

BIJNEER

Benziger International Journal of Nursing Education, Extension & Research

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EFFECTIVENESS OF SELF-INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING CERVICAL CANCER AND ITS PREVENTIVE MEASURES AMONG WOMEN

ABSTRACT

An experimental study was conducted to evaluate the effectiveness of a self-instructional module on knowledge about cervical cancer and its preventive measures among women in a selected rural area of Kottayam district. The study aimed to assess whether structured educational material could enhance awareness and understanding of cervical cancer among rural women, who are often at higher risk due to limited access to health information.

The sample consisted of 45 married women from Athirampuzha panchayath, selected using a non-probability convenience sampling technique. A structured knowledge assessment questionnaire containing 20 questions was used to assess participants' baseline knowledge during the pre-test. Following this, a self-instructional module was provided, which included detailed information on cervical cancer, such as its causes, risk factors, clinical manifestations, diagnostic investigations, medical management, and preventive measures.

After a period of seven days, a post-test was conducted using the same questionnaire to evaluate the knowledge level. The collected data were analyzed using both descriptive and inferential statistical methods. The findings showed a significant increase in the level of knowledge among the participants after the intervention. The mean post-test knowledge score (15.31) was substantially higher than the mean pre-test score (8.75), indicating a marked improvement in awareness and understanding.

The results of the study clearly demonstrated that the self-instructional module was an effective educational tool in enhancing knowledge regarding cervical cancer and its prevention. The study concluded that such educational interventions can play a crucial role in improving health awareness among rural women and may contribute to early detection and prevention of cervical cancer.

Key Words: Self-instructional module; knowledge; cervical cancer; preventive measures

INTRODUCTION

Cancer is a generic term for a large group of diseases that can affect any part of the body. Other terms used include malignant tumours and neoplasms. One defining feature of cancer is the rapid creation of abnormal cells that grow beyond their usual boundaries and invade adjoining parts of the body, spreading to other organs. This process is known as metastasis, and widespread metastases are the primary cause of death from cancer (World Health Organization)¹. In 2022, there were an estimated 20 million new cancer cases and 9.7 million deaths worldwide. The number of people who were alive within five years following a cancer diagnosis was 53.5 million. About 1 in 5 people develop cancer during their lifetime, and approximately 1 in 9 men and 1 in 12 women die from the disease². Cervical cancer is a malignant tumour of the cervix caused by the human papillomavirus (HPV). It begins when healthy cells on the surface of the cervix become infected with HPV and grow uncontrollably, forming a mass called a tumour. Cervical cancer is the second most common cancer in females after breast cancer³. The cervix is the lower end of the womb (uterus), located at the top of the vagina. It measures about 2.5 to 3.5 centimetres (1 to 1.3 inches) in length. The cervical canal passes through the

cervix, allowing menstrual blood and a baby (foetus) to pass from the womb into the vagina. Sperm travel from the vagina through the cervical canal into the uterine cavity and then into the fallopian tubes to fertilize the egg⁴. Globally, cervical cancer is the fourth most common cancer in women, with around 660,000 new cases reported in 2022. India accounts for about 20% of global cervical cancer cases⁵. The highest rates of incidence and mortality are observed in low- and middle income countries, reflecting major inequities caused by lack of access to national HPV vaccination programs, cervical screening and treatment services, and other social and economic determinants. Cervical cancer is caused by persistent infection with HPV. Women living with HIV are six times more likely to develop cervical cancer compared to women without HIV¹. In India, cervical cancer is ranked as the second most common cancer among women, with alarmingly high incidence rates in some regions². Persistent HPV infections, most commonly transmitted through genital skin-to-skin contact or vaginal intercourse, are the main cause of cervical cancer¹. It remains one of the leading causes of cancer-related death among women³. The most common factor contributing to the high number of cases is a lack of knowledge about screening or unawareness of the need for screening⁴. Cervical cancer continues to be a major public health problem even in developed countries⁵. More than three-fourths of patients are diagnosed at advanced stages, leading to poor chances of long-term survival and cure⁵. Early detection of cervical cancer is possible with Pap smear testing. While 68% to 84% of women in developed countries undergo Pap smears, the rates in India are much lower, ranging from 2.6% to 6.9%⁶⁻⁹. In many developed countries, the annual incidence and prevalence of cervical cancer has decreased by 50%-70% following the introduction of population-based screening². Therefore, if women in India undergo screening, cervical cancer can be detected in its early stages, significantly reducing morbidity and mortality

NEED AND SIGNIFICANCE OF THE STUDY

Cervical cancer is one of the leading causes of cancer death among females worldwide. Knowledge of people regarding screening programs and HPV vaccination is poor.¹⁰ So, the early detection, HPV vaccination and screening can lower the cases of Cervical Cancer. Early detection through regular screening (Pap smear and HPV testing) and preventive vaccination can significantly reduce the incidence and mortality of cervical cancer¹¹. Effective screening methods like Pap smear and HPV, DNA testing is underutilized in resource-poor settings. Screening programs, combined with vaccination, could potentially eliminate cervical cancer as a public health concern by the end of 21st century. High prevalence and mortality in underserved populations due to lack of awareness and access to healthcare. The preventable nature of the disease with existing tools such as the HPV vaccine and effective screening methods. The opportunity

for complete elimination of cervical cancer as a public health problem is through global initiatives like WHO's 90-70-90 strategy: 90% HPV vaccination, 70% screening coverage, and 90% treatment of precancerous lesions and invasive cancer. Investing in cervical cancer awareness, prevention, and treatment not only saves lives but also reduces healthcare costs, improves women's reproductive health, and enhances quality of life.¹² This Self instructional module will help Woman in rural area to get adequate knowledge regarding cervical cancer and its preventive measures.

PROBLEM STATEMENT

An experimental study to assess the effectiveness of self instructional module on knowledge regarding cervical cancer and its preventive measures among women in selected rural area of Kottayam district

OBJECTIVES

- 1.To assess knowledge regarding cervical cancer and its preventive measures among women.
- 2.To determine the effectiveness of self-instructional module on knowledge regarding cervical cancer and its prevention.
- 3.To find an association between pre-test knowledge score among women and selected demographic variables.

HYPOTHESES

H₁: There will be significant difference between the pre-test and post-test knowledge score regarding cervical cancer and its preventive measures among women.

H₂: There will be significant association between pre-test knowledge scores on cervical cancer and its preventive measures with selected demographical variables among women.

Sample

Women residing in rural area.

Sample size: 45

Sampling technique

Non- probability Convenient sampling

MATERIALS AND METHODS

Materials

The tool was a structured knowledge questionnaire with Section A (10 items) for assessment of demographic variables and section B containing 20 Multiple Choice Questions regarding the contents provided in the self instructional module. Level of knowledge is categorised as 4 levels, (0-5) Poor, (6-10) Average, (11-15) Good, (16-20) Excellent. This tool was developed by researchers and validated by 5 experts from the field of Obstetrics and Gynaecology Department and Medical Surgical Nursing Department

Methods

Research approach and design: Quantitative research approach with Pre experimental -One group pre-test post- test design.

Variables:

Independent Variable was Self instructional module regarding knowledge of cervical cancer and its preventive measures.

Dependent variable was knowledge level regarding cervical cancer and its preventive measures.

RESULTS & DISCUSSION

Table no 1: Description of subjects according to their demographic variables (N=45)

SI No:	Demographic	Frequency	Percentage (%)
AGE			
1	25-30 years	7	20
2	31-35 years	8	13
3	36-40years	9	18
4	41-45years	7	13
5	46-50 years	14	36
EDUCATION			
1	Primary	11	24
2	Highschool	10	22
3	Diploma	9	20
4	Graduate	13	29
5	Others	2	4
OCCUPATION			
1	Housewife	22	49
2	Daily wage	6	13
3	Private employee	13	29
4	Government employee	3	7
5	Self employee	1	2
	Others	0	0
MONTHLY INCOME			
1	4000-6000	20	42
2	6001-8000	12	22
3	8001-10000	4	18
4	Above 10000	9	18
MENSTRUAL AGE			
1	9-12	10	22
2	13-15	33	73
3	Above 16	2	4
MENSTRUAL PATTERN			
1	Regular	41	84
2	Irregular	5	16
AGE OF MARRIAGE			
1	18-21	14	31
2	22-25	21	47
3	Above 26	10	22

NO.OF CHILDREN			
1	0	3	7
2	1	8	27
3	2	28	49
4	3	6	18
5	Above 4	0	0
MODE OF DELIVERY			
1	Normal	32	71
2	Caesarean section	9	20
3	Normal & caesarean section	1	2
4	Not applicable	3	7
HISTORY OF CANCER			
1	Yes	7	22
2	No	38	78

In pretest 36% of subjects were in the age group of 46 – 50. 29% of them were graduates. Among the participants 49 % of them were housewives. 42% of subjects had a monthly income of Rs. 4000-6000.73% of women attained menstruation at the age of 13-15years. Majority of them had regular menstrual cycle(84%). 47 % of women married between 22-25 years. 49% of them had 2 children .71% of women had normal delivery. Most of them had no history of cancer (78%).

Table no 2. Knowledge level of subjects regarding cervical cancer and its preventive measures before and after self instructional module (SIM)

(N=45)

Level of knowledge	Pretest		Post test	
	f	(%)	f	(%)
Excellent	0	0%	24	53.33%
Good	9	20%	18	40%
Average	30	66.66%	3	6.66%
Poor	6	13.33%	0	0%

In the pre-test, 66.66% of subjects had average knowledge, 20% had good knowledge and 13.33% had poor knowledge regarding cervical cancer and its preventive measures. In the post test 53.33% of women had excellent level of knowledge and 40% had good level of knowledge and about 6.66% had poor level of knowledge. There was significant increase in knowledge level of participant after the use of self instructional module.

Table no : 3 Effectiveness of self instructional module on knowledge regarding cervical cancer and it's preventive measures

Test	Mean	SD	t value	p value
Pre test	8.75	± 3.01	13.66	0.05
Post test	15.31	± 5.37		

The mean pre-test knowledge score was 8.75 with a standard deviation of 3.01, indicating that the participants had relatively low baseline knowledge before the intervention. After the intervention the mean post-test knowledge score increased to 15.31 with a standard deviation of 5.37, showing an improvement in knowledge levels among the participants. The calculated t-value was 13.66, which is a high value, indicating a substantial difference between the pre-test and post-test scores. The obtained p-value was 0.05. As the calculated t-value is high and the p-value is at the level of significance ($p \leq 0.05$), the difference between the pre-test and post-test knowledge scores is statistically significant.

DISCUSSION

The present study results showed that the mean pre-test score was 8.75, the mean post-test score was 15.31, and the t-value was 13.66 at the 0.05 level of significance. There was a significant difference between the pre-test and post-test knowledge score regarding cervical cancer and its preventive measures among women. A similar study was conducted in Mangalore to assess the effectiveness of a self-instructional module on knowledge regarding cancer of the cervix and its prevention among married women. The pre-experimental research design tested the knowledge of the subjects before and after the administration of the self-instructional module. The mean pre-test score was 8.37, and the mean post-test score was 24.85, showing a significant difference between the pre-test and post-test knowledge scores regarding cervical cancer and its preventive measures among women.¹³

CONCLUSION

The findings of the study revealed that

- Self instructional module was effective in increasing the knowledge among women of age group 25-50 years regarding cervical cancer and its preventive measures.

Ethical Approval

Approved

Acknowledgements

Here we extend our sincere thanks to all people who participated in the study.

Source of funding - Self

Conflict of interest

The author declares no conflict of interest in the study.

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