

## A Quasi Experimental Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge regarding Cervical Cancer among Women in Selected Villages of Mohali

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### Abstract

Cervical cancer is one of the most common gynecologic cancers in women. Women have lack of awareness about cervical cancer that increased the prevalence of the disease. Cervical cancer screening using Pap smear provides an appropriate way for early detection and prevention of cervical cancer. This study was carried out to evaluate the effectiveness of planned teaching programme through a structured knowledge questionnaire. A quantitative research approach and quasi experimental pre test post test research design was adopted to conduct study. Structured knowledge questionnaire with interview schedule was used to assess the knowledge of women regarding cervical cancer. Pre test was taken on first day followed by planned teaching programme to experimental group on the same day and then post test was taken after seven days. In experimental group majority women (74%) had average level of knowledge in pre test but in post test majority women (60%) had good level of knowledge. There was significant difference between the mean post test knowledge score of experimental and control group ( $t = 10.194$ ,  $p = 0.0001$ ) at  $p < 0.05$  level. There were significant association of the selected socio demographic variables religion and family income per month over the scores of the post test in experimental group. Planned teaching programme was highly effective in enhancing the knowledge of women regarding cervical cancer.

**Keywords:** Cervical cancer, women, planned teaching programme, effectiveness, selected villages

### Introduction

The myth that cancer affects people mostly in the developed countries is being broken by the fact that more new cancer cases have been seen each year worldwide. Its rates are higher in low & middle income countries and in low socio-economic groups within countries. Women who are dying seemed to be getting younger with the youngest

between the age group 20 to 24 years. Cancer formed in tissues of the cervix is called cervical cancer.<sup>1</sup> Cervical cancer is usually a slow-growing cancer that may not have symptoms but can be found with regular Pap tests.<sup>1</sup> Cervical cancer is almost always caused by human papilloma virus (HPV) infection.<sup>2</sup> According to World health organization cervical cancer is one of

the most common cancers among worldwide. Cervical cancer was the 5<sup>th</sup> most common cause of cancer death among women of world and incidence rate of 16 per 100,000 women.<sup>1</sup> India contributes to about 1/4<sup>th</sup> of the world's registered cervical cancer cases by having 1,32082 newly diagnosed cases per year and 74,118 deaths because of the same.<sup>3</sup> In India, the peak age for cervical cancer incidence is 45-54 years.<sup>4</sup> Cervical cancer usually starts in the cells on the surface of the cervix, involving columnar or squamous cells. The burden of disease due to transmissible diseases such as HIV and Human Papilloma Virus (HPV) is increasing especially in developing Countries. The Human Papillomavirus (HPV) has emerged as the principal sexually transmitted causal agent in the development of cervical cancer.<sup>5</sup> Although there are several strains of HPV infection, most of which have been found to increase the risk of developing cervical cancer. Two strains HPV 16 and 18 account for more than 70% of all cervical cancer cases and five other strains that is HPV 31, 33, 35, 45, 52 account for an additional 20% of cases cervical cancer. The disease is usually asymptomatic in the early stages. As disease progresses the common symptoms for cancer of the cervix include intermenstrual bleeding, post-coital per vaginal bleeding and abnormal per vaginal discharge which tends to be foul-smelling. Lower abdominal pain and backache are symptoms of advanced disease.<sup>5</sup> Pap smear screening is advised for women who are sexually active and annual screening from the age 18-35years is advised. The first and second stage of cervical cancer is completely operable and treatable. Patients are operated through keyhole surgeries. Patients can return to their normal life quite soon.<sup>7</sup> Palliative care services are very poorly developed and therefore these unfortunate women are sentenced to a miserable end of life, with the cancer penetrating deep into

the tissues of the pelvis resulting in pain, bleeding, fistula formation, bowel and ureteric obstruction.<sup>2</sup> Cervical cancer is preventable and curable if detected at an early stage.<sup>6</sup> A vaccine available for cervical cancer, there is further hope. "Now that it has been introduced in India, cervical cancer can be avoided. The vaccine can be given to any girl in the age group of 13-26 years-before she starts sexual contact. The efficacy is more than 90%,".<sup>3</sup> A comprehensive cervical cancer control by WHO states that health education and promotion should be an integral part of any national cervical cancer control programme. It should incorporate an awareness component, informing women and their families. It should also include aspects of behavior modification, informing the population about the sexual and behavioral risk factors of cervical cancer, the use of condoms, avoiding multiple sexual partners, delaying first sexual intercourse, reducing parity and reducing tobacco use. Lastly counseling should be incorporated in all cervical cancer prevention programmes. Therefore the study aims to assess the effectiveness of planned teaching programme in terms of gain in knowledge in experimental group regarding cervical cancer.

### **Objectives**

1. To pre test the knowledge regarding cervical cancer among women in selected villages of Mohali.
2. To administer planned teaching programme on cervical cancer to experimental group.
3. To post test the knowledge regarding cervical cancer among women in selected villages of Mohali.
4. To compare the pre test and post test knowledge regarding cervical cancer among women in selected villages of Mohali.
5. To associate the findings with selected socio demographic variables.

## Materials and Methods

A quantitative research approach and quasi experimental pre test post test research design was adopted to conduct study. Convenient sampling technique was used to select 100 women - 50 in experimental and 50 in control group and women were within the age 18 – 60 years from selected villages of Mohali. Structured knowledge questionnaire with interview schedule was used to assess the knowledge of women regarding cervical cancer. Level of knowledge was graded into Poor, Average, Good and Excellent. Pre test was taken on first day followed by planned teaching programme to experimental group on the same day and then post test was taken after seven days of teaching from both the groups. To collect socio demographic information there were 13 variables such as age, religion, educational status, occupation, marital status, addiction, marriage age, number of children, attainment of menopause, source of information, complaint of ill health and family history of cancer were used. To assess knowledge of women 20 items in structured knowledge questionnaire were used.

## Results

The data findings have been organized and presented under the following sections:

**Section I:** Description of socio demographic variables, **Section II:** Description of evaluation of the effectiveness of planned teaching programme in terms of knowledge of women, **Section III:** Description of the association of knowledge of women with selected socio demographic variables.

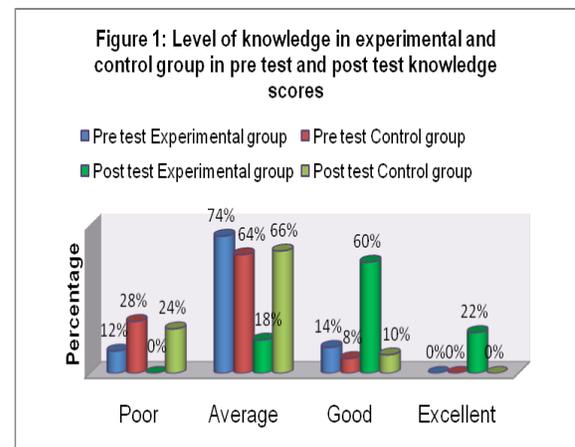
### Section I: Description of socio demographic variables

In experimental and control group maximum women were in the age group less than 30 years. Majority of women in both the groups were from Sikh religion. Maximum women in both experimental and control group had

studied till Matric class and were married in the age group of 19 – 24 years. Majority of the women in both experimental and control group were doing no paid work. Majority of the women were having family income less than equal to 10,000. Majority of the women were relying on mass media in terms of source of information in both the groups. Majority of women in experimental and control group respectively reported that they had no family history of cancer.

### Section II: Description of evaluation of the effectiveness of planned teaching programme in terms of knowledge of women

In experimental group majority women (74%) had average level of knowledge in pre test but in post test majority women (60%) had good level of knowledge (fig. 1).



In experimental group, the mean pre test knowledge score was 8.24 and mean post test knowledge score was 13.18. The difference between mean pre test and post test knowledge score of experimental group was statistically significant at  $p < 0.05$  level by paired 't' test (table 1). Effectiveness of planned teaching programme on cervical cancer among mothers was evaluated between experimental and control group with post test mean score by using student t test, shows that ( $t = 10.194$ ,  $p = 0.0001$ ) there was a significance at  $p < 0.05$  level.

Hence, the research hypotheses (H) is accepted.

impacting the posts test scores in control group.

**Section III: Description of the association of knowledge of women with selected socio demographic variables**

There were significant association of the selected socio demographic variable religion and family income per month over the scores of the post test in experimental group at  $p < 0.05$ . However, the pre tests scores were significantly impacting the posts test scores in experimental group (table 2). In control group, association of selected socio demographic variable was not statistically significant with post tests scores. However, the pre tests scores were significantly

**Discussion**

Cervical cancer kills a disproportionate number of women in developing countries, despite the fact that evidence-based secondary prevention methods exist. There is lack of awareness among women on cervical cancer, its early detection, prevention and treatment.<sup>3</sup> Much progress needs to be made in the prevention and control of cervical cancer. It was found that majority of women in both experimental and control group in the age group less than 30 years.

**Table 1: Paired T – Test Analysis of the Pre Test Knowledge Scores of women in Experimental Group and Control Group (N = 100).**

Group		Mean	n	SD	T - test
Experimental group	Pre test score	8.24	50	2.487	12.80** P = 0.0001
	Post test score	13.18	50	3.062	
Control group	Pre test score	7.02	50	2.462	1.644 P = 0.107 NS
	Post test score	7.38	50	2.610	

Significant, NS Non significant

**Table 2: ANCOVA analysis of the post test scores with pre test scores as covariate in references to all demographic variables among experimental group (N = 50).**

Dependent Variable: Post Score			
Source	d <sub>f</sub>	F	Sig.
Pre test	1	5.706	.027*
Age	1	.727	.404
Religion	1	4.415	.049*
Educational status	5	1.665	.189
Occupation	2	2.001	.161
Family income per month( in rupees)	1	4.423	.048*
Marital Status	1	1.757	.200
Addiction	0	---	---
Marriage age	1	.000	.998
Number of children	1	.071	.793
Attainment of menopause	1	.069	.796
Source of information	3	2.267	.112
Complaint of ill health	1	.050	.825
Family history of cancer	1	.170	.685

\*significant

Maximum women had studied till Matric class and 82% were married. In the present study, it was found that 74% women in experimental and 64% women in control group had in average level of knowledge in pre test while in post test majority of women attained good level of knowledge in experimental group. Similar finding have been reported in another study in which 65% women had average level of knowledge.<sup>7</sup> In present study, mean post test knowledge score of experimental group was higher than mean post test knowledge score of control group. Similar findings have been reported in Eleazar, Christina<sup>8</sup> study. The present study used a planned teaching programme to enhance the knowledge regarding cervical cancer. John concluded that both self instructional modules and pamphlet can be used in giving knowledge regarding cervical cancer.<sup>7</sup> It was also found that there was statistically significant association between selected socio demographic variable like religion and family income per month and knowledge score. Similar to the present study findings, Kaur S also found significant association with family income.<sup>9</sup> On the other hand Ndlovu BH found that family income was not significantly associated with level of knowledge.<sup>10</sup> It had been reported in other studies also that there were no significant association between knowledge scores and selected variables like age, educational status, marital status and source of information.<sup>8, 10</sup>

The planned teaching programme was found effective in increasing the knowledge of women in experimental group regarding cervical cancer. Cervical cancer control programme should incorporate an awareness component, informing women and their families. It should also include aspects of behavior modification, informing the population about the sexual and behavioral risk factors of cervical cancer, the use of condoms, avoiding multiple sexual partners, delaying first sexual intercourse, reducing parity and reducing tobacco use. Lastly

counseling should be incorporated in all cervical cancer prevention programmes.<sup>6</sup>

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### **Ethical consideration**

Ethical approval to conduct the study was obtained from institutional ethical committee of Mata Sahib Kaur College of Nursing, Mohali. Written informed consent was taken from the subjects regarding their willingness to participate in research project.

**Conflict of interest:** There is no conflict of interest.

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### **References**

1. National cancer institute. Surveillance Epidemiology and end results, <http://www.cancer.gov/cancertopics/types/cervical> reviewed on 13/2/2012.
2. Polaski LA, Tatro ES. Luckmann's. Core Principles and Practice of Medical-Surgical Nursing. 1<sup>st</sup> ed. New Delhi: Elsevier, 2010.
3. Satija A. Cervical cancer in India. [http://sancd.org/uploads/pdf/cervical\\_cancer](http://sancd.org/uploads/pdf/cervical_cancer) reviewed on 13/2/2012.
4. Tharu R. cancer of the cervix and its prevention: still a public health issue, <http://www.medindia.net/patients> reviewed on 7/2/2012.
5. Black MJ, Hokanson J. Medical-Surgical Nursing. 7<sup>th</sup> ed. Elsevier, 2010.
6. Imelda N. Cancer of the cervix and its prevention: still a public health concern. <http://www.case.edu/med/Epidbio/Mph>

- 439/Cervical\_Cancer.htm reviewed on 28/11/2012.
7. John. Effectiveness of two self-instructional modules on knowledge of women regarding cervical cancer. *Cancer Journal* Oct 2004;5(27):364-369.
  8. Eleazar, Christina. Effectiveness of planned teaching programme on prevention and early detection of cervical cancer for school teachers of selected schools in Mangalore, *IJSAR*, 3(3), 2016; 07-12 <http://hdl.handle.net/123456789/1416> reviewed on 25/2/2013.
  9. Kaur S, Kaur S. Awareness of women regarding cervical cancer, *Indian Journal of Health and Family Welfare*, [http://www.indian\\_jour.reviewed](http://www.indian_jour.reviewed) on 9/2/2012.
  10. Ndlovu BH. Awareness, knowledge and experiences of women regarding cervical cancer, *Journal of Health, Population and Family Planning*, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2705002/> reviewed on 15/9/2012.