

Research Article



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EVALUATION OF INDIAN WOMEN OVARIAN CANCER SCREENING HABITS AND AWARENESS

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ABSTRACT

Background: Due to the high mortality risk and lack of effective screening techniques, ovarian cancer, or OC, poses a serious danger to women's health everywhere, especially in India. Educating women about ovarian cancer symptoms and risk factors is essential for better prognosis and early identification.

Aim: The objective is to evaluate Indian women's ovarian cancer screening habits and awareness.

Methods: The study evaluated women over 20 who attended the institute's outpatient department throughout the specified study period. A pre-made, structured, validated, and self-administered questionnaire was used to evaluate each female's screening and awareness of ovarian cancer. The collected data were evaluated statistically.

Results: According to the study's findings, Indian women who took part in the study had a poor grasp of the signs and risk factors of ovarian cancer. Additionally, nothing was known about ovarian cancer screening. Nonetheless, there was a noteworthy correlation between the participants' work and their knowledge of the screening pattern.

Conclusion: Indian women have a lack of knowledge about ovarian cancer, including its symptoms, screening patterns, and risk factors. This calls for a community-level awareness program to raise awareness and knowledge among Indian women about ovarian cancer screening.

Keywords: Awareness, Determinants, screening, Ovarian cancer

INTRODUCTION

Ovarian cancer, or OC, is a worldwide health issue that affects women everywhere and places a significant strain on the medical system, including in India. Ovarian cancer is the seventh most frequent malignant illness and the eighth most common cause of death. Ovarian cancer is the third most frequent cancer in gynaecology among Indian women, behind breast and cervical cancer.¹ Ovarian cancer incidence ranges from 5 to 8 cases per lakh females, with a marked rise in risk starting at age 35 and a peak incidence between the ages of 54 and 64. Ovarian cancer has the worst prognosis of any gynaecological cancer at startling rates, and it is typically identified at an advanced stage of III or IV according to the International Federation of Gynaecology and Obstetrics staging system.²

Two major genes that are now known to be linked to the risk of developing ovarian and breast cancer are BRCA1 and BRCA2. The lifetime incidence of ovarian cancer in patients with maturation in one of these genes ranges from 15% to 40%. Three key components of the fight against ovarian cancer are the development of reliable screening techniques and the spread of information about the disease's risk factors.³ Early detection and timely care of ovarian cancer can be facilitated by empowering women with knowledge about the symptoms and risk factors of the disease. It should be

mentioned that there is a dearth of research on ovarian cancer in India, which calls for a deliberate strategy to increase knowledge and public awareness in order to protect against this fatal and silent illness.⁴

The present study was aimed to assess the screening practices and awareness for Ovarian cancer in Indian females.

MATERIALS AND METHODS

The purpose of the current cross-sectional descriptive study was to evaluate Indian women's awareness and screening habits for ovarian cancer. The research participants came from the Institute's Department of Obstetrics and Gynaecology. Before participating in the study, all participants and school officials gave their verbal and written informed consent.

The research evaluated women over 20 who visited the Institute's outpatient department during the designated study period. Subjects between the ages of 20 and 60 who were willing to engage in the study met the inclusion criteria. Subjects under the age of twenty and those who did not provide their agreement to participate in the study were excluded from the study.

52 of the 720 participants evaluated had incomplete questionnaires. 668 completed questionnaires were included in the final sample size after taking this into account. The study collected information on ovarian cancer awareness using a validated, pretested, structured, and self-administered questionnaire. CAM (cancer awareness measure) was the source of the questionnaire. It relied on generic CAM created by Oxford University, University College London, and Cancer Research UK.

The research's questionnaire was broken up into five sections. The first section asked about the study participants' age, gender, marital status, family structure, employment, and level of education. The second section included 14 questions about cancer awareness, to which respondents could respond "Don't know," "No," or "Yes." The final section asked questions about ovarian cancer risk factors.

The fourth section included questions on ovarian cancer symptoms, while the fifth section included questions about ovarian cancer screening and early detection. Answers to every question were either "Don't know," "No," or "Yes."

According to the scoring criteria for screening patterns and symptoms, each right response received a score of one, while every wrong response received a score of zero. Scores were assigned as follows for risk factors: "0," "Disagree," "1," "Neutral," "3," and "Strongly Agree." The sum of these scores was converted to a percentage of the total. A score of at least 70% indicated strong knowledge, whereas a score of less than 50% indicated weak knowledge. For scores between 50 and 69%, enough knowledge was taken into account.

ANOVA, the chi-square test, the student's t-test, Fisher's exact test, the Mann Whitney U test, and SPSS (Statistical Package for the Social Sciences) software version 24.0 (IBM Corp., Armonk, NY, USA) were used to statistically evaluate the collected data. A p-value of less than 0.05 was regarded as the significance level.

RESULTS

The goal of the current cross-sectional descriptive study was to evaluate Indian women's awareness and screening habits for ovarian cancer. The current study evaluated women who attended the Institute's outpatient department throughout the designated study period and were older than 20. According to the study's findings, students made up the majority of the subjects—47.6%—who actively participated in the activity whereas, those that were teachers or other professional constituted 39% and 13.5% subjects respectively (Table 1).

The majority of respondents, 86%, were found to be aware of ovarian carcinoma, indicating that research participants had some understanding of the disease. Ovarian cancer is the most frequent malignancy among Indian women, according to 47% of respondents, whereas 37.7% of respondents recognized it as a silent killer illness (Table 2).

According to the study's findings, 6.9% of the participants knew a lot about the risk factors for ovarian cancer. Fifty percent of the research participants showed fair awareness, while forty-three percent had poor awareness. Similar to this, 23% of participants had a high level of awareness of ovarian cancer symptoms. Fair awareness was seen in 18.9% of the survey participants, while low awareness was observed in 58%.

Additionally, 17.4% of participants were well-versed on ovarian cancer screening and early detection. Sixty-three percent of research participants had fair knowledge, whereas twenty percent had poor understanding (Table 3).

With a p-value of 0.463, it was also observed that there was no significant correlation between occupation and knowledge of ovarian cancer risk factors. Sixty-two percent of the study's student participants had fair knowledge, while 6.9 percent had high awareness. Occupation and knowledge of OC screening patterns were shown to be significantly correlated ($p=0.03$) (Table 4).

DISCUSSION

The current study evaluated women who attended the Institute's outpatient department throughout the designated study period and were older than 20.

According to the study's findings, 47.6% of the participants were actively engaged in the activity and were mostly students, while 39% and 13.5% of the participants were instructors or other professionals, respectively. These findings were similar to those of earlier studies by Wooster R et al. (2003) and Elmahdi NM et al. (2017), in which the authors evaluated ovarian cancer patients and provided demographic information similar to that of the current study. According to the research's findings, the majority of respondents—86%—were aware of ovarian carcinoma, indicating that survey participants had some understanding of the disease. Ovarian cancer is the most frequent malignancy among Indian women, according to 47% of respondents, whereas 37.7% of respondents recognized it as a silent killer illness.

These findings aligned with those of Nandhini UA et al. in 2022 and Dabhadkar SV et al. in 2021, where the authors' reports of ovarian cancer awareness were similar to the current study's findings.

It was found that 6.9% of research participants knew a lot about the risk factors for ovarian cancer. Fifty percent of the research participants showed fair awareness, while forty-three percent had poor awareness. Similar to this, 23% of participants had a high level of awareness of ovarian cancer symptoms. Fair awareness was seen in 18.9% of the survey participants, while low awareness was observed in 58%. Additionally, 17.4% of participants were well-versed on ovarian cancer screening and early detection.

Twenty percent of research participants had poor understanding, while sixty-three percent had fair knowledge. The results of Okunowo AA et al. (2018) and Al-naggar et al. (2013), whose authors similarly found awareness and understanding of OC symptoms, risk factors, and screening patterns similar to the current study, were consistent with these findings.

With a p-value of 0.463, the study's findings likewise demonstrated no significant correlation between occupation and knowledge of ovarian cancer risk factors. Only 6.9% of the research participants had strong awareness, whereas 62% of the student participants had fair awareness.

Occupation and knowledge of OC screening patterns were shown to be significantly correlated ($p=0.03$). These findings were consistent with those of Keng SL et al. (2015) and Maryam B et al. (2022), who found no significant correlation between occupation and knowledge of ovarian cancer risk factors.

CONCLUSION

Despite its limitations, the current study finds that Indian women have limited knowledge about ovarian cancer, including its symptoms, screening patterns, and risk factors. This calls for a community-level awareness program to raise awareness and knowledge among Indian women about ovarian cancer screening.

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S. No	Demographics	Number (n)	Percentage (%)
1.	Age range (years)		
a)	20-29	332	49.7
b)	30-39	132	19.8
c)	40-49	136	20.4
d)	50 or above	68	10.2
2.	Family type		
a)	Joint	260	64.35
b)	Nuclear	204	35.64
3.	Marital status		
a)	Widowed	6	0.9
b)	Married	334	50
c)	Single	328	49.1
4.	Education		
a)	Graduation	226	33.8
b)	Postgraduation	360	53.9
c)	PhD	82	12.3
5.	Occupation		
a)	Non-teaching	90	13.5
b)	Teaching	260	38.9
c)	Student	318	47.6

Table 1: Demographic data in study participants

S. No	OC awareness	Number (n)	Percentage (%)
1.	Heard about OC		
a)	Yes	574	85.9
b)	No	94	14.1
2.	Aware of OC		
a)	Yes	488	73
b)	No	180	27
3.	Know that OC is known as silent killer		
a)	Yes	252	37.7
b)	No	416	59.3
4.	OC is most common in India		
a)	Yes	312	46.7
b)	No	356	53.3
5.	Highest death rate is seen with OC in India		
a)	Yes	228	34.1
b)	No	266	65.9

Table 2: Awareness about ovarian cancer in study subjects

S. No	Characteristics	Good awareness		Fair awareness		Poor awareness	
		n	%	n	%	n	%
1.	Awareness concerning early detection and screening of OC	116	17.4	418	62.6	134	20
2.	Awareness of OC symptoms	154	23	126	18.9	388	58.1
3.	Awareness of OC risk factors	46	6.9	334	50	288	43.1

Table 3: Awareness and knowledge for OC symptoms, risk factors, and screening patterns in study subjects

S. No	Occupation variable	Good awareness		Fair awareness		Poor awareness		p-value
		n	%	n	%	n	%	
1.	Screenung patterns							
a)	Non-teaching	4	4.4	36	40	50	55.6	0.463
b)	Teaching	20	7.7	134	51.5	106	40.8	
c)	Student	22	6.9	166	62.2	130	40.9	
2.	Symptoms							
a)	Non-teaching	18	20	4	4.4	68	75.6	0.105
b)	Teaching	52	20	38	14.6	170	65.4	
c)	Student	84	26.4	54	17	180	56.6	
3.	Risk factors							
a)	Non-teaching	4	4.4	36	40	50	55.6	0.463
b)	Teaching	20	7.7	134	51.5	106	40.8	
c)	Student	22	6.9	166	62.2	130	40.9	

Table 4: Association of awareness of screening, symptoms, and risk factors to occupation in study subjects