participants (51.3%) having sexual intercourse 2 times a week. Abnormal vaginal bleeding (32.7%), Painful sexual intercourse (51.3%), Pain in pelvic region (15.3%) & Problem in bowel movement (0.7%) were the signs and symptoms experienced by the women at present. Bleeding (20.7%), Itching in genitals (35.3%), Abdominal pain (11.3%) & White discharge (32.7%) were the reason for undergo pap smear test.

Table No-2: Level of knowledge on cancer cervix among women undergoing pap smear test.

(N=150)

Level of knowledge	Knowledge score	Frequency	Percentage
Poor knowledge	0-7	19	12.66%
Average knowledge	8-14	114	76%
Good knowledge	15-21	17	11.3%

Table No -2 depicts the level of knowledge on cervical cancer. Highest percentage (76%) had average knowledge that depicts the score of 8-14, followed by approximately equal percentage had poor knowledge (12.66%) depicts the score of 15-21. Whereas, only 11.3% had good knowledge. It can be interpreted that most of them are not aware about the cervical cancer.

Table No-3: Level of level of risk for cancer cervix among women undergoing pap smear test.

(N=150)

Level of risk	Risk factor score	Frequency	Percentage
Low risk	1-3	96	64%
High risk	4-7	54	36%

Table No -3 depicts the level of risk for developing the cervical cancer. Nearly 1/3rd (36%) of women had high risk for developing cancer cervix and depicts the risk score of 4-7. Nearly two third (64%) of participants had high risk for developing cancer cervix and depicts the risk score of 1-3. Hence, it can be interpreted that they need proper awareness regarding prevention of cancer cervix.

Association between level of knowledge with socio demographic variable.

Association between level of knowledge and demographic variables depicts that there is significant statistical association found between knowledge level and age ($x^{2=}$16.009, p =0.002). Hence, it can be interpreted that level of knowledge was not influenced by most of the variables.

Association between level of risk for developing cancer cervix with their socio demographic variable.

Association between level of risk of developing cervical cancer and demographic variables depicts that there is a significant statistical association found between risk level and age (x^2 =9.891, p=0.017), number of children (x^2=11.644 p=0.010), present complain of pap smear test (x^2=17.327, p=0.001).

Hence, it can be interpreted that risk score was not influenced by most of the variables.

DISCUSSION

In present study the level of knowledge depicts highest percentage (76%) had average knowledge of that depicts the score of 8-14, followed by approximately equal percentage had poor knowledge (12.66%) depicts the score of 15-21. Hence it can be interpreted that majority of women had average knowledge only.

Yörük S et.al. found that, about 74% of women had heard of cancer cervix. The knowledge regarding risk factors and warning symptoms of cancer cervix was found to be good in this study. The mean age of the participants was found to be 33.3 ± 7.4 (minimum = 22; maximum = 55). 35.0% of the participants had undergone Pap smear testing at least once in their lifetimes. The most common reason for not having undergone Pap smear testing was found to be negligence. The statistical significance level was taken to be $P < 0.05$.[7]

Bahri N et.al. found that, most of the women had low knowledge (59.4%) about this test. According to the findings, 375 women (37.6%) had done this test so far. Findings indicated that the extent of knowledge had a meaningful relationship with the attitude status ($p<0.0001$). Also, there was a meaningful relationship between knowledge and practice, so that the weakest practice was seen in women who had weak knowledge (61.1%), ($p<0.0001$). According to findings of this research, most women do not have an appropriate knowledge about the necessity of having the Pap smear test, so that only a low percentage of women had undergone this test.[8]

In present study level of risk factor depicts highest percentage (64%) had lowest Risk that depicts the risk score of 1-3 and 36% had highest risk and depicts the risk score of 4-7. One third of women had highest risk to develop cancer cervix. They need proper awareness regarding prevention of cancer cervix.

Jalilian F et.al. determined factors related to doing regular Pap-smear test among women aged 20 to 70 years old based on the theory of planned behaviour. Almost 63.8% of the participants had already done Pap-smear test at least once. About 28.3% of volunteers had followed a regular Pap-smear program. There was a significant correlation ($p<0.002$) between family history of cervical cancer and undergoing regular Pap-smear test. In addition, there was a significant correlation ($p<0.001$) between age and undergoing regular Pap-smear test. The best predictor for regular Pap-smear testing was subjective norms with odds ratio estimate of 1.14.[9]

Alex gitonga mugo et.al. found that most women 47.7% (165) identified inheritance as a risk factor that could lead to the development of cervical cancer, 40.2% (139) of them identified having STDs as a risk factor to cervical cancer, 39.3% (136) identified multiple sexual partners as a risk factor, 34.4% (119) identified smoking as a risk factor for cervical cancer while only 29.8% (103) participants identified HPV as a risk factor. Other risk factors that were identified by the participants included: use of hormonal contraceptives 12.1% (42) and oral contraceptives 10.4% (36), Immunosuppression 26% (90), early sexual debut 28% (97) and early pregnancy 13% (44). In addition, 12.4% (43), 7.8% (27) and 5.5% (19) of the participants thought that old age, diet, and poverty respectively could put one at risk of developing the disease. These findings indicate that most 76.6% (265) of the respondent were not aware of the most common risk factors for cervical cancer. The mean percentage was 23.4% for women who were knowledgeable about risk factors associated with cervical cancer.[10]

CONCLUSION

Cervical cancer is highly preventable and highly curable disease if caught early. Nearly all cervical cancers could be prevented by HPV vaccination, routine cervical cancer screening, and appropriate follow-up treatment. So there is a need to create awareness about prevention of cervical cancer among women who is having high factor for developing cervical cancer.

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