

A Study to Assess the Effectiveness of Intervention Awareness Programme On Attitude Regarding Ovarian Cancer and Its Prevention Among Degree Students in Selected Degree Colleges, Jodhpur

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Abstract

Introduction: Ovarian cancer remains one of the most serious gynecological malignancies and poses a significant challenge to women's health globally. Often diagnosed at an advanced stage due to vague and nonspecific symptoms like bloating, abdominal discomfort, and altered bowel habits, the disease frequently goes unrecognized in its early phases. Globally, ovarian cancer ranks as the seventh most common cancer in women and is the most fatal among reproductive system cancers.

Materials & Methods: This study was conducted at GD memorial group of college, Jodhpur, Rajasthan, to evaluate the effectiveness of an intervention awareness programme on the attitude of degree students regarding ovarian cancer and its prevention. A pre-experimental one-group pre-test post-test design was used, involving 60 degree students selected through non-probability convenient sampling.

Results: A structured Likert scale was administered to assess attitude levels before and after a intervention awareness programme. Results showed a significant improvement in post-test scores, with favorable attitudes increasing from 25% to 90%. The mean score rose from 35.61 to 63.91, and the paired t-value (15.318) at $p < 0.001$ confirmed the effectiveness of the intervention. The intervention programme enhanced understanding through engaging, visual content. The findings suggest that multimedia teaching tools are effective in improving degree students' attitudes and can be integrated into education for cancer prevention awareness.

Conclusions: The findings strongly support the use of innovative teaching strategies such as intervention programme in nursing education to foster a more positive attitude toward cancer awareness and prevention.

Keywords: Experimental study, intervention awareness programme, attitude, ovarian cancer, degree students

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Introduction

Ovarian cancer continues to be one of the most serious gynecological cancers, presenting a major global health concern in women's health. One of its greatest clinical challenges is late detection, largely due to its subtle and non-specific symptoms, such as abdominal discomfort, bloating, and irregular bowel patterns. These vague symptoms often resemble those of less severe illnesses, causing delays in diagnosis and medical

intervention. Consequently, the disease is frequently identified at an advanced stage, reducing the chances of successful treatment. Globally, ovarian cancer is ranked as the seventh most frequently diagnosed cancer among women and is the leading cause of death from gynecologic malignancies [1]. Multiple factors contribute to the risk of developing ovarian cancer, including genetic predisposition and environmental influences. Having a close family member—especially a first-degree relative—with ovarian cancer greatly increases risk. Specific inherited genetic mutations, notably BRCA1 and BRCA2, also elevate susceptibility. Other significant factors include advanced age, with the majority of cases occurring in postmenopausal women, as well as reproductive history, such as age at menarche and menopause, number of pregnancies, and hormone therapy use. Research indicates that women who have used oral contraceptives have a lower risk of developing ovarian cancer; suggesting hormonal pathways play a protective role [2]. Diagnosing ovarian cancer often involves a multifaceted approach, which includes physical assessments, imaging techniques like ultrasounds and CT scans, and blood tests for tumor markers such as CA-125. However, the CA-125 marker lacks specificity, as its levels may rise in various benign conditions, complicating early diagnosis. Therefore, precise diagnosis typically requires surgical procedures to obtain tissue samples for histological analysis. Surgical staging is essential in guiding treatment plans and assessing the extent of disease progression [3]. Standard treatment for ovarian cancer involves a combination of surgery and chemotherapy. Surgical intervention may range from removing a single ovary to performing a total hysterectomy, often accompanied by the removal of pelvic lymph nodes and other surrounding tissues. Chemotherapy is commonly administered following surgery to eliminate residual cancerous cells. In more advanced or recurrent cases, targeted therapies and immunotherapies are emerging as promising options, offering better patient-specific approaches. Treatment plans are tailored based on disease stage, patient health status, and fertility considerations [4]. Despite advancements in medical therapies, the overall survival rate for ovarian cancer remains relatively low, primarily due to high recurrence rates and resistance to chemotherapy. Ongoing research is focused on unraveling the molecular and genetic mechanisms that drive ovarian cancer progression to develop more precise and effective targeted treatments. Raising public awareness about the symptoms and risks of ovarian cancer is essential, as early detection is closely linked with better outcomes. Additionally, enhancing screening protocols for high-risk groups may enable earlier diagnosis and improved survival rates [5].

Objectives:

01. To assess the existing level of attitude regarding ovarian cancer among degree students
02. To assess the post-test level of attitude regarding ovarian cancer among degree students
03. To assess the effectiveness of intervention awareness programme on level of attitude regarding ovarian cancer among degree students
04. To associate the pre-test level of attitude regarding ovarian cancer among degree students with their selected demographic variables.

Operational Definitions:

Assess: Refers to the process of systematically measuring and evaluating the attitude of degree students towards ovarian cancer and its prevention using a structured Likert scale before and after the intervention.

Effectiveness: Refers to the degree of positive change in the students' attitude scores towards ovarian cancer and its prevention after the administration of the intervention awareness programme, as measured through pre- and post-test comparison.

Intervention Awareness Programme: Refers to a structured, video-assisted teaching session designed to enhance attitude regarding ovarian cancer and its prevention among the study participants.

Attitude: Refers to the expressed opinions, beliefs, and willingness of degree students towards ovarian cancer awareness and prevention, measured through a validated Likert scale before and after the intervention.

Ovarian Cancer: Refers to a malignant condition affecting the ovaries, discussed in terms of its symptoms, risk factors, prevention, and importance of early detection, as taught during the awareness programme.

Degree students: Refers to students enrolled in the various degree courses in GD memorial group of college Colleges, Rajasthan, who participated in the study and were assessed for attitude changes.

Research hypotheses

H₁: There is a significant difference between the mean pre-test and post-test level of attitude regarding ovarian cancer among degree students.

H₂: There is a significant association between the pretest levels of attitude regarding ovarian cancer among degree students with their selected demographic variables.

Delimitations

1. The study is limited to degree students of GD memorial group of college, Rajasthan.
2. Only 60 students who were willing and available during data collection were included.
3. The study focuses only on attitude, not knowledge or practice.
4. The intervention was restricted to a single awareness intervention programme.
5. Data collection was limited to a specific time frame and setting.
6. Only self-reported responses through a Likert scale were used for assessment.

Materials & Methods: The present study adopted a quantitative research approach with a pre-experimental one-group pre-test and post-test design to evaluate the effectiveness of an educational programme on ovarian cancer. The independent variable was the educational intervention provided to the students, while the dependent variable was the attitude of degree students regarding ovarian cancer and its prevention. The study also considered several demographic variables, including age, religion, educational status, area of residence, marital status, type of family, monthly family income, previous information about ovarian cancer, family history of ovarian cancer. The study was conducted at the GD memorial group of college, Rajasthan, with the population comprising all degree students enrolled at the institute. The sample consisted of 60 degree students who met the inclusion criteria and participated in the intervention.

Inclusion Criteria:

1. Degree students enrolled in GD memorial group of college, Rajasthan.
2. Students who are willing to participate and provide informed consent.
3. Students who are present during both pre-test and post-test data collection.
4. Students who can understand and respond to the attitude scale in English.

Exclusion Criteria:

1. Students who have already received structured training or awareness sessions on ovarian cancer.
2. Students who are absent on the day of the intervention or during data collection.
3. Students unwilling to participate or who do not provide informed consent.

Sampling techniques: Non-Probability Purposive sampling technique was used.

Development and description of tool: The tool consists of the following sections

Section A: demographic variables such as age, religion, Family Income, Dietary pattern, Age at menarche, Family history of ovarian cancer Number of classes attended on ovarian cancer. Source of information.

Section B: This section consists of 3 point Likert scale to assess the attitude of degree students regarding ovarian cancer.

There were total 20 statements consisting 13 positive statements and 7 negative statements. Score for each positive item was 3, score for each neutral item was 2 score for negative each item was 1 and overall score was 60. The resulting scores was interpreted as follow :

1. Unfavorable attitude <50%

2. Neutral attitude 50-75%
3. Favorable attitude >75%

Results:

Section-1 Description of demographic variables of degree students.

Section-2: Assessment of pre-test level of attitude among degree students.

Section-3: Assessment of pre and post-test level of attitude among degree students.

Section-4: Effectiveness of educational programme on attitude regarding ovarian cancer among degree students.

Section-5 Association of attitude with demographic variables of degree students.

Section-1 Description of demographic variables

Table-1: Frequency and percentage distribution of degree students according to their demographic characteristics.

N=60

S.no.	Demographic characteristics	Categories	Frequency	Percentage
1.	Age in years	17-19 years	10	16.66
		20-21 years	34	56.66
		22-23 year	10	16.66
		>23 years	6	10.00
2.	Religion	Hindu	44	73.33
		Muslim	12	20.00
		Christian	4	6.66
3.	Family Income	<15000 Rs	6	10.00
		15001-20000 Rs	10	16.66
		20001-30000 Rs.	24	40.00
		> 30000 Rs.	20	33.33
4	Dietary pattern	Vegetarian	26	43.33
		Non vegetarian sent	34	56.66
5	Age at menarche	12 years	19	31.66
		13 years	17	28.33
		14 years or above	24	40.00
6	Family history of ovarian cancer	Yes	8	13.33
		No	52	86.66
7	Number of classes attended on ovarian cancer.	Not attended any class	28	46.66
		1 classes	14	23.33
		2 classes	8	13.33
		More than 2 classes	10	16.66
8	Source of information	Classes and Books	14	23.33
		Internet & Newspaper	36	60.00
		Short certificate course	10	16.66

Table -2: Frequency and percentage distribution of degree students according to pre test level of attitude regarding ovarian cancer.

S.No.	Level of attitude	Frequency	Percentage
1	Unfavorable attitude (<50%)	-	-
2	Moderately favorable attitude (50-75%)	45	75.00
3	Favorable attitude (>75%)	15	25.00
4	Over all	60	100

Table-3: Range, mean and SD of pre-test level of attitude regarding ovarian cancer among degree students.

S.no.	Attitude	Maxscore	Pre-test			
			Range	Mean	SD	Mean %
1.	Over all attitude	60	35-54	35.61	4.51	59.35

Table -4: Frequency and percentage distribution of degree students according to post test level of attitude regarding ovarian cancer.

S.No.	Level of attitude	Frequency	Percentage
1	Unfavorable attitude (<50%)	-	-
2	Moderately favorable attitude (50-75%)	6	10.00
3	Favorable attitude (>75%)	54	90.00
	Over all	60	100

Table-5: Range, mean and SD of post-test level of attitude regarding ovarian cancer among degree students

S.no.	Attitude	Max score	Posttest			
			Range	Mean	SD	Mean %
1.	Over all attitude	60	45-59	63.91	2.92	88.8

Table -6 : Frequency and percentage distribution of degree students according to pre and post test level of attitude regarding ovarian cancer.

S.No.	Level of attitude	Pre test		Posttest	
		Frequency	Percentage	Frequency	Percentage
1	Unfavorable attitude (<50%)	-	-	-	-
2	Moderately favorable attitude (50-75%)	45	75.00	6	10.00
3	Favorable attitude (>75%)	15	25.00	54	90.00
4	Over all	60	100	60	100

Table-7: Range, mean and SD of pre and post test level of attitude regarding ovarian cancer among degree students

S.no.	Scores	Maxscore	Attitude			
			Range	Mean	SD	Mean %
1.	Pre test	60	35-54	35.61	4.51	59.35
2	Post test	60	45-59	63.91	2.92	88.8

Table -8: Mean difference of pre and post test level of attitude regarding ovarian cancer among degree students

Sl.no.	Variable	Max score	Pre and post practice difference			Paired t value	P-value
			Mean difference	SD of difference	% of increase		
1.	Attitude	60	9.28	4.69	29.45%	15.318*	P<0.001

Nursing Implications

Nursing Practice:

1. Nurses are vital members of the healthcare team and play a key role in health education, prevention, and early detection of diseases like ovarian cancer.
2. The study findings can help nurses recognize the importance of promoting positive attitudes toward cancer awareness and prevention among degree students and the wider community.
3. The results support integrating attitude-focused interventions into routine nursing care and health promotion activities to foster a more proactive approach in clinical practice.

Nursing Education:

1. Student nurses should be provided with structured education on ovarian cancer, including its symptoms, risk factors, and preventive measures to enhance clinical preparedness.
2. Faculty and students should be encouraged to stay updated with current research, innovations, and advancements in gynecological oncology.
3. Nursing institutions should promote participation in specialized seminars, workshops, and short courses on ovarian cancer.
4. Ovarian cancer awareness should be included as part of continuing nursing education programmes to ensure ongoing learning and professional development.

Nursing Administration:

1. Nurse administrators should ensure that students have access to educational interventions and awareness programmes on critical health issues like ovarian cancer.
2. Leadership should support implementation of effective teaching strategies, such as video-assisted modules, to enhance student engagement.
3. Policies and protocols should be established in collaboration with multidisciplinary teams to standardize cancer education within nursing institutions.

Nursing Research:

1. There is a strong need for further research on attitude-based interventions to identify effective strategies for improving cancer awareness among degree students.
2. This study provides a valuable reference for future researchers to explore innovative educational methods and their impact on nursing education and public health outcomes.

Conclusions: The present study aimed to assess the effectiveness of an intervention awareness programme using a video-assisted teaching module on the attitude of degree students regarding ovarian cancer and its

prevention at degree college, Rajasthan. The findings revealed a significant improvement in the post-test attitude scores compared to the pre-test, indicating the success of the intervention. Before the programme, 75% of students exhibited a moderately favorable attitude and only 25% showed a favorable attitude. Post-intervention, 90% of the students developed a favorable attitude, with only 10% remaining in the moderately favourable category. The mean pre-test score was 35.61 (59.35%) and post-test was 63.91 (88.8%), showing a marked increase. The mean difference was 9.28, and the paired t-value of 15.318 at $p < 0.001$ level confirmed the statistical significance. These results demonstrate that the structured video module effectively enhanced the students' awareness and attitude towards ovarian cancer and its prevention. The interactive and visual nature of the content enabled better understanding and engagement. Therefore, incorporating such multimedia-based educational tools in nursing education can significantly contribute to building positive attitudes and preparing future nurses to take active roles in cancer awareness, early detection, and preventive health care.

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