

# Evaluating the Impact of Structured Educational Interventions on Cervical Cancer Awareness and Prevention: A Pre-Experimental Study Among Rural Women in Gurugram, Haryana, India

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**Abstract:** Cervical cancer is the second most common cancer among Indian women. Prevention and early detection can help reduce the incidence of cervical cancer. Taking care of health needs of the people and preventing diseases is a major concern for health professionals. Planned teaching programme is one of the most effective teaching strategies, which can be used for improving the knowledge of people. **Aim:** The aim of this study was to find out the effectiveness of a planned teaching programme in improving the knowledge of women in prevention and early detection of cervical cancer. **Material and Methods:** Pre experimental design was used to assess the Effectiveness of Planned Teaching Programme (PTP) on knowledge regarding early detection and prevention of cervical cancer. Purposive sampling techniques were used to select 60 women in selected village in Gurugram. Informed written consent was taken from selected women. A structured questionnaire was administered to assess the knowledge on early detection and prevention of cervical cancer. The collected data was analyzed by using descriptive statistics and inferential statistics. Frequency and percentage distribution was used for demographic variables and assessing the knowledge on early detection and prevention of cervical cancer. Chi-square test was used to find out association between knowledge on early detection and prevention of cervical cancer among women and selected demographic variables. **Result:** The finding of the study revealed that pre test knowledge 35% had poor, 60% had average, 5% had good knowledge regarding early detection and prevention of cervical cancer. Post test knowledge 0% had poor, 25% had average, 75% had good knowledge regarding early detection and prevention of cervical cancer. Knowledge was significantly associated with religion 0.02 at significance of  $p < 0.05$  level. No association was found between knowledge and other demographic variables like age, education, occupation, marital status, number of children, health information. **Conclusion:** Planned teaching programme will be effective in improving knowledge regarding early detection and prevention of cervical cancer among women in selected villages in Gurugram.

**Keywords:** Effectiveness; prevention and early detection, cervical cancer; planned teaching program; women

## 1. Introduction

Womanhood is the period in a female's life after she has transitioned through childhood and adolescence, generally at the age of 18 years. Puberty generally begins at about age of 10 years, followed by menarche at age 12 to 13 years. Women play an essential role in maintaining family and community health. Over the past hundred years, despite this changing view of the role of women in the family, and not discounting men's contributions to childcare and household chores, women still maintain the primary responsibility for care of children and household women's health problems, require specific attention specific treatment and action. Some women's health problems will require a bit more effort than others, but virtually all can be eliminated if proper natural health steps are taken to eliminate the causes.

There are two types of cells on the cervix's surface: squamous and columnar. Most cervical cancers are from squamous cells. Cervical cancer usually develops very slowly. It starts as a precancerous condition called dysplasia. Cancer of the cervix is the second most common cancer in women worldwide and is a leading cause of cancer-related death in women in underdeveloped countries. Worldwide, approximately 500,000 cases of cervical cancer are diagnosed every year. Routine screening has decreased

the incidence of invasive cervical cancer in the United States, where approximately 13,000 cases of invasive cervical cancer and 50,000 cases of cervical carcinoma in situ (i.e., localized cancer) are diagnosed yearly. Cervical cancer claims almost half a million women worldwide. In 99.7% of all affected women, it results from a history of persistent infection by a family of more than 100-related viruses called human papillomavirus (HPV). As many as 80% of all sexually-active women have a risk of infection.

Infection with high-risk human papilloma virus (HPV) and its persistence are necessary though not sufficient causes of cervical cancer. HPV is the most common viral infection of the reproductive tract. It is generally acquired by young women after the onset of sexual activity. The majority of HPV infections do not cause symptoms or disease and resolve spontaneously within 2 years. According to a meta-analysis of one million women with normal cytological findings, the adjusted HPV prevalence worldwide was estimated to be 11.7%.

Persistent infection with high-risk HPV genotypes may result in cervical pre-cancer which, if untreated, may progress to cervical cancer. The challenge is to identify the etiologic cofactors responsible for the persistence of HPV infection and its progression to neoplastic changes. There

are more than 150 types of HPV. Amongst these, the International Agency for Research on Cancer (IARC) has defined 12 high-risk HPV types that are associated with cancers in humans (types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59).

Worldwide, the most frequent HPV types are 16 and 18, with HPV 16 being the most common subtype. Globally, 70% of invasive cervical cancers are caused by infection with HPV 16 and 18. 41-67% of high-grade squamous intraepithelial lesions, 16-32% of low-grade squamous intraepithelial lesions and 6-27% of atypical squamous cells of undetermined significance are also estimated to be HPV 16/18 positive. It takes 10 years or longer from the time HPV infection is acquired to its progress to invasive carcinoma. Cervical lesions can occur by confection or subsequent infection with several HPV types.

There is no concrete evidence regarding whether natural infection with HPV induces protection against reinfection. However, there appears to be a reduced risk of reinfection with the same HPV type. The infection does not seem to provide group-specific or general immune protection from reinfection with other HPV types. The prevalence of persistent HPV infection, infection with multiple HPV types and the risk of progression to high-grade cervical intraepithelial neoplasia (CIN) and cervical cancer is higher among HIV-infected women as compared to women without HIV infection.

Prevention also requires that women should be aware of the screening facilities available. In India, screening facilities for detection of cervical cancer are available. The success of any health program to control and prevent cervical cancer will depend, to a great extent, on the level of awareness of the potential beneficiaries about the disease. A study conducted in Rural India states that, despite reporting a family history of cervical cancer by 21 respondents, only 17 (7.1%) had got Pap smear done on them. Most (43.5%) of respondents cited "no reason" for not undertaking a Pap test, while nearly half of never screened respondents believed that they were not vulnerable to the disease. It has been found that 50% of women diagnosed with cervical cancer have never undergone a pap test. Besides, lack of knowledge about the disease and familiarity with the concept of prevention, there are many other reasons for poor response for screening programs, mainly, lack of communication regarding the availability and benefits of cervical screening and lack of support from the husbands. In some countries, especially in India, culturally, husbands are decision-makers of their wives health care. Many diseases in India has stigma attached to it; cervical cancer is one among them, which is associated with sexually transmitted diseases and extra marital relationships. This is one of the reasons why most Indian women refuse to be screened. In a northern Indian study, the reasons for non-participation in the screening were reported as lack of symptoms, lack of counseling, physician do not request and even fear of vaginal examination. A study in slum area of Mumbai also shows awareness of cervical cancer and pap smear test among couples is low. Thus, it is essential that women and family members need to be empowered with the knowledge about

cervical cancer and the importance of screening for the disease.

## 2. Need for the Study

All human life on this planet is born from woman. Woman is important part of every family. She nourishes her fetus and gives birth to a child. Health of mother is tender and needs component of total care. They cannot be neglected because of the fact that if mother is healthy, children will be healthier which in turn affect nation's health. So mental, physical and physiological health affect the health of the family and the nation. Most women who die from cervical cancer, particularly in developing countries, are in the prime phase of their lives.

Cervical cancer is the second most common cancer and third most common cause of cancer deaths among women in the less developed regions. In India, cervical cancer is the second most common cancer, with an estimated 132,314 new cases and 73,337 deaths in the year 2015.

In new Delhi, the Indian Council of Medical Research (ICMR) 2016 the total number of new cancer case is expected to be around 14.5 lakh and is likely to reach nearly 17.3 lakh new cases in 2020. Over 7.36 lakh people are expected to succumb to the disease in 2016 while the figure is estimated to shoot up to 8.8 lacs by 2020. Data also revealed that only 12.5 % of patient comes from treatment in early stage of disease. Cancer of cervix is the second most common cancer with estimated 1 lakh new cases in 2016 and about 1.04 lacs during 2020. Cancer associated with the use of tobacco account for about 30 % of all cancer in male and female, according to ICMR report.

This study is conducted by various researchers have shown that women have limited knowledge about cervical cancer. Hence I strongly felt the need to enhance the knowledge of women about cervical cancer through planned teaching programme. This study is a humble attempt toward a big goal of creating awareness among women regarding cervical cancer in selected villages in Gurugram.

### Objectives

- To assess the pretest knowledge score regarding early detection and prevention of cervical cancer among women in selected village in Gurugram.
- To assess the posttest knowledge score regarding early detection and prevention of cervical cancer among women in selected village in Gurugram.
- To find the association between posttest knowledge score regarding early detection and prevention of cervical cancer among women with selected demographic variable in selected village in Gurugram.

## 3. Review of Literature

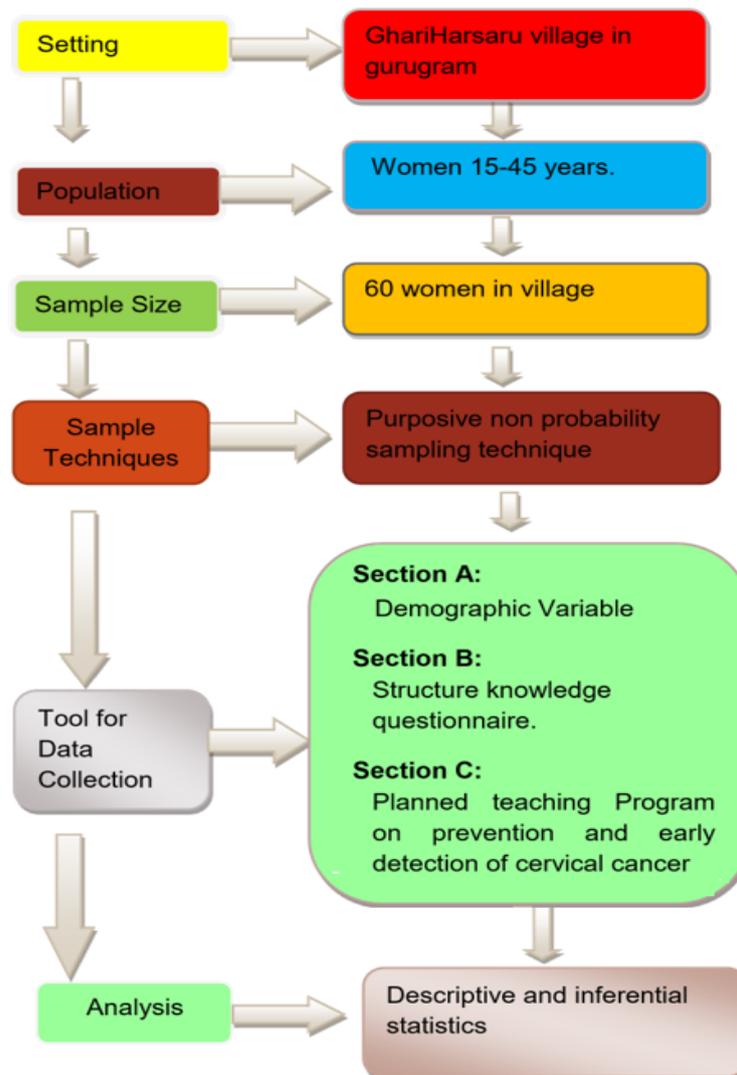
**Tata S, Joshi R, Pratinidhi A (2018)** conducted a quasi-experimental study to assess the effectiveness of planned health education on knowledge of nurses working at tertiary care hospital regarding early detection of cancer cervix karad, western Maharashtra, India. 168 sample were selected by simple random sampling technique. Structured

knowledge questionnaire was used for data collection. The study finding revealed that the planned health education was effective in increasing the knowledge at the level of  $P < 0.001$  in service education training at the time of induction program and also frequently to refresh to sensitize the nurses with updating knowledge is recommended so that they can motivate the symptomatic and asymptomatic women who those are attending hospital as an outdoor patient or coming with the indoor patient as caretakers

**Aweke YH, Ayanto SY, Ersado TL (2017)** conducted a cross-sectional study to assess Knowledge, attitude and practice for cervical cancer prevention and control among women of childbearing age in Hossana Town, Hadiya zone, Southern Ethiopia. 583 participants were selected using systematic random sampling technique. Pretested structured

interviewer administered questionnaire was used to gather the data. The study finding revealed that 270(46.3%) of the respondents had poor comprehensive knowledge. Only 58 (9.9%) of participants had been screened for the cervical cancer before the survey. 203 (34.8%) of participants had negative attitude towards selected proxy variables. Poor knowledge score was associated with poor attitude This study highlighted the importance of awareness creation, increasing knowledge, promoting active searching for health information and experiences of receiving information from any information sources regarding cervical cancer.

**4. Methodology**



**Research design:** The research design is an overall plan for how to handle research process.

Pre-experimental one group pretest and posttest design, where only the experimental group is selected as the study subject. A pretest observation of the dependent variables is made before implementation of the selected group, the treatment is administered, and finally a posttest observation of dependent variables is carried out to assess the effect of treatment on the group.

**Table 1**

Group	Pretest	Treatment	Post test
Experimental group	01	X	02

Key:

01=Pretest to assess the knowledge regarding Early Detection and Prevention of Cervical Cancer among women in selected village in Gurugram.

X= Administration of Planned Teaching Program regarding Early Detection and prevention of cervical cancer.

02= Post test to assess knowledge regarding Early Detection and Prevention of Cervical Cancer among women in selected village in Gurugram.

**Research setting:** Ghari Harsaru village in Gurugram  
Population of the study: The population for the study comprised of women aged between 15-45.

### Criteria for sample selection

Inclusion criteria:

Women in the age group of 15-45 years  
Women who are willing to participate in the study.

Exclusive criteria:

Women who had undergone hysterectomy.  
Women who are not willing to participate in study.  
Sampling Technique: -Purposive sampling technique.  
Sample size: - 60 Women.

### Tool for data collection:

Section A: Selected Demographic variable like age, religion, education, occupation, marital status, number of children, health related information.

Section B: Structure Knowledge Questionnaire regarding early detection and prevention of cervical cancer.

Section C: Planned Teaching Programme on early detection and prevention of cervical cancer.

## 5. Data Analysis

The finding of the study revealed that pre test knowledge 35% had poor, 60% had average, 5% had good knowledge regarding early detection and prevention of cervical cancer. Post test knowledge 0% had poor, 25% had average, 75% had good knowledge regarding early detection and prevention of cervical cancer. Knowledge was significantly associated with religion 0.02 at significance of  $p < 0.05$  level. No association was found between knowledge and other demographic variables like age, education, occupation, marital status, number of children, health information.

**Discussion:** The research finding of the present study "A pre experimental study to assess the effectiveness of planned teaching programme (PTP) on knowledge regarding early detection and prevention of cervical cancer among women in selected village in Gurugram with the findings of other studies.

**First objective:** To analysis the data regarding knowledge of early detection and prevention of cervical cancer. 35% women had poor knowledge 60% had average knowledge and 5% had good knowledge. In congruence with Thavamni K, Susila C (2015) prevention and early detection of cervical cancer. In pretest 28(93.3%) women had inadequate knowledge 2(6.7%) women had moderate adequate knowledge and 0(0%) had adequate knowledge.

**Second objective:** To assess the posttest knowledge score regarding early detection and prevention of cervical cancer among women. 25% women had average knowledge 75% were good knowledge. Significantly proven the effectiveness of PTP regarding early detection and prevention of cervical cancer. In congruence with Naregal PM, Mohite V, Anagha VK (2017) to assess the

effectiveness of planned teaching programme on knowledge regarding cervical cancer among women. In posttest knowledge score 30(50%) had good knowledge 25(41.7%) had average knowledge 5(8.3%) had poor knowledge.

**Third objective:** To find the association between posttest knowledge score regarding early detection and prevention of cervical cancer among women with selected demographic variable. In the present study demographic variables such as religion was showing association with knowledge score at the level of significance of  $p < 0.05$ . The present study is supported by Naregal PM (2016) who conducted a study to assess effectiveness of planned teaching programme on knowledge regarding cervical cancer among women. There was no significant association between knowledge score of women with the selected demographic variables.

## 6. Conclusion

The study concluded that there was a significant difference in knowledge score of women before and after administering the planned teaching program (PTP) regarding early detection and prevention of cervical cancer. The association of posttest knowledge score regarding early detection and prevention of cervical cancer among women with selected demographic variables religion 0.02, found significant at  $p < 0.05$  level of significance. It was proven that the effectiveness of planned teaching program was effective for women regarding early detection and prevention of cervical cancer.

## 7. Limitation

- Age group 15-45 year women.
- The women who are willing to participate in the study
- The women who will be available at time of data collection.

## 8. Recommendations

On the basis of the findings of the study, the following recommendations have been made for further study:

- The study can be replicated on larger sample.
- A similar study can be conducted in a different community to find out the significant difference between urban and rural communities.
- A follow-up study of planned teaching program could be carried out to find out the effectiveness in terms of retention of knowledge.
- An experimental study to determine the practice on early detection of cervical cancer could be incorporated.
- A planned teaching programme can be developed for women and its effectiveness can be evaluated.

## References

- [1] Reeder.S.J, Martin LL and Koniak.D. Maternity Nursing; 17th edition; Philadelphia Lippincott co. (1992)
- [2] M.S Jasmine Philip. Experimental Research study on Prevention and Treatment of cervical cancer,

- [Unpublished dissertation]. Bangalore Rajiv Gandhi University;2010
- [3] Bruni L, Diaz M, Castellsagué X, Ferrer E, Bosch FX, de Sanjosé S. Cervical human papillomavirus prevalence in 5 continents, meta-analysis of 1 million women with normal cytological findings. *J Infect Dis* 2010; 202:1789-1799.
- [4] IARC, Human papillomaviruses; in *Biological Agents. A Review of Human Carcinogens. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans.* Lyon, IARC,2012,vol100B.<http://monographs.iarc.fr/ENG/Monographs/vol100B/mono100B-11.pdf> (accessed September 2014).
- [5] Clifford G, Franceschi S, Diaz M, Muñoz N, Villa LL. HPV type-distribution in women with and without cervical neoplastic diseases. *Vaccine* 2006; 24(3):26-34.
- [6] Insinga RP, Dasbach EJ, Elbasha EH, Liaw K, Barr E. Progression and regression of incident cervical HPV 6, 11, 16 and 18 infections in youngwomen. *Infect Agent Cancer* 2007; 2-15.
- [7] WHO: *Weekly Epidemiological Record.* Geneva, October, 2014; 43 (89):465-492. <http://www.who.int/wer/2014/wer8943/en/>.
- [8] Denny LA, Francheschi S, de Sanjosé S, Heard I, et al: Human papillomavirus, human immunodeficiency virus and immunosuppression. *Vaccine* 2012 ;(30):168-174.
- [9] <http://www.mid-day.com/articles/over-17-lakh-new-cancer-case-in-india-by-2020-icmr/17248152>.
- [10] Eileen M. Burd, *Clinical Microbiology Reviews* 2003 Jan; 16(1): 1-17.
- [11] Mahbooben Safaeian, Diane Solomon. *Obstetrics gynecology clinics of North American* 2007 Dec; 34(4):739. [Articles.timesofindia.indiatimes.com](http://Articles.timesofindia.indiatimes.com)
- [12] American cancer society, surgery for cervical cancer. [http// wikipedia,encyclopedia/wks/cervicalcancer](http://wikipedia,encyclopedia/wks/cervicalcancer).
- [13] Alberto Manetta. Cancer prevention and early diagnosis in women. *New England of Medicine* 2004 Sep; 3(6): 388.
- [14] Shah V, Vyas, Singh A, Shivastava M, conducted a study to assess theAwareness and Knowledge of cervical cancer and its prevention among the nursing staff of a tertiary health institute in Ahmedabad, Gujarat, India. *Ecancermedical science* 2012; (6): 270. <http://ecancer.Org/journal/6/full/270>.
- [15] Vinsi M.S, Singh M, a study to assess the Knowledge regarding cervical cancer and its prevention among B.sc Nursing Students in Bombay hospital, Indore. *International journal of current Research*, March 2014; 6(3): 5789- 5790.