EFFECT OF TRAINING ON COGNITIVE AND AFFECTIVE DOMAIN PERTAINING TO CERVICAL CANCER AMONG RURAL WOMEN

Nursing

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ABSTRACT

Cervical cancer remains an important health problem worldwide and more in developing nations. It is the fifth most common cause of cancer death in the world and the second largest cause of cancer mortality in India. Cervical epithelial cell abnormalies in the Papanicolaou smear represent a spectrum of cellular abnormalies that lie along the pathway, from in-situ lesions to invasive cancer. Currently India accounts for 1/4thof the global cervical cancer burden. Though the incidence of cervical cancer has declined in developed countries, but in developing countries like India where women do not undergo routine cervical cancer screening it is still a major health problem among women population.

Purpose: This study was designed to assess the status of women knowledge, common behaviours and attitudes pertaining to cervical cancer and its preventive aspect, symptoms, and the importance of PAP (Papanicolaou) smear test for screening. A pilot study was conducted among 170 women aged 25to 60 years. The data was collected using a valid knowledge and attitude questionnaire.

Findings: This study has shown that women in our region lack knowledge of cervical cancer and its prevention. Majority of the study population (98.5%) had poor knowledge regarding cervical cancer screening. There was no apparent difference in the mean and standard deviation of knowledge scores in the different categories of cervical cancer, symptoms and papanicolaou smear test. There is very poor knowledge of cervical cancer screening among women. Effective female education and mass screening are necessary for successful implementation of cervical cancer screening program in India especially within the rural sector inhabitants.

KEYWORDS

Papanicalaou, Cervical Cancer , Structured Education

INTRODUCTION

Cervical cancer is the most common cancer among Indian women, with an estimated 1.32 -1.34 lakh new cases and 70,000 -74,000 deaths annually.In 2012,528,000 cases of cervical cancer were estimated to have occurred with 266,000 deaths .It is the second- most common cause of female specific cancer after breast cancer, accounting for about 8 % of both total cancer cases and total cancer death in women[1]This deadly cancer is not a hereditary. It is caused by a virus, the human papillomavirus (HPV), which is transmitted sexually or because of poor hygiene practices among women.[2] In men, the manifestation of HPV related cancers is different than women. About 90% of anal cancers, 40-50% of penile cancers and 20 % of head and neck cancer are estimated to be due to HPV in men whereas among women, HPV is estimated to be responsible for 82.5% of cervical cancers. This statistics is particularly relevant to India, since cancer of the cervix is the most frequent cancer among Indian women.[3]

Developed countries like US have reduced the mortality due to cervical cancer; only about 30 % women die due to cervical cancer. This reduction was made possible due to wide spread use of the papanicalaou (Pap) test, a cervical cancer screening tool.[4]

It is usually advised that each woman should get a PAP test done every three years after becoming sexually active. Moreover, it is an uphill task to undertake systematic screening for a large number of population because of large infrastructure and lack of trained manpower in India. The alternative and additional strategy is introduction of the HPV vaccine in immunization schedule at puberty. The available vaccine provides immunity against two common strains of virus, HPV 16 and HPV 18, and protects both men and women from the HPV infection and the risk of cancer. Together these two strains are responsible for over 80% of the cervical cancers in India.[5]

Awareness of cervix cancer, and its causes encourages screening program and this in term can help in reduction of morbidity and mortality among women due to cervical cancer.[6] This cancer progresses gradually. These changes range from mild dysplasia or cervical intraepithelial neoplasia (CIN1), to moderate (CIN2), to high-grade lesions (CIN3). They can resemble cancer cells without invasion, also known as carcinoma in situ. All these stages can be detected via PAP smear screening.[7]

Other strategies which might help in reducing risk of cervical cancer include male circumcision, use of condoms, and abstinence from sexual intercourse during menses time, and celibate status.[8]In this context,the three aspects viz.(i)occurrence of cervical cancer in a comparatively early age with high magnitude,(ii)possibility of early detection and haltering, and (iii) reluctance of women to volunteer for examination due to lack of knowledge,need thorough study. Therefore this study was planned and conducted. The study had following objectives;

1. To compare the scores of women's knowledge and attitudes in relation to selected aspects of cervical cancer before and after administering the teaching programme.
2. To find the association between pre-test and post-test difference of knowledge scores of women with their demographic variables.

MATERIALS AND METHODS

Study type
It was an interventional study comparing effect of training imparted to women from rural areas.

Variables
Planned teaching programme on knowledge and attitudes in relation to prevention of cervical cancer and importance of screening was the independent variable. Score obtained in knowledge and attitudes of women related to prevention of cervical cancer and the importance of screening, was the dependent variable.

Inclusion criteria
1. Women in the age group of 25 to 60 years
2. Women who resided in the selected area for more than six months.

Exclusion Criteria
1 Diagnosed patients of cancer of cervix
2 Women having any other critical illness e.g. advanced stage of diabetes, hypertension etc.

Study Area
The field practice area under Rural Training Centre ,Grant Medical Collage, Mumbai,Maharashtra,India, in newly formed District Palghar was selected for undertaking the study. The Population of District Palghar is 68.93 lakh as per census of 2011. It consists of eight

blocks. The study was conducted in three blocks. One village in each selected block was included in the study. The villages included were Khanivli, Wada, Jambhulvihirgaon from three blocks namely Dahanu, Wada and Palghar respectively.

Study population
The total population of these three villages was 16809. Women members of Mahila Mandal and in the age group of 25-60 years were the participant subjects from these rural communities. As per the availability 170 women were selected as participants in the study.

Study period
The study was conducted from 1st February 2015 to 30th April 2015.

Study tool
A semi structured questionnaire was prepared for collecting the data. The salient features of questionnaire was explained to those women who were unable to read and write. Appropriate assistance was extended to them in fulfilling the questionnaire. It had two sections. Section one consist of 20 items about knowledge related to preventive aspect of cervical cancer and ,Section two consisted 30 items to evaluate the attitudes of women in relation to the problem statement. A five point Likerts scale was used to assess the attitudes of women in relation to cancer of cervix and their views about importance of screening.

Validity of the tool
The questionnaire and details of the planned teaching program was submitted to twelve experts from the respective fields along with the blue print and objectives of the study to establish the content validity of the tool. The modifications suggested by the experts were incorporated in the finalized tool.

Reliability of the questionnaire
The reliability of the tool was done through the test retest method. Then Kuder-Richardson coefficient of reliability was calculated. For Section 1 (Knowledge) the computed KR20 coefficient was 0.56. For Section 2, (Attitudes) the computed KR20 coefficient was 0.66.

Ethical clearance
Permission from ethical committee permission MGM University was sought before commencement of data collection.

Data collection
Public Health Nurse from J JGroup of Hospitals, Mumbai ,India was approached for arranging the inter-active session with the women for data collection. She has resources like phone numbers and addresses of key persons from this area as this part is taken foe field practice. The key personnel were contacted on phone . Through them Mahila Mandals and Women Social Workers were contacted. A good rapport with the women population was developed. Further the key persons were requested to assist in arranging the sessions. The inter-active sessions for data collection were conducted at Community Hall, Temple and Primary School in the morning hours as the venues and timings were convenient to the subjects to attend.

The interaction session was held for a period of three days. On day one, initial introduction was given to participants followed by an overview of the project explaining the purpose and few details of the study by the investigator for about 30-40 minutes. Subjects were appealed to communicate their willingness to participate in the study. Further informed consent was obtained . On day two, pretest was conducted by distributing the questionnaire explaining the proforma to woman, and asked to fill it then and there. Extended help was given to those who were not able to fill the questionnaire. After pretest, planned teaching program was conducted for duration about one hour on the same day. On day three, similar questionnaire was re-administrating as post-test. The data collection process was terminated after thanking the participants for their participation and co-operation.

Data compilation and analysis
The collected data was entered in Excel sheet and was analyzed and presented as descriptive statistic of frequency and percentage and inferential statistics like mean, standard deviation. Appropriate tests like Non-Parametric Tests - Kruskal-Wallis Test, Mann-Whitney Test for association and paired 't' test for difference were used. The

conventional level of significance was set at 0.05.

RESULTS
The age group distribution and education level of the women participants is given in table 1 and 2 respectively.

Table no.1: Age group of participant women, Palghar district, 2015

S.No.	Age group	Frequency	Percentage
1	25-30 years	45	26.47
2	31-40 years	53	31.17
3	41-50 years	40	23.52
4	51-60 years	32	18.82
	Total	170	100.00

Table no.2: Educational level of participant women, Palghar district, 2015

S.No.	Level of education	Frequency	Percentage
1	No formal education	67	39.41
2	Primary education	42	24.70
3	Secondary education	56	32.94
4	Graduate and above	5	2.94
	Total	170	100.00

Majority of women were from Hindu religion comprising total of 128 women for the study whereas 42 women were from Muslim religion. The scores obtained in knowledge and attitudes are illustrated in table 3. There were significant differences in pre-test and post test scores. The difference between the scores of pre and post test among the knowledge and attitudes of participants was tested using Non parametric Wilcoxon Signed Ranks test.The knowledge score of the women in pre-test was only 0.2% which showed a rise in post-test of 28.30 %. The pre-test score of attitudes among the women was only 0.12% which showed a significant rise to 16.50% in post-test after implementing the planned teaching. It was found that there was no association between pre and post-test knowledge and attitudes scores of women in relation to prevention of cancer of cervix along with the demographic variables. Participants indicated the belief that an absence of symptoms meant there was no need for a screening and they feared about the results of the tests too.

Table no.3: Knowledge and attitudes scores of women, Palghar district, 2015

No.of participants	Pretest scores of women		Post test scores of women		Difference in scores of women	
	Knowledge	Attitudes	Knowledge	Attitudes	Knowledge	Attitudes
Total 170	0.2	0.12	28.30	16.50	26.2	16.20

p>0.05

Association with change in scores of knowledge and attitudes of women along with age group structure among the participants was tested by applying Non parametric Kruskal-Wallis test. The observations are given in table 4. Similarly the association between change in scores of knowledge and attitudes along with educational level was tested using Kruskal-Wallis test. The results are given in table no 5.

Table no.4:Magnitude of change in knowledge and attitudes of women with respect to Socio-Demographic variable of age group aspect

	Age	N	Mean Rank	p
Difference in knowledge	25-30	45	86.80	0.214
	31-40	53	75.10	
	41-50	40	96.61	
	51-60	32	87.00	
	Total	170		
Difference in attitudes	25-30	45	80.53	0.347
	31-40	53	80.88	
	41-50	40	86.59	
	51-60	32	98.78	
	Total	170		

p>0.05

Table no 5: Magnitude of change in knowledge and attitudes of women with respect to Socio-Demographic variable of level of education aspect

	Education	N	Mean Rank	p
Difference in knowledge	No formal Education	67	82.15	0.354
	Primary Education	42	82.01	
	Secondary Education	56	89.06	
	Graduate and Above	5	119.80	
	Total	170		
Difference in attitudes	No formal Education	67	95.51	0.103
	Primary Education	42	78.02	
	Secondary Education	56	81.98	
	Graduate and Above	5	53.60	
	Total	170		

Association with change in knowledge and attitudes scores of women along with religion among the participants was tested by applying non parametric Mann-Whitney test. The observations are illustrated in table no 6.

Table no.6: Magnitude of change in knowledge and attitudes of women with respect to religion of the participants

	Religion	N	Mean Rank	P
Difference in knowledge	Hindu	128	82.95	0.236
	Muslim	42	93.29	
	Total	170		
Difference in attitudes	Hindu	128	87.07	0.467
	Muslim	42	80.73	
	Total	170		

$p > 0.05$

DISCUSSION

As recently as the 1940s, invasive cervical cancer was a major cause of death among women of childbearing years in the United States. However, with the introduction of the Papanicolaou (PAP) smear in the 1950s; a simple test that uses exfoliated cells to detect cervical cancer and its precursors is beneficial to detect invasive cervical cancer and premalignant lesions at the earliest.

The Pap test allows for the early detection of cervical cancer and that leads to successful treatment and fewer deaths. This test can be done during a routine pelvic exam where cells are collected from the cervix and examined under a microscope. But the uptake in India is different. This is probably because of lack of awareness to encourage women to take the test. "In India that kind of screening is just not feasible,"[8]says an expert.

Virtually all cases of cervical cancer are caused by specific types of Human papillomavirus(HPV), of which more than 40 can be sexually transmitted. Among these, about 15 are considered to be cancer-causing or high-risk types. Two of these high-risk types, HPV-16 and HPV-18, cause about 70% of cervical cancers worldwide. Persistent HPV infections can however, cause cellular abnormalities that develop into advanced stage cervical cancer if not treated within time.

Its the commonest cause of death among women in developing countries[9]and the second most common cancer among women aged 15–44 years.[9]The reason for high incidence of cervical cancer is that many important ones being that cancer does not cause any symptoms in early stages. So by the time symptom develops, the cancer is already in advance stage. Our women traditionally approach the doctor only when they have some problem, hence they seek help late.[15]In India, especially women from rural areas are very reluctant to get checked and they visit doctor only when symptoms arise. By this time not much can be offered to them. Things can change dramatically and positively if these women are screened early and regularly to detect the cancer in its very early stage in which it remains for 15-20 long years by offering simple treatment at minimum cost which in turn can completely cure these women of their precancerous state and increase the lifespan.[10]

Mortality due to cervical cancer is also an indicator of health inequities,[10]as 86% of all deaths[11]due to cervical cancer are in developing, low- and middle-income countries.[12]Every year in India, 122,844 women are diagnosed with cervical cancer and 67,477 die from the disease.[13]India has a population of 432.2 million women aged

15 years and older who are at risk of developing cancer.[13]India also has the highest age standardized incidence of cervical cancer in South Asia at 22, compared to 19.2 in Bangladesh, in Sri Lanka, and 2.8 in Iran.[13]Therefore, it is vital to understand the epidemiology of cervical cancer in India. It is well-known that, older and poor women who are at the highest risk of developing cancer are least likely to undergo screening. Opportunistic screening in various regions of India varied from 6.9% in Kerala[14] to 0.006% and 0.002% in the western state of Maharashtra and southern state of Tamil Nadu, respectively.[15,16]InMaharashtra, high-risk HPV was associated with increasing age, low education level, manual work, early age at first sexual intercourse, and widowhood/separation.[17]

Researcher selected the setting for the following reasons; Familiarity with the setting, Easy availability of the group of women and Economic feasibility of conducting the study. The women who bear high risk were included in the study. Study was feasible and acceptable, both in terms of participation rate and the experiences of women. The findings of the study showed that the women have little knowledge regarding cervical cancer and its secondary prevention and screening measures .After implementing structured teaching program, there was a highly significant increase in the knowledge of the subjects in all areas of prevention of cervical cancer.

The paired't' test computed between mean pretest knowledge and attitudes scores and mean posttest knowledge and attitudes scores, which indicated a highly significant difference in the scores. Thus it is concluded that the planned teaching program on knowledge about cancer of cervix and secondary prevention was effective to create awareness among the rural women population and make a change in their attitudes which shall provide with a positive and productive outcome.

No statistically significance difference was observed in scores in relation to age, education and religion. The improvement in knowledge and attitude was not associated with age group, education and also religion of the respective women.

A study conducted by an expert says that each woman should get a PAP test done every three years after becoming sexually active, but the infrastructure in India makes systematic screening for a large section of the population impossible. Thus, creating awareness among the women of its prevention, its causes and screening program can help in reduction of morbidity and mortality among women which in turn can help to reduce disease burden on health care services.[3]

CONCLUSION

The study shall serve to evolve pertinent messages in health education about a very important social cause of cervical cancer which affects a large number of women in Indian population which seems to be continually on a rise. It can be prevented through rendering early awareness, disseminating knowledge, careful planning and implementation of teaching and screening schedule on a periodic basis among the women masses especially who are residing in a rural areas, which in turn can help in early identification of premalignant cases and to provide immediate referral and follow up services through proper periodic guidance and counselling.

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