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Effectiveness of an information booklet on Prevention and early detection of cervical cancer in terms of knowledge among female school teachers in selected secondary schools in Mairang Town, Meghalaya State.

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Introduction: A pre-experimental study was undertaken with one group pretest posttest design to find the effectiveness of Information booklet on knowledge of female school teachers regarding prevention and early detection of cervical cancer in selected secondary schools, Mairang Town, Meghalaya State. **Objectives:** The main objectives of the study were to assess the knowledge of female school teachers on prevention and early detection of cervical cancer before and after administering the information booklet and to evaluate the effectiveness of information booklet on prevention and early detection of cervical cancer in terms of gain in knowledge. **Material and Methods:** The conceptual frame work adopted for the study was based on Health Belief Model. The sample size is 30, non-probability purposive sampling is the sampling technique adopted. The data was collected by using the structured knowledge questionnaire. **Result:** The findings of the study revealed that the mean posttest knowledge scores (23.17) of the teachers was higher than the pretest knowledge scores (12.83). The obtained mean difference was found to be statistically significant at 0.05 level of significance, as evident from calculated 't'(29)= 20.09, there by indicating the effectiveness of the information booklet regarding prevention and early detection of cervical cancer. **Conclusion :** The information Booklet on prevention and early detection of cervical cancer was effective for increasing the knowledge.

Keywords: Effectiveness, Booklet, Prevention, Early Detection, Cervical Cancer

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Introduction

Cancer may be regarded as a group of disease characterized by an abnormal growth of cells, ability to invade adjacent tissues and even distant organs and the eventual death of the affected patient. Cancer is a group of more than 200 diseases characterized by uncontrolled and unregulated growth of cells. It is a major health problem that occur in people of all ethnicities [1]. In 2008, approximately 530,000 women worldwide were diagnosed with invasive cervical cancer and 275,000 women died from it. Cervical cancer is the most common cancer in women in most East African and South Asian countries, both in terms of incidence and mortality. In fact, developing countries as a whole bear a disproportionate share of the burden of disease, accounting for 86% of all cervical cancer cases and 88% of all cervical cancer deaths worldwide. While rates of cervical cancer in developed countries have declined significantly in recent decades, rates in developing countries have fallen at a much slower rate, and rates have even risen in many developing countries. The latest data from the World Health Organization (WHO) show significant differences in the incidence and mortality rate of cervical cancer between countries.[2]

Cervical cancer is considered to be the most common cancer in women in India over the past two decades. India has a population of approximately 365.71 million women over the age of 15 who are at risk of developing cervical cancer. Current estimates put about 132,000 newly diagnosed cases and 74,000 deaths per year in India, accounting for nearly 1/3 of cervical cancer deaths worldwide.[3]

The effects on prevalence quotes supplied through the Population Based Cancer Registries (PBCRs) have proven the version in styles of most cancers in standard and that of most cancers cervix in particular. All the city Population Based Cancer Registries at Bangalore, Bhopal, Chennai, Delhi and Mumbai have proven a statistically tremendous lower in prevalence quotes of this web website online of most cancers. Since over 70 consistent with cent of the Indian populace is living withinside the rural areas, most cancers cervix nevertheless constitutes the primary most cancers in both sex. Based at the information of the PBCRs, the predicted quantity of recent cancers for

The duration of 2007 in India become 90.708. The relative five-12 months survival mentioned a while in advance averaged 48.7 consistent with cent.[4]

India has a populace of 365.71 million ladies a long time 15 years and above who stand on the threat of growing cervical most cancers. India receives approximately 1,32, 082 new instances of cervical most cancers each 12 months. The range of deaths because of cervical is anticipated to be 74,118 withinside the 12 months 2010.India has the very best occurrence fee of the most cancers withinside the global because of the lack of expertise and awareness. Among the ladies the maximum crucial styles of most cancers are gynaecological cancers along with cancers of the vulva, cervix, uterine body, ovary and choriocarcinomas. In the 12 months 2002, the entire range of stated gynaecological cancers become 9,42,000. Among the entire range of gynaecological cancers instances are maximum being 4,93,00 as stated withinside the 12 months 2002. The range of ladies who died because of cervical most cancers become 2,73,000 withinside the 12 months. [3,5]

Consider screening practises as well, given the development of effective prophylactic vaccines against HPV types 16 and 18, as well as the two low risk types 6 and 11. Preventing 16 and 18 infections could theoretically reduce cervical cancer rates by 70% globally. However, these vaccines are currently expensive and require three vaccination schedules, which may make them difficult to implement in resource-limited settings. Vaccination may reduce the number of screens detected abnormalities in developed countries. Because HPV 16 and 18 cause the most obvious severe cytologic abnormalities, and because vaccination would reduce the small percentage of abnormal tests that are HSIL or cancer, the positive predictive value of an abnormal cytology for predicting CIN3 and cancer would decrease in an era where there is widespread vaccine coverage and vaccine effectiveness lasts for a long time. As a result, screening algorithms must be re-evaluated in vaccinated populations.[6]

Though data from the 20 populations-based cancer registries in India indicate a steady decline in cervical cancer incidence rates over the last two decades, it still occupies number two position and the risk of disease is still high. These registries are predominantly urban and in the rural cancer registry in Barshi the risk of cancer of

Cervix was considerably high compared to urban Mumbai registry and it accounted for half the cancer burden.[7]

In India, maximum research has both addressed compliance price of attendees of in particular organized screening programmes or were achieved in clinic settings. Hence, this takes a look at changed into aimed to decide information tiers of ladies on most cancers' cervix, screening practices and their determinants amongst ladies' elderly among 15-50 yr. in a rural network in Kerala withinside the absence of a screening programme. [8]

Sarkar Kumkum, carried out a take a look at to decide the elements related to postpone shows of affected person with carcinoma cervix in West Bengal, 2010 and concluded that the ladies above 40yrs of age are greater susceptible to expand carcinoma of cervix. Prophylactic and healing HPV vaccine are nonetheless now no longer popularized and proof that different number one stopping measures aren't useful, secondary prevention, withinside the shape of screening and remedy of precancerous lesions is still the best manner to lessen the prevalence of cervical most cancers at the existing time[9]

Need of study

In India, cervical most cancers is a huge trouble in phrases of prevalence, morbidity and mortality. In average, about seven-hundred cervical most cancers instances are registered withinside the 12 months 2010 for remedy and amongst them a massive variety of sufferers are supplied in past due level in Chittaranjan National Cancer Institute. Although cervical most cancers is the maximum common most cancers identified in Indian girls, age-adjusted prevalence fees range from eight.eight in line with 100,000 girls populace in Thiruvananthapuram to 22.5 in line with 100,000 girls populace in Aizwal.[10,11]

In western countries, the instances of cervical most cancers have come down because of the lively recognition, vaccine and pap screenings which hit upon the most cancers at a completely early level. But India, debts for one in 8 most cancers deaths, there may be a very little recognition approximately the disease. That changed into the purpose for engaging in this gift study.

Objectives

1. To develop and validate the information booklet on prevention and early detection of cervical cancer.

2. To assess the knowledge of female school teachers regarding prevention and early detection of cervical cancer before and after the administration of the information booklet.

3. To evaluate the effectiveness of the information booklet in terms of gain in posttest knowledge score regarding prevention and early detection of cervical cancer.

4. To determine the association between the pretest knowledge level and the selected demographic variables like marital status, educational status, residence, history of cancer patient in family, pre-exposure to information about cervical cancer.

Operational definitions

Effectiveness- the results of knowledge gain of female school teacher regarding prevention and early detection of cervical cancer after introduction of information booklet which can be measured by pretest and posttest knowledge score.

Knowledge - information gathered and ability to response correctly to questions on the prevention and early detection of cancer of cervix by the school teachers after introduction of information booklet.

Information booklet- Information booklet is a self-explanatory printed materials prepared by the investigator in English language under following points-

Meaning of Cervical cancer, Risk factors causes, Sign and symptoms of cervical cancer, Screening tests and preventive measures and Treatment of cervical cancer

Cervical cancer: According to Tabers Cyclopedic Medical dictionary, Cervical cancer is a neoplasm of the cervix of uterus.

Prevention: the activities designed to protect female school teachers from actual or potential health threats and the harmful consequences of cervical cancer. Knowledge on prevention of cervical cancer by female school teachers to be measured through structured questionnaires.

Detection: In this study, detection means to identify the precancerous lesions through

Different screening tests for cervical cancer. Knowledge on detection of cervical cancer by female school teachers to be measured through structures questionnaires

Hypothesis

H1: The mean posttest knowledge score of female school teachers is significantly higher than the mean pretest knowledge score after administration of information booklet on prevention and early detection of cervical cancer at 0.05 level of significance.

H2: There is significant association between pretest knowledge score of female school teachers on prevention and early detection of cervical cancer with the selected demographic variables at 0.05 level of significance.

Method And Materials

Research approach-an evaluative approach

Research design -one group pretest posttest, pre-experimental design.

Variables

- Independent variable **-** Information booklet on Prevention and Early detection of Cervical Cancer.
- Dependent variable **-** Knowledge of the Secondary female school teachers on Prevention and early detection of cervical cancer.
- Demographic variables **-** Age, gender, educational qualification, place of residence, addiction, duration of marriage, information on prevention and early detection of cervical cancer.

Setting of the study-Mairang Town, Meghalaya State.

Sampling technique -non probability purposive sampling technique.

Sample size: The sample size was 30.

Development and Description of Tool: a structured knowledge questionnaire was developed. To collect background information, demographic proforma was developed.

Tool I -Demographic Performa

The demographic Performa has two parts-

Part A: Socio demographic data. This part has **6** items related to age, marital status, duration of marriage, income.

Part B: Personal data - It is composed of **13** items related to sexual life, addiction, health practices and exposure to mass media.

Tool II- Structured Knowledge questionnaire

A structured knowledge questionnaire was developed to assess the knowledge and information booklet on prevention and early detection of cervical cancer. The items of the questionnaire were developed as per the blue print. There were 30 items and all the items were multiple choice questions, each items had four options and only one correct answer, one mark was allowed for each correct answer. Maximum total score was 30.

Tool Validity: Prepared tool was given to 7 experts. The experts were chosen on the basis of their clinical expertise, experiences and interest in problem area.

Tool-I which contains information regarding demographic data, Part -I, Q 2, 3, 8, 9 had 70-85% agreement and are advised modification, Q 4,6,7 had below 50 % agreement and are discarded as per experts suggestion. Part -II, Q 2,3,7,8,9,12,13 had 70-80% of agreement and are advised modification and language changing. Q4, 5, had below 50% agreement and discarded as per advised by the majority of the experts. Two more questions are added as per expert suggestion.

Tool-II consisted of structured knowledge questionnaire which contains question regarding assessment of knowledge on prevention and early detection of cervical cancer, Q5,12,13,14,15.17,18,20, has 70-85% agreement and modification and language changing was done as per suggested by the experts. Q 3,6,9,25 had below 50% agreement and are discarded from area I, II, III and IV as per expert suggestions. Total number of questions after validation is 26 items.

Reliability of the tool -The reliability coefficient 0.83 as calculated by using split half technique followed by Spearman Brown prophecy formula.

Development and description of information booklet

The information booklet was prepared on prevention and early detection of cervical cancer for female school teachers. The following steps were adopted in the development of information booklet.

Preparation of the first draft of content the area covered in the information are as follows:

Meaning of Cervical Cancer, Risk factors & Causes, Screening tests and preventive measures, Signs and symptoms, Treatment of cervical cancer. Preparation of final draft of information book and printing

Validation of information booklet:

The experts were requested to evaluate and suggest on the basis of given criteria checklist. The responses were summarized in percentages and showed 85% of agreement in objectives, sequence, pictures, presentation, and practicability, 70% of agreement in language and picture.

Data Collection Process

Thirty female school teachers teaching at the secondary level were selected by using non probability purposive sampling technique. On the first day demographic proforma with structured knowledge questionnaires were given to 30 female school teachers. The pretest completed within 5 days, that is1 day in each school. On the same day information booklet on prevention and early detection of cervical cancer side was administered. The information booklet was explained to the sample for 5 minutes and informed about the post test. On the 8th day, posttest was conducted by using same structured knowledge questionnaires. The posttest completed within 5 days, that is one day in each school.

Results

Table 1: Frequency percentage distribution of female school teachers related to socio demographic data such as family monthly income, residence, pre-exposure to information**.**

N=30

Sl No.	Characteristics	Frequency	Percentage (%)
1	Age		
	21-29	5	16.6
	30-39	15	50.0
	40-49	8	26.7
	Above 50	2	06.7
2	Marital status		
	Married	16	53.3
	Unmarried	8	26.7
	Divorced	2	06.7
	Widower	4	13.3
3	Educational status		
	Graduation	17	56.7
	Post graduate	13	43.3
4	Family Monthly income (in Rs)		
	≤ 15,000	5	16.7
	15,001-20,000	7	23.3
	≥20,000	18	60.0
5	Residence		
	Urban	22	73.3
	Rural	8	26.7
6	Previously received any information		
	Yes	10	33.3
	No	20	66.7

Table 2: Area wise comparison of Mean, Mean %, Actual and Modified gain scores of female school teachers in different areas of prevention and early detection of cervical cancer.

Area	Content	Maximum total scoring	Mean %		Actual gain	Possible gain	Modified gain
			Pretest	Posttest			
I	Meaning of Ca. cervix	4	65.9	78.3	12.4	34.1	0.37
II	Risk factors & Causes	3	51.1	88.9	37.8	48.9	0.77
III	Screening tests & preventive measures	12	43.3	88.6	45.3	56.7	0.79
IV	Signs and symptoms	2	46.7	85	38.3	53.3	0.72
V	Treatment of cervical cancer	5	50	90	40	50	0.79

Table 3 : Mean, median, standard deviation and paired 't' test of pretest and posttest knowledge of female school teachers. N=30

Serial No	Knowledge Score	Mean	Mean Difference	Median	Standard deviation	't' value
1	Pretest	12.83	10.3	13	2.45	20.09
2	Posttest	23.17		23	1.39	

'T' (29) 2.05 at 0.05 level and 2.76 at .01 level

Table 4: Chi-square on pretest knowledge level with following marital status, educational level, residence, history of cancer patient in family and exposure to information.

Median= 13

Variables	χ2	df	Significance at 0.05 level
Marital status	1.44	1	NS
Education	1.15	1	NS
History of ca patient in family	0.09	1	NS
Residence	1.6	1	NS
Received information	0.6	1	NS

χ^2 1(3.841), NS- Non significant

Discussion

The findings of the existing observe withinside the region of assessing understanding on prevention and early detection of cervical most cancers amongst lady faculty instructors became supported with the aid of using the findings of the observe executed with the aid of using Aswathy S, Mariya Amin Quereshi, Beteena Kurian & Leelamoni K. of their observe on Cervical most cancers screening: Current understanding & exercise amongst girls in a rural populace of Kerala, located out nearly 3 fourths of the observe populace (584, 72.1%) became aware about cervical most cancers as a kind of most cancers affecting girls [8]. Three fourth of the populace (600, 74.2%) knew that it may be detected early with the aid of using a screening check however best 47 (5.8%) should call the Pap check because the screening approach of cervical most cancers. Though 56 (6.9%) had ever executed Pap check, best 5.8 in step with cent should don't forget the call of the screening check. Only approximately half (395, 48.8%) of the girls had been aware about signs of cervical most cancers. The cardinal signs of cervical most cancers referred to covered bleeding (289, 35.7%) and ache (70, eight.6%). Other wrong responses covered lump, stomachache, and ache in legs (9.1%). Majority of respondents (722, 89.2%) did now no longer realize any chance component for cervical most cancers and 5.3 in step with cent gave wrong responses. Lack of hygiene and more than one sexual contact had been the best chance elements stated with the aid of using 3.9 in step with cent (32) and 1.6 in step with cent (13) respondents respectively. On being requested approximately timing of Pap check, majority of girls (726, 89.7%) did now no longer realize while it need to be executed, 23 (2.8%) stated it need to be executed best while there may be any trouble and 60 (7.4%) stated it need to be executed after age of 30 yr. On periodicity, 12 (1.5%) stated it need to be executed monthly, 20 (2.5%) stated 1-2 every year and 23 (28%) each 2 to three years.[8]

An experimental study was undertaken with the objectives to assess and evaluate the effectiveness of an informational booklet on prevention of cervical cancer in terms of knowledge and attitude among female college students before and after the administration of informational booklet Paired "t" test was used to find out the significance

Of difference in mean pretest and posttest knowledge The finding recommend that the mean posttest knowledge score (25.9) was essentially higher than mean pre-test information score (20.2) at $p < 0.05$. The subjects after introduction to the instructive booklet picked up a significantly higher state of mind score (96.56 versus 68.11 at $p < .05$.) The ponder concluded that informational booklet was viable in improving information as well as adjusting the attitude of female college understudies on anticipation of cervical cancer

Sengupta also conducted a study to evaluate the effectiveness of an information booklet on the knowledge regarding the short-term side effects of radiotherapy and it's relieving measures among the patients having cervical cancer in a selected hospital in Kolkata. The tool used in this study were socio-demographic questionnaires and knowledge questionnaires. In the study the mean pretest knowledge score was 9.17, median knowledge score 10, and standard deviation was 2.18 in the ranged from 5-13, which indicated that the knowledge level of the patients having cervical cancer were assessed by the researcher. The mean posttest knowledge score (18.13) was apparently higher than the mean pretest knowledge score (9.17).[13] These findings are in congruence with the present study findings.

The findings of the study related to effectiveness of an information booklet on Prevention and early detection of cervical cancer among female school teachers was supported by the study done by Debbarma M. She had conducted a pre-experimental study to evaluate the effectiveness of an information booklet on side effects of radiation therapy and its management among patient with oral cancer in selected hospital at Agartala. The information Booklet was developed by the researcher. The paired 't' test computed between the pretest and posttest knowledge score and computed 't' value found to be 21.83 which statistically found to be significant. {'t' (29) =2.04, $p > 0.05$}.[12]

Sengupta conducted a study to evaluate the effectiveness of an information booklet on the knowledge regarding the short-term side effects of radiotherapy and it's relieving measures among the patients having cervical cancer in a selected hospital in Kolkata. The purpose of that study was to evaluate the patient having cervical cancer receiving radiation therapy for adopting measures

To relief the discomforts caused by the short-term side effects of radiotherapy. The computed paired 't' value (28.63) was found statistically significant ('t' (29) =2.04) at 0.05 level of significance. So, the study was concluded that an information booklet was effective increasing knowledge regarding the short-term side effects of radiotherapy and it's relieving measures among the patient shaving cervical cancer.[13]

Therefore, it can be concluded that the information booklet is also one of the best teaching strategies in health education.

The findings of the present study related to association between pretest knowledge score and selected variables was supported by the following study.

Sengupta conducted a study to evaluate the effectiveness of an information booklet on the knowledge regarding the short-term side effects of radiotherapy and it's relieving measures among the patients having cervical cancer in a selected hospital in Kolkata. In the study the researcher stated that there will be no significant association between pretest knowledge of patients having cervical cancer on side effects of radiation therapy and it's relieving recourses with selected factors. The chi-square was tested to find the association with selected factors such as 'duration of illness', the computed chi squire value was 0.3 {χ_{21}(3.841)} and in 'course of treatment', the computed chi squire value was 5.77 {χ_{22}(5.991)} at 0.05 level of significance. So, the tabulated data indicated that there was no significant association between knowledge with selected factors at 0.05 level of significance.[13] The findings were in congruence with the findings of the present study.

Implications of the study

The findings of the study have implications in nursing practices, nursing education, nursing administration and nursing research

Nursing Practices: The findings of the study will help the midwife especially in concern with gynaecological department in following aspects:

- To evaluate the knowledge of the women regarding cancer cervix.
- It will help to educate and well communicate the information to another high-risk group.
- To encourage women so that they can approach to medical facilities available for prevention of cancer cervix.
- To make the women aware that cervical cancer can be prevented, vaccine is available which prevent infection of Human Papillomavirus which is responsible for cancer cervix.

Nursing Education: The present study implies that information booklet can be effective to educate women about cervical cancer which will help in awareness adapting the preventive measures like routine gynaecological checkup or pap smear test. It can detect the cervical cancer in early stage and prevent further complications.

Nursing Administration: The results of this study will help administrator in arranging camps for screening of cervical cancer in a high-risk group area. This study will help in conducting health educational and awareness programmes on a large scale in the community.

Nursing Research: Findings of this study will provide the baseline data about cervical cancer, risk factors, signs & symptoms, diagnostic tests and strategies adopted to educate people about cancer cause, preventive measures.

Limitations: The study findings could not be generalized because of the following reasons.

Small sample size and very restricted set up, no control group hence exposing the findings to possible bias and No attempt was made to do the follow up measure in respect of retention of gain in knowledge.

Recommendation: A similar study may be repeated different settings and different target group with large samples and a control group for more generalization of findings.

Conclusion

The following conclusion were drawn from the study findings it can be concluded that the information Booklet on prevention and early detection of cervical cancer was effective for increasing the knowledge This concluded that they were motivated to gain such knowledge which will be beneficial for the individual family, community and as a whole for society. From the acceptability of the information booklet, it can be concluded that it was an acceptable method of improving the knowledge of female school teacher by information booklet.

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