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Effectiveness of Interventional Module on Knowledge and Attitude Regarding Prevention of Cervical Cancer Among Female College Students

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ABSTRACT

Objectives of the Study:
1. To assess the pre-test and post-test level of knowledge and attitude regarding prevention of cervical cancer among female college students
2. To assess effectiveness of interventional module on knowledge and attitude regarding prevention of cervical cancer among female college students
3. To associate the study findings with the selected demographic variable

Materials and Methods: A pre-experimental one group pre-test and post-test research design was adopted to assess the effectiveness of interventional module on knowledge and attitude regarding prevention of cervical cancer among female college students in Dimapur, Nagaland. A total of 185 subjects were selected using a total enumerative sampling technique. A self-administered structured questionnaire was used for collecting the data on knowledge and attitude regarding prevention of cervical cancer and interventional module was developed and administered to assess its effectiveness.

Results: The study findings showed that in the pre-test 86(46.48%) had inadequate knowledge, 84(45.4%) had moderately adequate knowledge and 15(8.1%) had adequate knowledge. While, 108(58.4%) had favorable attitude, 76(41.1%) had moderately favorable attitude and 1 (0.5%) had non-favorable attitude. The post-test findings revealed 123(66.5%) had adequate knowledge, 56(30.3%) had moderately inadequate knowledge and 6(3.2%) had inadequate knowledge. In attitude, 143(77.3%) had favorable attitude, 42(22.7%) had moderately favorable attitude and 0% had non-favorable, attitude. The mean change in knowledge score in the pre-test and post-test was 3.16(SD 2.27) and attitude was 1.45 (SD 2.71) which shows that the intervention used was effective. A significant association was found between knowledge with age, educational qualification and place of residence at p value less than 0.05

Conclusion: Our study revealed that interventional module on prevention of cervical cancer was effective in improving the knowledge and attitude among female college students.

Keywords: Cervical cancer, Interventional module, Knowledge, Attitude.

INTRODUCTION

Cervical cancer, a cancer of the cells of the cervix is caused due to the abnormal growth of cells that have the ability to invade or spread to other parts of the body. There are various risk factors associated with the disease; which can be prevented. Hence, the investigators were interested to assess the level of knowledge and attitude of female college students regarding prevention of cervical cancer and to determine the effectiveness of interventional module on knowledge and attitude.

Cervical cancer awareness and prevention have grown significantly over the years owing to educational campaigns and advancements in the screening methods like pap smears and HPV vaccines. Attitude towards cervical cancer have shifted towards proactive prevention and early detection, emphasizing the importance of regular screenings and vaccination, However, disparities in access to healthcare and information still exist, especially in the developing countries, impacting the awareness and attitudes among different demographics.

Cervical cancer is the fourth most common cancer affecting women worldwide, after breast, colorectal, and lung cancers, with 569 847 new cases every year. It is also the fourth most common cause of cancer death (311 365 deaths in 2018) in women worldwide. India contributed 28% of cervical cancer mortality burden with 87,090 deaths due to cervical cancer.[1] It is the 2nd most leading cause of female cancer among women aged 15-44 years in India. Lack of awareness, negative attitude, and poor practice, screening and preventive methods are the major causes that increase the incidence of disease.[2]

As per the National Cancer Registry Programme, cancer of breast and cervix uteri was the most common cancers among females. Cervical cancer accounted for 6-29% of all cancers among women in India. Papumpare district in the state of Arunachal Pradesh, India had the highest incidence rate of cervical cancer (27.7) in Asia. The majority of the patients with cervix uteri (60.0%) were diagnosed at the locally advanced stage. [3]

MATERIALS & METHODS

The study adopted a pre-experimental one group pre-test and post-test research design. It was done in a selected college in Dimapur, Nagaland where 185 female college students were recruited using total enumerative sampling technique. A self-administered structured questionnaire was used for assessing the knowledge and attitude and interventional module was developed and administered to assess the effectiveness regarding prevention of cervical cancer. The instrument used for data collection comprised of two parts. Part one consisted of the demographic variables like age, qualification, course of study, place of residence, previous information & source, relative previously diagnosed with cervical cancer. Part two consisted of knowledge questionnaire and attitude statements. Validity of the tool was obtained from five subject experts and the validity index obtained were 97.1% for knowledge questionnaire, 96.7% for attitude scale and 92.7% for the Interventional Module. The study was approved by the Nursing Committee and Institutional Review Board. Prior permission was obtained from the college authority and informed written consent were obtained from the participants after assuring anonymity and confidentiality. The data was analyzed using descriptive and inferential statistics.

RESULT

Out of the total 185 participants, the majority i.e. 109(58.92%) were aged between 20-21 years, 98(52.973%) were in 3rd year (under graduate), 159(85.95%) were perusing Arts, 147(79.46%) were from Urban area, 159(85.94%) had no previous knowledge about prevention of cervical

cancer and 172(92.97%) had no relatives previously diagnosed with cervical cancer. [Table 1]

Table 1: Socio-Demographic characteristics of study participants (n=185)

DEMOGRAPHIC VARIABLE	FREQUENCY	PERCENTAGE
Age		
18-19	69	37.3%
20-21	109	58.92%
22-23	7	3.78%
Educational Qualification		
1st Year	5	2.703%
2nd Year	80	43.243%
3rd Year	98	52.973%
4th Year	2	1.081%
Course of Study		
Arts	159	85.95%
Commerce	17	9.19%
Others: Management	9	4.86%
Place of Residence		
Urban	147	79.46%
Rural	38	20.54%
Previous Knowledge & Source		
Yes Family Social Media	26 (13) (13)	14.06%
No	159	85.94%
Relatives previously diagnosed with cervical cancer		
Yes	13	7.03%
No	172	92.97%

Figure 1: Comparison between pre-test & post-test knowledge regarding cervical cancer

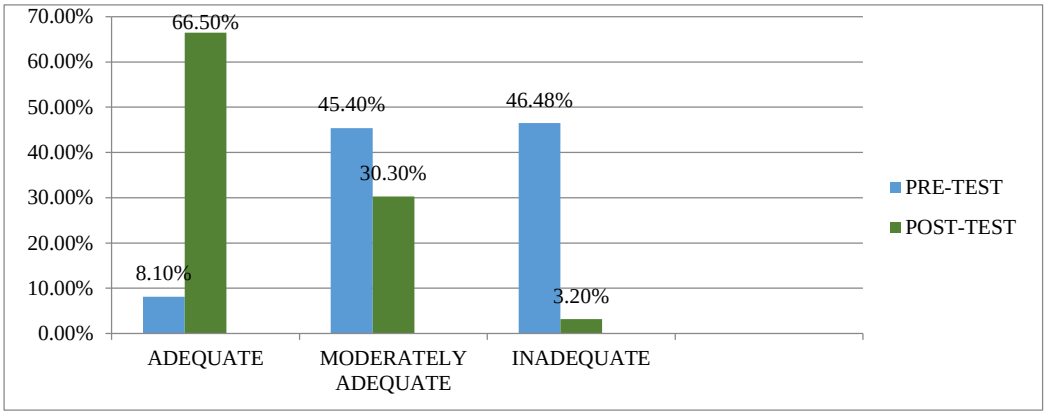

Figure 1: During the pre-test, 86(46.48%) had inadequate knowledge, 84(45.4%) had moderately adequate knowledge and 15(8.1%) had adequate knowledge while in the post-test, 123(66.5%) had adequate knowledge, 56(30.3%) had moderately adequate knowledge and 6(3.2%) had inadequate knowledge.

Figure 2: Comparison between pre-test & post-test attitude regarding cervical cancer

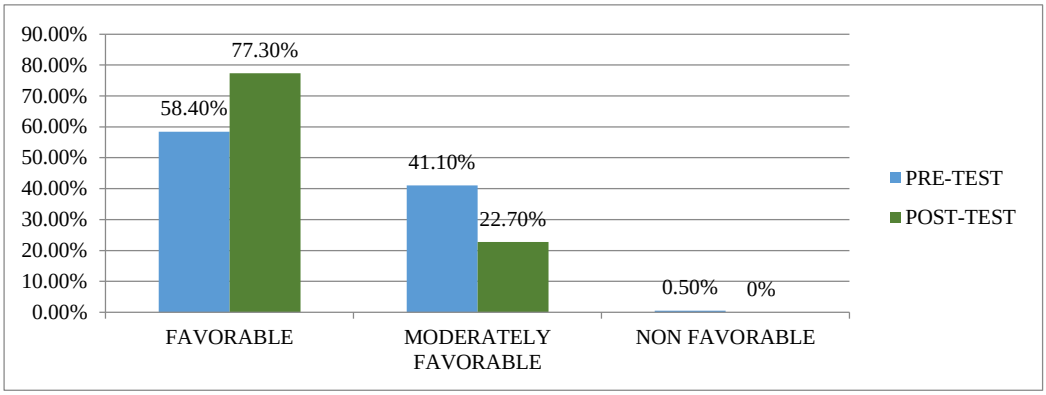

Figure 2: In the pre-test, 108(58.4%) had favorable attitude, 76(41.1%) had moderately favorable attitude and 1(0.5%) had non-favorable attitude while in the post-test, 143(77.3%) had favorable attitude, 42(22.7%) had moderately favorable attitude and 0(0%) had non-favorable attitude.

Table 2: Mean and standard deviation of pre-test and post-test level of knowledge & attitude with t-test p value (n=185)

	Mean	Std. Deviation	Std. Error Mean	t	df
Pre knowledge & Post knowledge	3.16	2.27	0.166	19.03	184
Pre Attitude & Post Attitude	1.45	2.71	0.199	7.28	184

Table-2 shows the mean difference between pre-test and post-test as 3.16 and 1.45 for knowledge and attitude respectively. This indicates that the level of knowledge and attitude increased during post-test. Thus, it can be said that the interventional module was effective in enhancing the knowledge & attitude of the female college students regarding prevention of cervical cancer.

In the study a statistically significant association was found between pre-test level of knowledge with the demographic variables like age, education and place of residence [Table 3]

Table 3: Association of pre-test level of knowledge with selected demographic variables (n=185)

Demographic variable	Level of knowledge			p value	df	Level of significance	Inferences
	Adequate	Moderate	Inadequate				
Age				30.965	4	<0.05	Significant
18-19	5	38	27				
20-21	10	43	55				
22-23	0	3	4				
Education				47.963	6	<0.05	Significant
1st Year	0	1	4				
2nd Year	8	42	30				
3rd Year	7	44	47				
4th Year	0	0	2				
Place of residence				7.486	2	<0.05	Significant
Urban	2	19	20				
Rural	13	65	66				
Previous Knowledge & Source				3.139	2	>0.05	Not significant
Yes	3	13	10				

No	12	71	76				
Relatives previously diagnosed with cervical cancer				5.778	2	>0.05	Not significant
Yes	0	6	7				
No	15	78	79				

DISCUSSION

The study findings revealed that out of 185 female college students, 109(58.91%) belonged to the age group of 20- 21 years, 98(52.97%) were in their 3rd year (under graduate), 159(85.95%) were perusing Arts, 147(79.46%) were from Urban area and 172(92.97%) had no relatives previously diagnosed with cervical cancer. 159(85.94%) had no previous knowledge about prevention of cervical cancer. This finding was contrary with the study findings by Mengesha A, Messele A, Beletew B where (65.1%) of the participants claim hearing of cervical cancer.[4]

In regard to knowledge of the participants, in the pre-test, 15(8.1%) had adequate knowledge, 84(45.4%) moderately adequate knowledge and 86(46.48%) had inadequate knowledge while the post-test revealed 123(66.5%) had adequate knowledge, 56(30.3%) moderately inadequate knowledge and 6(3.2%) had inadequate knowledge. The study findings was found to be consistent with a study done by Anu V Kumar in Madhya Pradesh, India where a study was done among 300 women to assess the effect of video- assisted teaching on knowledge regarding early detection and prevention of cervical cancer among women where in the pre-test, 120(40%) had poor knowledge, 30(10%) fair knowledge and 120(40%) had good knowledge while in the posttest, 50(16.7%) had fair knowledge, 70(23.3%) had good knowledge and 180(60%) had excellent knowledge.[5]

In our study, pre-test attitude findings showed 108(58.4%) had favorable attitude, 76(41.1%) had moderately favorable attitude and 1(0.5%) had non-favorable attitude while the post-test presented 143(77.3%) had favorable attitude, 42(22.7%) had moderately favorable attitude and none had non-favorable attitude. This finding is almost consistent with the study conducted by Shrestha, Smita and Prativa Dhakal where 100% of the participants had favorable attitude.[6]

The study findings in our current study showed the mean difference between pre-test and post-test knowledge was 3.16(SD 2.27) and attitude was 1.45(SD 2.71) which showed that the intervention used was effective in enhancing the knowledge and attitude of the female college students regarding prevention of cervical cancer. The findings are similar with the study conducted by Karthi R et al. to assess the effectiveness of Self Instructional Module (SIM) on knowledge regarding prevention of cervical cancer among 50 women at selected village, Tamil Nadu India, where the result showed a pre-test mean 9.28 with SD 2.23 and post-test mean 21.62 with SD of 2.3 with the mean difference of 12.34 which was found to be highly significant.[7]

In the present study, a significant association was found between knowledge with age, educational qualification and place of residence at p value less than 0.05. The findings are similar with the study conducted by Kwarase, R et al. to assess cervical cancer: knowledge, attitude and practice of screening among 203 women in bongo district of the upper East region of Ghana where a significant association was found between knowledge with age (P=0.027) and level of education (P<0.001).[8]

CONCLUSION

The aim of the current study was to assess the effectiveness of interventional module on knowledge and attitude regarding prevention of cervical cancer. From this study, we found out that the mean difference between pre-test and post-test knowledge was 3.16 (SD 2.27) and attitude was 1.45 (SD 2.71) which shows that the interventional module was effective in enhancing the knowledge and attitude of the

female college students regarding prevention of cervical cancer.

Declaration by Authors

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