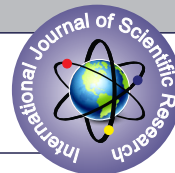


CERVICAL CANCER PREVENTIVE HEALTH BEHAVIOR AND ITS FACILITATORS & BARRIERS AMONG WOMEN (18-60 YEARS)



Gynaecology

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ABSTRACT

Introduction: Cervical cancer is an abnormal growth of the cells in the body of cervix. Cervical cancer is fourth leading cause of morbidity and mortality among women in low and middle- income countries. Early screening of the cervical cancer is found effective in reducing morbidity and mortality in the developed country.

Material And Methodology: 300 women were selected by convenience sampling and door to door survey from Chandmari area, Doiwala, Dehradun. Interview method and semi structured questionnaires was used to collect the data from participants. Data was analyzed using descriptive and inferential statistics.

Results: The mean score of General Health Promotion Behavior was 133.39+ 16.49 (64%). Among 300 participants proportion of women undergone Pap smear screening and HPV vaccination were 28 (9.3%) and 27 (9%) respectively. Awareness related to cervical cancer was good in 48 (16%), average in 216 (72%) and poor in 36 (12%) of participants. There is significant association between cervical cancer preventive health behavior, awareness regarding cervical cancer and selected demographic variables.

Conclusion: General health promotion was lacking in the areas such as physical activity, health responsibility. Screening and vaccination behavior is also very less among participants so creating awareness programs will be helpful in the prevention of cervical cancer and improving the health behavior.

KEYWORDS

Cervical Cancer, Awareness, Preventive Health Behavior, Awareness Program.

INTRODUCTION

Cancer is a large group of diseases that can start from any organ or tissue of the body.. Cancer mortality rate was increased by 6% between 2012 and 2014. More than 1300 Indians died due to cancer every day. In 2012, out of 2,934, 314 cases 4, 78,180 deaths were recorded in India.¹ In 2018, 1.16 million new cancer cases were estimated in India. According to a report of WHO, Cancer will develop 1 in 10 Indians during their lifetime and 1 in 15 will die due to this.²

Cervical cancer is an unusual progress of the cells in body of cervix. It is fourth major cause of illness and death in women after breast, colorectal and lung cancer. It accounts for 6.6 % of all female cancers.³ Approximately 5, 70,000 new cases and 311,000 death due to cervical cancer was recorded worldwide in 2018. China and India has 35% of global burden of cervical cancer together.⁴ Cervical cancer prevalence is highest 23.07/100,000 in Mizoram state and lowest 4.91/100,000 in Dibrugarh district, Assam.⁵ and in Uttarakhand prevalence rate is 14.86%.⁶

All the cases of cervical cancer are related to the increase risk HPV infection and transmitted through the sexual contact. Women often infected with human Papilloma virus in their teens, 40s or 50s. Risk factors of cervical cancer include early age at first sexual activity, more than one partner, low socio-economic level, multi parity etc.

The increased mortality and morbidity rate of cervical cancer over worldwide can be decreased with an extensive approach which includes the early detection or diagnosis, prevention, essential screening program and treatment also.⁷

OBJECTIVE

The aim of the present study is to explore cervical cancer preventive health behavior, and facilitators & barriers among women (18-60 years) in selected community area of Dehradun.

METHODOLOGY

The research design adopted for the present study is exploratory survey design. A total of 300 participants were selected by convenience sampling technique from Chandmari area, Doiwala, Dehradun. Interview method, semi structured questionnaires and Health promoting lifestyle profile II were used to collect data.

RESULTS

Section 1

Baseline data

This section presents the information on socio demographic data and health related data. Demographic characteristics of sample presented in table 1.

Table 1. Distribution Of Sample Based On Demographic Data

N= 300

S.No	Demographic Data	Frequency	Percentage
1.	Age in years		
a.	18-25	60	20
b.	26-35	88	29.3
c.	36-45	96	32
d.	46-55	42	14
e.	56-60	14	4.7
2.	Educational status		
a.	No formal education	30	10
b.	Primary education	61	20.3
c.	Secondary education	59	19.7
d.	Higher Secondary	81	27
e.	Graduation and above	69	23
3.	Occupation		
a.	Employed	16	5.3
b.	Unemployed	274	91.3
c.	Daily wages	10	3.3
4.	Religion		
a.	Hindu	267	89
b.	Muslim	32	10.7
c.	Sikh	1	0.3
5.	Marital status		
a.	Married (living with spouse)	176	58.6
b.	Married (living in long distance)	72	24
c.	Unmarried	40	13.3
d.	Widow	10	3.3
e.	Divorced	2	0.6
6.	Number of children		
a.	One	40	13.3
b.	Two	127	42.3
c.	More than 2	85	28.3
d.	No child	48	16

Table 1 shows that the 32% of women were between 36-45 years age group. Most of the women (50%) were educated between intermediate to graduation & above. Majority of women (91.3%) were unemployed. About 70.6% of women were mother of more than one child.

Table 2. Distribution Of Sample Based On History Of Illness
N=300

S. No.	History of illness	Frequency	Percentage
1.	Hypertension	52	17.3
2.	Diabetes mellitus	23	7.7
3.	Cancer	17	5.7
4.	Heart disease	1	0.3
5.	Kidney disease	1	0.3
6.	Liver disease	1	0.3
7.	Nil	205	68.3

Table 2 shows that most common illness among sample was hypertension 52 (17.3%) and Diabetes 23 (7.7%). History of Cancer was reported by 17 (5.7%) participants.

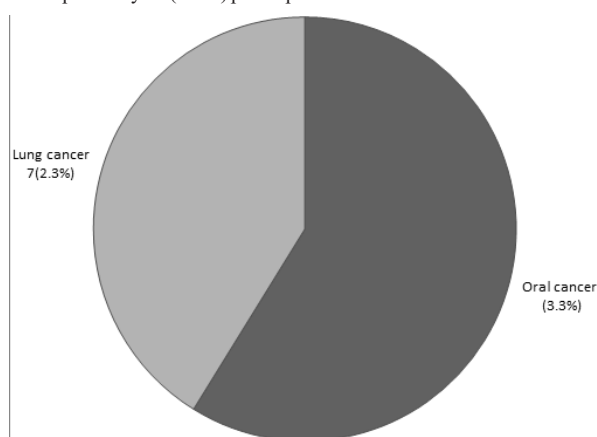


Figure: 1 Distribution Of Women With Cancer Based On History Of Cancer (n=17)

Figure 1 shows that cancer prevalent was Oral cancer in 10 (3.3%) and lung cancer in 7 (2.3%) of the participants.

Section 2

Cervical cancer preventive health behavior

Section 2.1. General Health Promotion Behavior

The general health promotion behavior of the participants was measured in the health promoting lifestyle profile II & classified into Good, Average and Poor based on the scores obtained.

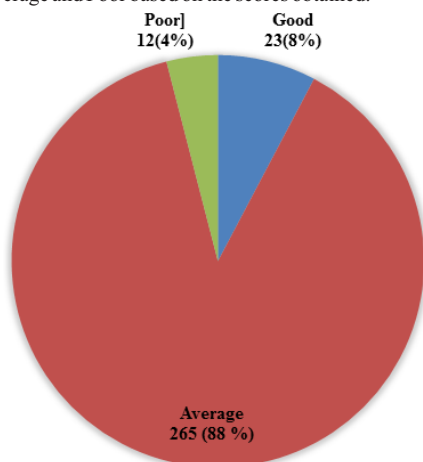


Figure: 2 Distribution Of Sample Based On General Health Promotion Behavior

Figure 2 shows that General Health Promotion Behavior was Average in 265 (88%), Good in 23 (8%) and Poor in 12 (4%) of the participants.

The frequency distribution of the sample based on health preventive behavior score is presented as histogram in figure no. 3

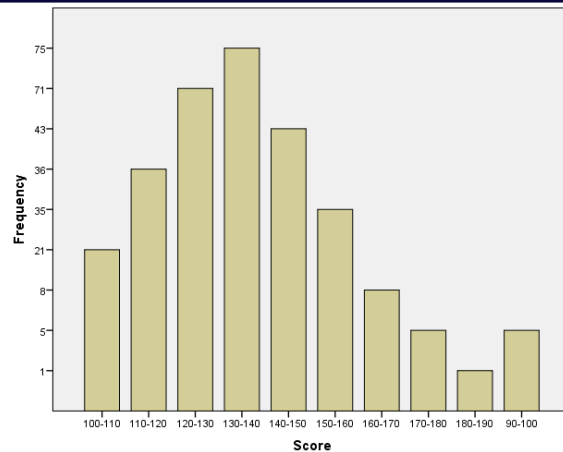


Figure: 3 Histogram Showing The Distribution Of Sample Based On Health Promotion Behavior.

Figure 3 shows that it is a positively skewed distribution with the frequency of the classes decreasing increase in the score. The modal class is 130-140.

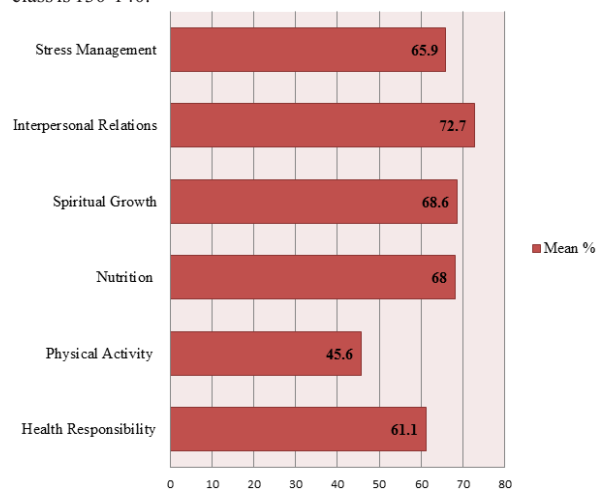


Figure: 4 Bar Diagram Showing The Mean General Health Promotion Behavior Under Different Domains (n=300)

Section 2.2. Specific Cervical Cancer Preventive Health Behaviors

Table 3. Distribution Of Sample Based On Specific Cervical Cancer Preventive Health Behaviors

S.No.	Cervical Cancer Preventive Behaviors	F	%
Healthy Behaviors			
1.	Under gone PAP smear	28	9.3
2.	HPV Vaccination	27	9
Risky Behavior			
1.	Married before 18 years	27	9
2.	Sexual activity before 18	46	15.3
3.	Use of oral pills more than 1 year	7	2.3
4.	History of Genital infection	4	1.3

Table 3 shows that among the 300 participants only 28 (9.3%) had undergone Pap smear and 27 (9%) undergone vaccination. Risky behavior observed were; married before 18 years [27 (9%)], sexual activity before 18 years [46 (15.3%)], use of oral pills more than 1 year [7 (2.3%)] and history of genital infection [4 (1.3%)].

Section 3

Facilitators & barriers of cervical cancer Preventive health behavior

Table 4. Distribution Of The Participants Based On Facilitators For Specific Cervical Cancer Preventive Health Behavior

Facilitator	Yes	
S.No.	Pap smear (n=28)	F %
1.	Friends advice	18 64
2.	Family history of cervical cancer	1 3.5

3.	Doctors advice for screening	8	29
5.	Attended awareness program	1	3.5
HPV Vaccination (n=27)			
1.	Physician advice	15	56
2.	Awareness about vaccination	12	44

Table 4 shows that common facilitators for adopting health preventive behavior related to Pap smear screening was friend's advice [18 (64.2%)], Doctors advice [5 (17.85%)] and own decision [4 (14.2%)]. Most common facilitator for adopting vaccination related preventive health behavior is physician advice [15 (55.5%)], Awareness about vaccination [13 (48.1%)] among sample.

Table 5. Distribution Of Sample Based On Barriers For Specific Cervical Cancer Preventive Health Behavior

Barriers		No	
S.No.	Pap smear (n=272)	F	%
1.	Never heard about Pap smear	181	66.5
2.	Fear of procedure	96	35.2
3.	Fear of negative results	123	45.2
4.	Cost of screening Procedure	23	8.45
5.	Embarrassment	35	12.8
HPV vaccination (n=273)			
1.	Never heard about vaccination	181	66.3
2.	Not aware about the availability of health care facilities	96	35.1
3.	Distance from the health care centers	20	7.3
4.	Costly	19	6.9

Table 5 shows that the common barrier for adopting specific health preventive behavior is never heard about Pap smear screening [181 (66.5%)], fear of negative results [123 (45.2%)], fear of procedure [96 (35.2%)], cost of screening [23 (8.45%)] and embarrassment [35 (12.8%)] among participants. Most common barrier for adopting health promotion behavior is never heard about vaccination [181 (91%)], distance from health care centers 20 (7%), costly 19 (6.9%) among participants.

Section 4

Association between cervical cancer preventive health behavior and selected demographic variables

Table 6. Association Between General Health Promotion Behavior And Selected Demographic Variables N=300

S.No.	Variable	General health promotion behavior		χ^2	df	P value
		Below median <133	At or above median >133			
1.	Age in years			16.27	3	<0.001
	a.18-25	24 (40%)	36 (60%)			
	b. 26-35	33 (38%)	55 (62%)			
	c.36-45	52 (54%)	44 (46%)			
	d.46-55 & above	41 (73%)	15 (27%)			
2.	Educational status			13.82	2	<0.001
	a.No formal / Primary education	70 (77%)	21 (23%)			
	b.Secondary / Higher secondary education	63 (45%)	77 (55%)			
	c. Graduation and above	17 (25%)	52 (75%)			
3.	Occupation			10.83	1	<0.001
	a. Employed	3 (19%)	13 (81%)			
	b. Unemployed	147 (52%)	137 (48%)			
4.	Marital status			03.84	1	.003
	a. Married	121 (49%)	127 (51%)			
	b. Unmarried	29 (56%)	23 (44%)			
5.	Number of children			13.82	2	<0.001
	a. No child	20 (41%)	29 (59%)			
	b. 1-2 child	69 (42%)	97 (58%)			
	c. More than 2	61 (72%)	24 (28%)			

Table 6 shows that there is significant association between general health promotion behavior and selected demographic variables like age in years, education status, occupation, marital status ($p<0.05$) and number of children ($p<0.001$).

Table 7. Association Between Pap Smear Screening And Selected Demographic Variables N=300

S. No.	Sample Variable	PAP smear		χ^2	df	P value
		Yes	No			
1.	Age in years			16.27	3	<0.001
	a.18-25	14 (23%)	46 (77%)			
	b.26-35	10 (11%)	78 (89%)			
	c.36-45	4 (4%)	92 (96%)			
	d.46-55 & above	0	56 (100%)			
2.	Education			13.82	2	<0.001
	a. No formal / Primary education	0	91 (100%)			
	b.Secondary / Higher secondary education	6 (4%)	134 (96%)			
	c.Graduation and above	22 (32%)	47 (68%)			
3.	Occupation			10.83	1	<0.001
	a. Employed	11 (69%)	5 (31%)			
	b.Unemployed	17 (6%)	267 (94%)			
4.	Marital status			3.84	1	.020
	a. Married	19 (8%)	229 (92%)			
	b.Unmarried	9 (17%)	43 (83%)			
5.	Cervical cancer information			10.83	1	<0.001
	a. Yes	26 (31%)	59 (69%)			
	b. No	2 (1%)	213 (99%)			

Table 7 shows that there is significant association between pap smear screening and selected demographic variables like age in years, education status, occupation ($p<0.001$), marital status ($p<0.05$) and cervical cancer information ($p<0.001$).

Table 8. Association Between HPV Vaccination And Selected Demographic Variables N=300

S. No.	Sample Variable	HPV vaccination		χ^2	df	P value
		Yes	No			
1.	Age in years			16.27	3	<0.001
	a.18-25	13 (22%)	47 (78%)			
	b.26-35	10 (11%)	78 (89%)			
	c.36-45	4 (4%)	92 (96%)			
	d.46-55 & above	0	56 (100%)			
2.	Education			13.82	2	<0.001
	a. No formal / Primary education	0	91 (100%)			
	b.Secondary / Higher secondary education	5 (4%)	135 (96%)			
	c.Graduation and above	22 (32%)	47 (68%)			
3.	Occupation			10.83	1	<0.001
	a. Employed	11 (69%)	5 (31%)			
	b.Unemployed	16 (6%)	268 (94%)			
4.	Marital status			3.84	1	.019
	a. Married	18 (7%)	230 (93%)			
	b.Unmarried	9 (17%)	43 (83%)			
5.	Cervical cancer information			10.83	1	<0.001
	a.Yes	26 (31%)	59 (69%)			
	b.No	1 (0.5%)	214(99.5%)			

Table 8 shows that significant association is found between HPV vaccination and selected demographic variables like age in years, education status, occupation ($p<0.001$), marital status ($p<0.05$), cervical cancer information ($p<0.001$).

Table 9. Association Between Marriage Before 18 Years And Selected Demographic Variables N=300

S. No.	Sample Variable	Married before 18years		χ^2	df	P value
		Yes	No			
1.	Age in years			16.27	3	<0.001
	a. 18-25	0	60 (100%)			
	b. 26-35	9 (10%)	79 (90%)			

	c. 36-45	3 (3%)	93 (97%)			
	d. 46-55 & above	15 (27%)	41 (73%)			
2.	Education	25 (27%)	66 (73%)	13.82	2	<0.001
	a. No formal / Primary education					
	b. Secondary / Higher secondary education	2 (1%)	138 (99%)			
	c. Graduation and above	0	69 (100%)			
3.	Occupation	0	16 (100%)	10.83	1	<0.001
	a. Employed					
	b. Unemployed	27 (10%)	257 (90%)			

Table 9 shows that there is significant association between marriage before 18 years and selected demographic variables like age in years, education status, occupation ($p<0.001$).

Table 10. Association Between Sexual Pattern And Selected Demographic Variables
N=300

S. No.	Sample Variable	Sexual activity before 18 years		χ^2	Df	P value
		Yes	No			
1.	Age in years			16.27	3	<0.001
	a.18-25	3 (5%)	57 (95%)			
	b.26-35	13 (15%)	75 (85%)			
	c.36-45	8 (8%)	88 (92%)			
	d.46-55 & above	22 (39%)	34 (61%)			
2.	Education			13.82	2	<0.001
	a.No formal / Primary education	34 (37%)	57 (63%)			
	b. Secondary / Higher secondary education	9 (6%)	131(94%)			
	c. Graduation and above	3(4%)	66(96%)			
3.	Occupation			10.83	1	<0.001
	a.Employed	1 (6%)	15 (94%)			
	b.Unemployed	45 (16%)	239 (84%)			
4.	Cervical cancer information			10.83	1	<0.001
	a. Yes	3 (4%)	82 (96%)			
	b.No	43 (20%)	172(80%)			

Table 10 shows that significant association was found between sexual pattern and selected demographic variables like age in years, education status, occupation, cervical cancer information ($p<0.001$).

DISCUSSION

Findings of the study has been discussed in light of existing literature under cervical cancer preventive health behavior, facilitators and barriers and association between cervical cancer preventive health behavior and selected demographic variables.

General health promotion behavior was Good in 23 (8%), Average in 265 (88%) and Poor in 12 (4%) of participants. General health promotion behaviors mean score was 133.39 ± 16.49 .

A study conducted in AIMS, Kochi, Kerala in 2017 shows that general health promotion behavior was good in 62%, average in 28% and poor in 3% with the mean score of 100 ± 13.83 (maximum score 113.83).⁸

Among 300 participants only 28 (9.3%) of the women undergone Pap smear screening and only 27 (9%) of the women undergone HPV vaccination.

A descriptive study conducted among 450 women of Saudi shows that only 26% participants went for Pap smear test and less than 1 % HPV vaccination.⁹

CONCLUSION

General health promotion was lacking in the areas such as physical activity, health responsibility so focusing on those areas will help to improve the health promotion behavior among women. Along with that special focus to be done on the screening and vaccination areas.

Nursing Implication

1. Nurses taking care for the patient can start the bedside teaching and provide knowledge to the client about the cervical cancer.

2. In nursing curriculum a section on prevention of disease and promotion of health related to cervical cancer screening and vaccination can be included.

3. Administration can plan and organize continuing nursing education program and routine health education program for nursing staff to make them up to date with evidenced based knowledge.

Limitations

1. Study can be generated others areas of Dehradun for better generalization of findings.

2. Data related to practice was measured on the basis of the response of respondents and not observed by the investigator.

Recommendations

1. Further study can be done on beliefs of women about screening and vaccination for cervical cancer prevention.

2. Comparative study can be conducted among women of rural and urban areas to assess the facilitators and barriers of cervical cancer preventive health behavior.

3. Study on awareness can be conducted in other areas of Dehradun.

4. An exploratory study can be conducted on facilitators for adopting screening and vaccination related behavior.

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