

# A Pre-Experimental Study to Evaluate the Effectiveness of Structured Teaching Programme On Knowledge Regarding Ca Cervix Among Women Residing at Selected Areas of Rajpura, District Patiala, Punjab

Harshpratap Singh<sup>1</sup>, Janeet Kaur<sup>1</sup>, Kesiyamol P<sup>1</sup>, Narinder Singh<sup>1</sup>, Nidhika<sup>1</sup>, Sukhdeep Kaur<sup>2</sup>, Dr. Davinder Kaur<sup>3</sup>

<sup>1</sup>B.Sc. Nursing 4<sup>th</sup> year students, Gian Sagar College of Nursing, Ramnagar, Rajpura, District Patiala, Punjab.

<sup>2</sup>Associate Professor, Gian Sagar College of Nursing, Ramnagar, Rajpura, District Patiala, Punjab.

<sup>3</sup>Principal cum Professor, Gian Sagar College of Nursing, Ramnagar, Rajpura, District Patiala, Punjab.

**Corresponding Author:** Ms. Sukhdeep Kaur Associate, Professor, Gian Sagar College of Nursing, Ramnagar, Rajpura, District Patiala, Punjab.

**Email:** [Sukhdeep.heer16@gmail.com](mailto:Sukhdeep.heer16@gmail.com)

## Abstract

**Background of the Study-** Cervical cancer (Ca Cervix) is a malignancy that develops in the cervix, the lower part of the uterus. According to the World Health Organization (WHO), cervical cancer is the second most common cancer globally and a leading cause of cancer-related mortality among women, particularly in developing countries. Despite advancements in screening and preventive measures, the burden of this disease remains significant, especially in low-resource settings where awareness and access to healthcare services are limited.

**Materials & Methods:** A pre-experimental study was conducted on 50 women aged 25-65 years from Kalo Majra, Rajpura, selected through non-probability convenience sampling. A self-structured questionnaire assessed baseline knowledge, followed by a structured teaching programme. A post-test was conducted five days later, and data were analyzed using descriptive and inferential statistics.

**Results:** The findings demonstrated a significant improvement in knowledge levels post-intervention.

**Conclusions:** The study concluded that structured teaching effectively enhanced awareness of Ca Cervix. Future research with larger samples and randomized methods can further validate these findings.

**Keywords:** Ca Cervix; Effectiveness; Structured Teaching Programme; Awareness.

SDES- International Journal of Interdisciplinary Research is a journal of Open access. In this journal, we allow all types of articles to be distributed freely and accessible under the terms of the creative common attribution- non-commercial share. This allows the authors, readers and all scholars and general community to understand, use and to develop non-commercially work, as long as appropriate credit is given and the newly developed work are licensed with similar terms.

**How to cite this article:** Singh H, Kaur J, Kesiyamol P, Singh N, Nidhika, Kaur S, Kaur D. A Pre-Experimental Study to Evaluate the Effectiveness of Structured Teaching Programme On Knowledge Regarding Ca Cervix Among Women Residing at Selected Areas of Rajpura, District Patiala, Punjab SDES-IJIR; 2025; 6-2: 1020-1025

**Submitted:** 20-April-2025; **Accepted:** 02-May-2025; **Published:** 08-May-2025

## Introduction

Indian national cancer registered reported cancer is major disease affecting people from all strata all over the world. The common accounted concern among females is the uterine cancer, cervical cancer, and the breast cancer. There is evidence that the number of cancer patients is increasing day by day. The theme of the cervix health awareness month 2024, was “learn, prevent, screen.”<sup>1</sup>

**Hippocrates (460-370 BC)** ; the father of medicine is credited 'cancer' as 'carcinoma'. The word cancer is derived from Greek word 'crab' looked like tumor. Most likely applied to the disease because the finger like spreading projection from a cancer called 'to mind the shape of crab.'<sup>2</sup>

The Ca Cervix cancer is defined as the malignant growth of abnormal cells in the lining of the cervix. The common cervix cancer is squamous cell carcinoma, accounting for 70% of cases. Adenocarcinoma is less common (about 25% of cases) and more difficult to diagnose because it starts higher in the cervix.<sup>3</sup>

Ca Cervix cancer is the cancer that starts in the cells of the cervix. The Ca Cervix is the lower, narrow end of the uterus (womb) that connects the uterus to the vagina (birth canal). Ca Cervix cancer develops slowly over time.<sup>4</sup> Cancer continues to rank among the top gynecologic cancers worldwide. According to current data, it is ranked 14<sup>th</sup> among all cancers and the 4<sup>th</sup> most common cancer among women worldwide.<sup>5</sup> Ca Cervix cancer interventions focuses on primary and secondary prevention.<sup>6</sup>

Primary prevention and screening are the best methods to decrease the burden of Ca Cervix cancer and mortality. In the United States and other developed countries, most screening and diagnostic efforts are directed toward the early identification of high-risk human papillomavirus (HPV) lesions through HPV testing and Papanicolaou (Pap) smears. Although HPV testing is not recommended in women younger than 30 years, low-risk younger women should begin screening with Pap tests at age 21 and continue until age 65, per the United States Preventive Services Task Force (USPSTF) recommendations. Newer recommendations offer 3 to 5 year intervals between screenings based on a patient's prior results and the use of Pap and HPV cotesting.<sup>7</sup>

Epidemiology of the cervix cancer, persistent HPV infection causes more than 99% of all cervical cancers. Every year, there are more than 500,000 new cases of cervical cancer and approximately 250,000 deaths due to cervical cancer worldwide. Eighty percent of cases occur in developing countries. Mortality is higher among women not screened in the past 5 years and those without consistent follow-up after identifying a precancerous cervical lesion. Trends show that women with the highest-mortality risk may be less likely to receive HPV vaccination.<sup>8</sup>

In the early stages of Ca cervix cancer, a person may experience no symptoms at all. As a result, women should have regular cervical smear tests, or Pap tests. The most common symptoms of Ca cervical cancer are bleeding between periods, bleeding after sexual intercourse, pelvic pain, vaginal discharge with strong odor, vaginal discharge tinged with blood, discomfort during sexual intercourse etc. These symptoms can have other causes, including infection.<sup>9</sup>

Most of cervical cancers are caused by HPV. HPV is the common virus that is passed through sexual contact. For most people, the virus never causes problems and usually goes away on its own. However, for some, the virus can cause changes in the cells that may lead to cancer. Cervical cancer begins when healthy cells in the cervix undergo changes in their DNA. This results in too many cells. These cells may form a mass called a tumor. The cells can invade and destroy healthy body tissues. Over time, the cells may break away and spread to other parts of the body.<sup>10</sup>

There are main two types of Ca cervix cancer which are discussed in the upcoming lines. Firstly, squamous cell carcinoma, this type of cervical cancer begins in thin, flat cells called squamous cells. The squamous cells line the outer part of the cervix. Most cervical cancers are squamous cell carcinomas. Second types, Adenocarcinoma, this type of cervical cancer begins in the column - shaped gland cells that line in the cervical canal. Sometimes, both cells are involved in the cervical cancer.<sup>11</sup>

## **Objectives**

1. To assess the pre-test knowledge score of women regarding Ca Cervix.
2. To administer a structured teaching programme to improve knowledge.
3. To evaluate the effectiveness of the teaching intervention by comparing pre-test and post-test scores.

## **Material and method**

**Research Approach:** Quantitative research approach was adopted to evaluate the effectiveness of structured teaching programme by comparing pre-test post-test knowledge among women.

**Research Design:** Pre-Experimental (one group pre-test post-test design) was adopted to accomplish the objectives for the research study.

## **Research Setting**

The research setting is the location where the research is conducted. It could be natural, partially controlled, or highly controlled. The study was conducted in selected areas of Kalo Majra Village Rajpura, District Patiala, Punjab.

**Target Population:** The target population was the women of age (25-65 years) residing in Kalo Majra Village, Rajpura, District Patiala, Punjab.

**Sampling Technique:** Sampling is the process of selecting a representative part of the population. Non-probability convenient sampling technique was used.

**Sample :** Samples are the representative unit of a target population, which is to be worked upon by the researcher during the study. The sample size for the present study were {N=50}.

**Description of tool**

The tool consisted the following sections:

**Section-I Socio-Demographic Data-** This section consisted of questions pertaining to demographic data such as age, sex, level of education, occupation, marital status, previous knowledge about Ca Cervix.

**Section-II Self Structured Knowledge Questionnaire-**This section consisted of questions to assess the knowledge of women regarding Ca Cervix.

The tool consisted 25 items. Each item had 4 options, out of which only one was correct. The maximum score was 25 and minimum score 0. It was further divided as the scores (16-25) indicates good knowledge, (8-15) indicates average knowledge, (0-7) indicates poor knowledge regarding Ca Cervix.

**Validity of tool:** Validity refers to the degree to which an instrument measures what it is supposed to being measured. The Structured knowledge questionnaire to assess the knowledge regarding Ca Cervix among women of age (25-65) years along with objectives was given to 9 experts from the different field of nursing, there were 30 items in the questionnaire related to knowledge. Therefore certain additions, deletions and refinements of the tool was done after the suggestions of experts and 25 items were finalized in the tool.

**Reliability of Tool:** Reliability of an instrument is concerned with how consistently the measurement technique measures the concept of interest. The reliability of the structured knowledge questionnaire was assessed by Test retest Method. The 'r' value of the tool was (0.9) and the tool was found to be reliable.

**Results**

Collected data were organized, tabulated and analysed by using the frequency and percentage distribution to analyze the demographic data. The mean, mean difference, standard deviation was used to assess the level of knowledge of participants regarding prevention of the Ca Cervix.

**Section 1-Socio-demographic profile of the study subjects**

**Table 4.1-** Frequency and percentage distribution of socio-demographic characteristics of the study subjects in the experimental group.

Socio - Demographic variable	Frequency (f)	Percentage (%)
<b>N= 50</b>		
<b>Age</b>		
25-35	11	22%
36-45	14	28%
46-55	19	38%
56-65	6	12%
<b>Education Level of the women</b>		
No formal education	20	40%
Matric	12	24%
Senior secondary	16	32%
Graduate	2	4%
Post graduate or above		
<b>Occupation of the women</b>		
Self employed	13	26%
Homemaker	31	62%
Private Job	5	10%
Government Job	1	2%

<b>Area of residence</b>		
Rural	50	100%
Urban		
<b>Marital status of the women</b>		
Unmarried	7	14%
Married	28	56%
Divorcee	5	10%
Widow	10	20%
<b>Have you heard about Ca Cervix earlier?</b>		
Yes	10	20%
No	40	80%
<b>If yes then source of information</b>		
Mass media		
Relatives	5	10%
Health Personals	2	4%
Neighbour	1	2%
Any other	1	2%
<b>Status of HPV vaccine</b>		
Received		
Not received		
	50	100%

### Section 2- Pre-test and Post-test knowledge score of women Regarding Ca Cervix

Table 2- Frequency and percentage of Pre-test score of knowledge of the study subjects regarding Ca Cervix

#### regarding Ca Cervix

N= 50

Level of Knowledge	Score	Frequency	Percentage
Good	16-25	0	0%
Average	8-15	6	12%
Poor	0-7	44	88%

N= 50

Table 3- Frequency and percentage of Post-test score of knowledge of the study subjects regarding Ca Cervix

Level of Knowledge	Score	Frequency	Percentage
Good	16-25	50	100%
Average	8-15	0	0
Poor	0-7	0	0

### Section 3- Findings related to the effectiveness of structured teaching programme on the level of knowledge regarding Ca Cervix among women.

**Table 4- Comparison of pre-test and post test knowledge score of women regarding Ca Cervix**

Test	Experimental Group (N=50)				
	Mean	Standard Deviation	df	t –test	P-value
Pre test	5.54	1.809	49	48.93	0.000*
Post test	20.92	1.291			

\*Significant ( $p < 0.05$ ) , df = 49

### Discussion

The Mean pre test knowledge scores of women was 5.54. Findings revealed that maximum of the subjects were having poor knowledge scores (88%) about Ca Cervix prior to the structured teaching program. The structured teaching program resulted that (100 %) of the participants have shown improvement in the post test, this determines that the structured teaching program that was conducted in order to teach and improve the awareness status regarding prevention of cervix cancer was beneficial. The mean difference in pre - test and post - test scores of the people knowledge is 15.38. There was a significant increment in post test scores 20.92 and pre test scores 5.54. The variance in post test is 1.666 and in pre test is 3.273. Mean difference is calculated to be 15.38. Degree of freedom is 49. The t stat value -48.93,  $P(T \leq t)$  one tail is 1.72, T critical one tail value 1.67,  $P(T \leq t)$  two tail is 3.44, T critical two tail value is 2.00. The calculated ‘t’ value ( $t=1.724$ ). Therefore, Hypothesis H1 accepted at 0.05 level of significance. Hence it can be interpreted that structured teaching programme was significantly effective among the women regarding the knowledge about Ca Cervix. Hence, Hypotheses H2 accepted at 0.05 level of significance.

### Conclusions

The following conclusion is drawn from the finding of the study. In the present study total 50 subjects participated. This study highlights the effectiveness of planned teaching programme on the knowledge of Ca Cervix among the women. The significant increment in the level of knowledge of the women regarding Ca Cervix after the administration of structured teaching programme was observed.

**Financial support and sponsorship:** Nil

**Conflicts of interests:** There is no conflict of interest

### References

1. Mayo Clinic. Cervical Cancer [Internet]. Mayo Clinic. 2023. Available from: <https://www.mayoclinic.org/diseases-conditions/cervical-cancer/symptoms-causes/syc-20352501>.
2. World Health Organization. Cervical Cancer [Internet]. World Health Organization. 2024. Available from: <https://www.who.int/news-room/fact-sheets/detail/cervical-cancer>.
3. Fowler JR, Jack BW. Cervical Cancer [Internet]. Pub Med. Treasure Island (FL): StatPearls Publishing; 2023. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK431093/>.
4. NCI Dictionary of Cancer Terms [Internet]. National Cancer Institute. Cancer.gov; 2020. Available from: <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/cervical-cancer>.
5. Fowler JR, Jack BW. Cervical Cancer [Internet]. Pub Med. Treasure Island (FL): StatPearls Publishing; 2023. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK431093/>.
6. Fowler JR, Jack BW. Cervical Cancer [Internet]. Pub Med. Treasure Island (FL): StatPearls Publishing; 2023. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK431093/>.
7. National Library of Medicine. Pub Med [Internet]. Pub Med Labs. 2024. Available from: <https://pubmed.ncbi.nlm.nih.gov/>.
8. Massad LS, Einstein M, Myers E, Wheeler CM, Wentzensen N, Solomon D. The impact of human

papillomavirus vaccination on cervical cancer prevention efforts. *Gynecologic Oncology*. 2009 Aug;114(2):360–4.

9. Mayo Clinic. Cervical Cancer [Internet]. Mayo Clinic. 2023. Available from: <https://www.mayoclinic.org/diseases-conditions/cervical-cancer/symptoms-causes/syc-20352501>.
10. Mayo Clinic. Cervical Cancer [Internet]. Mayo Clinic. 2023. Available from: <https://www.mayoclinic.org/diseases-conditions/cervical-cancer/symptoms-causes/syc-20352501>
11. Cancer Research UK. Types and grades | Cervical cancer | Cancer Research UK [Internet]. Cancer Research UK; 2020 [cited 2025 Apr 24]. Available from: <https://www.cancerresearchuk.org/about-cancer/cervical-cancer/stages-types-grades/types-and-grades>.