

# **Assess the Effectiveness of Information Module on Awareness of cervical cancer among women residing at Loni Bk village**

**Rajendra D. Lamkhede<sup>1</sup>, T Sivabalan<sup>2</sup>**

<sup>1</sup>PhD Scholar, Pravara Institute of Medical Sciences (Deemed To Be University), College of Nursing, Loni (Bk). Maharashtra, <sup>2</sup>Dean, Faculty of Nursing, Pravara Institute of Medical Sciences (Deemed To Be University), College of Nursing, Loni (Bk). Maharashtra

## **Abstract**

**Introduction:** Cervical cancer a major problem in developing countries. Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled, it can result in death. Cancer is caused by both external factors (tobacco, infectious organisms, chemicals, and radiation) and internal factors (inherited mutations, hormones, immune conditions, and mutations that occur from metabolism). The study was carried out to determine the effectiveness of Information Module on awareness of cervical cancer among women.

**Material and Methods:** Using a Quasi experimental study, pre-test post-test design without control group approach was used. Non Probability sampling technique was used for selecting 380 women at Loni (Bk). Data was collected with help of pretested dichotomous questionnaire on knowledge on cervical cancer and after collecting the base line data and pretesting, the information module were provided to the participants followed by the post test was carried out on 10<sup>th</sup> day. The collected data were organized, tabulated and analysed by using descriptive and inferential statistics methods wherever required.

**Results:** Socio-demographic Characteristics Showed that maximum numbers of 182 (45.50%) women were from age group of below 35 years, 182 (45.5%) had a primary education, 301(75.25%) of women are Hindu, 348(87%) women live in nuclear family, 380(95%) of women are married, 374(93.5%) of mothers were house maker, 353(88.25%) of women have monthly family income of 3.5,547 – 9,248 Rs, 171(42.75%) women have menarche age of 13 year, 380(95%) of women were married at the age of 18-25, 245( 61.25%) women conceived for the first time at the age of 18-25. The mean post test score 22.18(SD=2.23) was higher than the mean pretest score 11.6(SD=2.5) .The computed t-test statistic value is 65.94, Corresponding p-value was 0.000, which is small (less than 0.05). It shows that the information module was effective method for improving the knowledge of women regarding cervical cancer. Association between the awareness on cervical cancers with their selected socio demographic variables results showed that p value is less than 0.05 there was no significant association between the awareness on cervical cancers with their selected socio demographic variables of women.

**Conclusion:** Majority of women had poor knowledge. 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.

**Key terms:** *Effectiveness, Information Module, Awareness, cervical cancer, and women*

## **Introduction**

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled, it can result in death. Cancer

is caused by both external factors (tobacco, infectious organisms, chemicals, and radiation) and internal factors (inherited mutations, hormones, immune conditions, and mutations that occur from metabolism). These causal factors may act together or in sequence to initiate or

promote carcinogenesis. Ten or more years often pass between exposure to external factors and detectable cancer. Cancer is treated with surgery, radiation, chemotherapy, hormone therapy, biological therapy, and targeted therapy.<sup>1</sup>

The current Indian population is 1.27 billion. The incidence of cancer in India is 70-90 per 100,000 population and cancer prevalence is established to be around 2,500,000 with over 800,000 new cases and 5,50,000 deaths occurring each year.<sup>2</sup>

Incidence of cervical cancer is still very high in India as compared to western countries. It is the commonest genital malignancy and leading cause of women's mortality. It is very unfortunately to see so many cervical cancer patients in India when there are preventive and screening methods available. The screening method is cheap but still not used as a national screening method in our country.<sup>3</sup>

In India, cervical cancer is one of the most common causes of cancer-related deaths. According to National Institute of Cancer Prevention and Research, one woman dies of cervical cancer every 8 minutes in India.<sup>4</sup>

According to the ICMR (2012-2014), the annual percentage change (APC) over time in incidence of cervical cancer in Bengaluru at 2.26%, Bhopal(-1.81%), Chennai(-.48%), Delhi(-2.73%) and Mumbai(-1.99%). All these regions showed a significant decrease for annual average rate for 3-5 years.

A study done by Koshy G, Gangadharan V, Naidu .on assess the knowledge and attitude of female graduate students on cervical cancer According to present study, 93% of medical, 75% of nursing and only 29% of engineering students and 9 % of other students were actually even aware of the term cervical cancer. Assessment of knowledge regarding the risk factors of cervical cancer revealed that 13 medical, 9 nursing, 75 of engineering and 85 of Other Graduates weren't aware of any risk factor that causes cervical cancer. As regards to attitude of the students towards cancer, present study revealed 4 medical, 23 nursing, 10 engineering and 9 general public women think that it is incurable and leads to death.<sup>5</sup>

A study done by Ashok Kumar on Effectiveness

of an Informational Booklet on Prevention of Cervical Cancer in Terms of Knowledge and Attitude of Female College Students.. According to present study findings suggest that the mean post-test knowledge score (25.9) was significantly higher than mean pre-test knowledge score (20.2) at  $p < 0.05$ . The subjects after exposure to the informational booklet gained a significantly higher attitude score (96.56 versus 68.11 at  $p < .05$ .) The study concluded that informational booklet was effective in enhancing knowledge as well as modifying the attitude of female college students on prevention of cervical cancer.<sup>6</sup>

## Materials and Methods

**Study Setting and Design:** In view of the nature of the problem selected for the study and objective to be accomplished evaluative research approach was considered. A Quasi experimental study, pretest-posttest design without control group approach was used. Independent variable of the study was information module for a woman regarding cervical cancer, and knowledge scores as measured by structured questionnaires was dependent variable. Study was done in the Loni Bk village, Rahata Taluka, Ahmednagar District, Maharashtra, India.

### Sample Size, Sampling Technique, Study duration and Study Population:

Expected proportion of women was taken. The sample of the study and taking absolute precision of 9% and Confidence interval of 95% the sample size was found to be 380. The study participants were selected by Non-Probability sampling method by convenience sampling. During the study period 380 consecutive women who consented for the study were enrolled. Ethical approval from the Institutional ethics committee of PIMS-DU, Loni (BK) was obtained (**Ref. No: PIMS/CON/2016/132**). After an extensive review of literature and with the help of experts structured knowledge questionnaire was prepared to assess the level of knowledge of women regarding the cervical cancer.

The tools consist of two sections:

**Section I:** Demographic characteristics of cervical cancers among the women

**Section II:** Dichotomous Questionnaire on

Knowledge on Cervical Cancer

**Data Collection**

Prior approval was obtained from the Institutional Ethics/Research Committee of PIMS (DU), written permission was sought from Sarpanch, Gram Panchayat, Loni (Bk) and the informed consent were obtained from the participants. Day 1<sup>st</sup> Data collection was done by using Dichotomous Questionnaire On Knowledge On Cervical Cancer and after collecting the base line data and the pretest; the information module were provided to the participants followed by the posttest on day 10th. Women actively participated and cooperated during data collection.

**Data Analysis**

The data obtained was analyzed in terms of the objective of the study using descriptive and inferential statistics. The plan of data analysis was developed under the excellent direction of experts in the field nursing and statistics.

The plan of data analysis was as follows:

1. Organization of data in a master sheet.
2. Tabulation of data in terms of frequency, percentage, mean, standard deviation (SD), median, and range to describe the data.
3. Classifying knowledge scores using mean and standard deviation (SD) as follows:

$$(SD+X) = \text{Good}$$

$$(SD+X) - (SD-X) = \text{Average}$$

$$(SD-X) = \text{Poor.}$$

A score of one was awarded to all correct answers while score of zero was awarded to all incorrect answers of structured questionnaire.

1. Inferential statistics were used to draw the following conclusions: Paired t-test was used for testing effectiveness of information module on knowledge of women, and Chi-square test was used to find association.

**Results**

**Section A: Distribution of women according to socio-demographic variables.**

The distribution of women according to socio-demographic variables, data shows that maximum numbers of 182 (45.5%) women were from age group of below 35 years, 182 (45.5%) had a primary education, 301(75.25%) of women are Hindu, 348(87%) women live in nuclear family,380(95%) of women are married, 374(93.5%) of mothers were house maker, 353(88.25%) of women have monthly family income of 3.5,547 – 9,248 Rs, 171(42.75%) women have menarche age of 13 year, 380(95%) of women were married at the age of 18-25, 245( 61.25%) women conceived for the first time at the age of 18-25.

**Section B: Distribution of women according to knowledge scores on cervical cancer.**

**Figure: 1. Pre test and post test score regarding awareness on cervical cancers among the women.**

Above figure shows that in pre-test majority 4 (1.05%) woman had good knowledge and 333(87.63%) had average knowledge, respectively, and 43 (11.32%) had poor knowledge regarding cervical cancer. Where as in post-test majority 368 (96.84%) woman had good knowledge, 12 (3.16%) had average knowledge and 0 (0%) women had poor knowledge regarding cervical cancer.

**Section C: Testing of Hypothesis (H1) for evaluation of the Effectiveness of Information Module on Awareness among women regarding cervical cancer.**

**Table No 1**

| Knowledge level | Mean  | SD   | t-value | P-Value   | Remark      |
|-----------------|-------|------|---------|-----------|-------------|
| Pre-Test        | 11.62 | 2.52 | 65.94   | <0 .00001 | Significant |
| Post-test       | 22.18 | 2.23 |         |           |             |

Table No 1. Pre test and post test mean score after intervention

Above table shows that there was a significant increase in post-test scores of women. The mean post-test knowledge score  $11 \pm 2$  of women was significantly higher than their pre-test knowledge score  $22 \pm 2$ . The computed t-test statistic value is 65.94, Corresponding p-value was 0.000, which is small (less than 0.05), and the null hypothesis is rejected. It shows that the information module was effective method for improving the knowledge of women regarding cervical cancer.

**Section C:** Association between the awareness on cervical cancers with their selected socio demographic variables. Chi-square test was used to find the association between the awareness of cervical cancer with their women with selected socio demographic variables. The results showed that p value is less than 0.05 there was no significant association between the awareness on cervical cancers with their selected socio demographic variables of women.

## Discussion

This study was a quasi-experimental study; pretest-posttest design without control group approach was used to assess the Effectiveness of Information Module on Awareness among women regarding cervical cancer. The mean post test score  $22.18 (SD=2.23)$  was higher than the mean pretest score  $11.62 (SD=2.51)$ . The computed t-test statistic value is 65.94; Corresponding p-value was 0.000, which is small (less than 0.05). It shows that the information module was effective method for improving the knowledge of women regarding cervical cancer.

A same study was conducted by Ms. S. Shakila, Dr. S. Rajasankar, Dr. N. Kokilavani. A study to assess the Knowledge regarding Cervical Cancer among Women. The study design was univariate research design was used for the study. An objective for study is To assess the level of knowledge regarding cervical cancer among women and to find out the association between knowledge score regarding cervical cancer with selected demographic variables of women. The study was conducted in Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research. Kanchipuram district. Univariate research designs were adopted for this study. The convenient sampling technique was used to select the

fifty samples. The data were collected by administering the structured knowledge questionnaire on cervical cancer to assess the level of knowledge among women. The result showed that majority 35(70%) had inadequate knowledge of 15(30%) had moderately adequate knowledge regarding cervical cancer among women. It was statistically proved that education, religion and source of information are significant association ( $P < 0.05$ ) with knowledge score of women. There by H1 is accepted for selected demographic variables. The demographic variables like age, occupation, income, and number of children, are not significant association at ( $P > 0.05$ ). Hence H0 is accepted. The study finding revealed that it's the responsibility for the health professional to create awareness to all women regarding cervical cancer and to develop desirable attitude to practice healthy behaviour and will help to reduces the morbidity and mortality rate of cervical cancer. Factors like education and source of information helps to develop desirable attitude and knowledge regarding cervical cancer. The study stated that knowledge level and understanding of cancer as well as its preventable nature should be improved consisting nurse education may strengthen cervical cancer screening programme Health care professional has to create awareness of disease can educate masses and increase health seeking behaviour women.<sup>7</sup>

## Conclusion

Results of the study conclude that awareness of women on cervical cancer was inadequate in pre-test but then after the administration of information booklet there was an increase in the awareness about cervical cancer, so STP was effective in increasing the awareness of women regarding cervical cancer.

**Source of Funding:** Self

**Conflict of Interest:** None

## References

1. Cancer Screening. American Society of Clinical Oncology available at <https://www.cancer.net/cancer-types/screening-and-prevention> cited on 18.12.2019
2. World Cancer Day: Get the Awareness Gene ON! 2017, available on <https://www.mapmygenome.in> cited on 03.02.2017
3. Cervical Cancer Screening Guidelines. American

- Cancer Society. Available on <https://www.cancer.org> cited on 25.04.2020
4. Cervical Cancer. Society of gynaecologic oncology. available on <https://www.sgo.org> cited on 25.04.2020
  5. Koshy G, Gangadharan V, Naidu A. A study to assess the knowledge and attitude of female graduate students on cervical cancer. *Int J Res Med Sci* 2017; 5:4545-9. Available on <https://www.msjonline.org>.
  6. Ashok Kumar. Effectiveness of an Informational Booklet on Prevention of Cervical Cancer in Terms of Knowledge and Attitude of Female College Students. *Research & Reviews: Journal of Oncology and Hematology* 2017. Volume 3, Issue 1. page no 5-10. available on <https://www.researchgate.net>.
  7. Shakila S, Rajasankar S, Kokilavani N. A study to assess the Knowledge regarding Cervical Cancer among Women. *Asian Journal of Nursing Education and Research*. 2015 Sep 28;5(3):307-10. <https://www.ajner.com>.