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Research Paper

A study on breast cancer knowledge and awareness among rural women in Kashmir region, Jammu and Kashmir

Shayesta Rahi[1], Qamur un Nisa[2], Sabreena Bhat[3], Sabreena Nazir[4], Bilal Ahmad Bhat[5*]
[1]Department of Obstetrics and Gynaecology, Lalla Ded Hospital, GMC Srinagar, J&K, India.
[2]Institute of Home Science, University of Kashmir, Srinagar, 190006, J&K, India.
[3]Division of Aquaculture, Faculty of Fisheries, Rangil Ganderbal, SKUAST-K, J&K, India.
[4]M.A. Education, Directorate of Distance Education, University of Kashmir, Hazratbal Srinagar, J&K, India.
[5*]Division of Social Sciences, Faculty of Fisheries, Rangil Ganderbal, SKUAST-Kashmir, J&K, India.

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ABSTRACT

Background: Esophageal cancer has quite a high incidence in Kashmir among both sexes, with a male to female ratio about 2:1, after that comes lung and stomach cancer in men while in women breast and ovarian cancer seems to follow. Breast cancer still is the most frequently diagnosed cancer among women worldwide, and it accounts for around 15% of cancer related deaths. In India, it ranks as the second most common cancer among women, and the incidence is said to be about twice as high in rural than in urban areas. Since health literacy is often low in rural regions , checking what people already know about breast cancer risk factors becomes really important for early identification and prevention.
Objective: To evaluate the current awareness level on breast cancer and its risk factors among rural women in the Kashmir valley.
Methods: We carried out a cross sectional study involving 400 rural women who were chosen randomly, after taking informed consent. The information was obtained with help of a properly developed validated questionnaire, it covered sociodemographic background and knowledge about breast cancer risk factors. After collecting, the data were analyzed using suitable statistical methods.
Results: Most of the respondents were from the 25–34 years age band. Also a notable share of participants did not show enough awareness about several major breast cancer risk factors, such as family history, getting older, nulliparity, obesity, smoking, and unhealthy dietary habits.
Conclusion: Rural women in the Kashmir valley show pretty clear gaps in awareness about breast cancer risk factors, sort of like they are missing key points here and there. More targeted health education and community based awareness initiatives are needed, not just general information, so knowledge levels can rise, early detection practices get more attention, and in the end the burden of breast cancer among women in this region can be reduced.

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Corresponding Author:
Bilal Ahmad Bhat
Division of Social Sciences, Faculty of Fisheries, Rangil Ganderbal, SKUAST-Kashmir, J&K, India.
Email: bhat_bilal@rediffmail.com

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1. INTRODUCTION

Worldwide, in women the most familiar diagnosed type of cancer is breast cancer and every year approximately 2.1 million new breast cancer cases are diagnosed. It was found that breast cancer contributes to around 15% mortality [1] and it does not cause discomfort and initially is not painful. Usually, it gets presented as a painless lump for which detection at earlier stages is very important by launching intensive screening campaigns [2]. Breast cancer among Indian women of all cancer cases accounts for 19% to 34% [3] and it was reported that the incidence of breast cancer among women is twice in rural areas as compared to urban areas [4]. In India, incidence of breast cancer varies as the highest breast cancer rates in women being in north-eastern region and metropolitan cities of India like Delhi and Mumbai. This difference is mainly due to demographic, reproductive, anthropometric and lifestyle factors [5]. In women aged below 50 years, it is known as early-onset breast cancer and is very aggressive with poor prognosis while late-onset breast cancer is caused in women aged 70 years and above [1]. Cancer also known by various other terms such as malignant tumours and neoplasms is a standard term for a wide group of diseases that can affect any part of human body. It is an abnormal rapid creation of cell growth beyond their usual boundaries, which is contagious and invade adjoining body parts via process known as metastasis, a primary cause of death. In 2020, cancer accounts for nearly 10 million deaths and one death in six deaths as per WHO and is leading cause of death worldwide. Globally, breast cancer, lung cancer, colon cancer, and rectum cancer and prostate cancer are most commonly founded cancers. Further, deaths caused by cancer are one-third due to tobacco usage, alcohol usage, high body mass index, low intake of fruits and vegetables and physical activity avoidance. Various infections that are cancer-causing are human papillomavirus (HPV) and hepatitis which constitutes around 30% of cancer cases in developing countries. It has been noticed that if cancer is detected early and treated efficiently, it can be cured. In 2017, a resolution Cancer prevention and control that urges Government and WHO was passed by World Health Assembly (WHA70.12) in order to speed up action to attain goals as per NCDs 2013-2020 and the 2030 UN Agenda. As India is a developing country, around 1.4 million people in each year are diagnosed with cancer and a total of 2.25 million cases are prevailing currently and mortality in country from cancer is as high as 1.2 million people.

Foremost type of cancer among females is cervical and breast cancer and among males most common type of cancers are head, neck and lung cancers in India. It has been found that lack of awareness, poverty, illiteracy leads to higher or metastatic stage of cancer. Similar scenario is present in Indian controlled Kashmir, studies conducted during 2015 to 2018 at Regional Cancer Centre of Government Medical College Srinagar, Kashmir revealed that 1371 cancer cases were found in these years that gradually with time increase. In Kashmir, stomach cancer is most common type of cancer among men and in women, breast cancer is most prevalent cancer. Further, the cancer patients in Kashmir are rising in number every passing year. In the world development India is playing a key role and it is very important that it plays its crucial role in controlling the fast spread of this cancer. To overcome this deadly disease, World Health Organization (WHO) guided to raise awareness about causes and symptoms of breast cancer as early detection can save patient. We come across in literature, a number of studies on breast cancer awareness and factors responsible for breast cancer in India [6], [7], [8] and as there is a scarcity of literature regarding the assessment ofawareness and knowledge about breast cancer in Kashmir, so this study was carried out

to examine the existing levels ofcancer awareness among rural women of Kashmir in order to plan effective health programs,early detection of breast cancer and effective treatment.

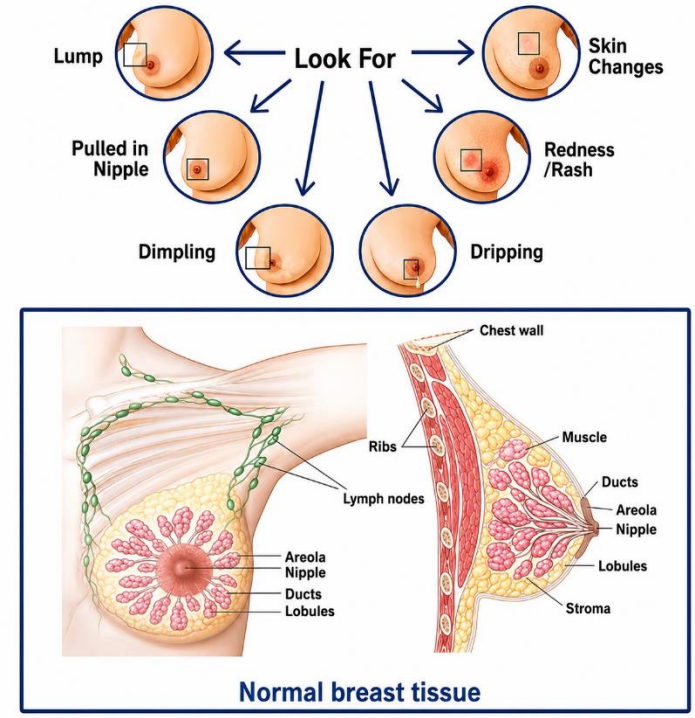


Figure 1. Breast Cancer Signs, Symptoms and Normal Breast Tissue

2. METHODOLOGY

The present cross-sectional study was carried out during January 2021 to October 2022 among women residing in rural areas of Kashmir valley. A totalof 400 participants selected at random from rural areas of Kashmir wereinvolved in the survey. The size of sample was determined following Cochran [9]. A well-developed validated questionnaire based on earlier studies was used for the collection of data. The collected data from survey was analyzed and interpreted statistically using appropriate statistical techniques.

3. RESULTS AND DISCUSSION

The data presented in Table 1, revealed that majority of the respondents (81.0 %) were in the age group of 25-34 years, married (87.25 %) and literate (88.75 %).

Table 1. Sociodemographic Details of the Respondents under Study

Variable	Category	Frequency	Percentage (%)
Age	25-34	324	81.0
	35-44	59	14.75
	>45	17	4.25
Marital Status	Married	349	87.25
	Unmarried	22	5.5
	Widows	29	7.25
Educational Status	Illiterate	45	11.25
	Literate	355	88.75

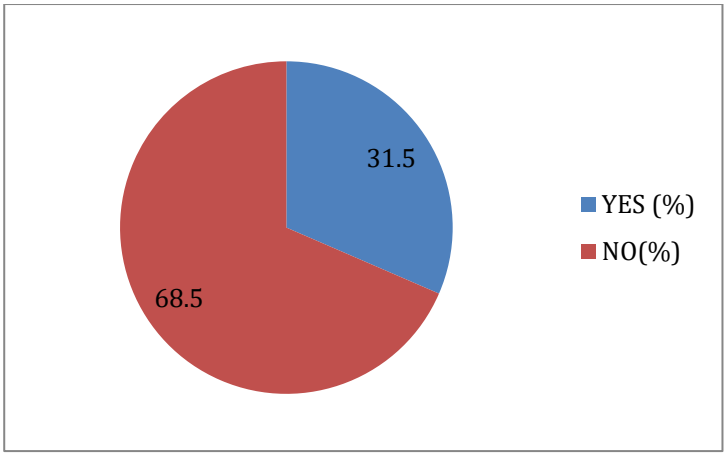


Figure 2. Heard any Relative or Friend Having Breast Cancer Symptoms or Problem

The data shown in Figure 2, revealed that majority (68.5%) of respondents reported that they have not heard about any relative or friend having breast cancer symptoms or problem.

The data shown in Table 2, revealed that in reply to statement 1, i.e., Do you know any symptoms of breast cancer, majority of respondents were not aware about the symptoms of breast cancer. It shows that respondents do not take this disease seriously. In reply to statement 2, i.e., Do you know someone who has breast cancer symptoms or cancer, 34.75% respondents reported yes. It means a god percentage of women is facing this problem. In reply to statement 3, i.e., Have you undergone any past breast screening, 28% responded reported that they never think of going for breast screening. In our research study, few participants who responded that they did self-examination of breasts but when asked todemonstrate, they were not up to the mark. It was found that majority of the rural women under study had not undergone any kind of breast screening which might be due to a lack of appropriate knowledge and education regarding examination of symptoms of breast cancer and this is found to be in agreement with the earlier studies [10]. It reveals that rural women generally do not take precautionary measures and at last stage generally consult doctors. This fact was revealed by respondents in group discussion.

Table 2. Awareness Regarding Breast Cancer among Rural Women of Kashmir Who Had Heard of Breast Cancer (N=400)

S.No.	Statement	Type	Frequency	Percentage (%)
1.	Do you know any symptoms of breast cancer?	Yes	113	28.25
		No	287	71.75
2.	Do you know someone who has breast cancer symptoms or cancer?	Family member	3	0.75
		Relative	13	3.25
		Neighbour	23	5.75
		Friend	39	9.75
		Friend of friends or relatives	59	14.75
		Not known	261	65.25
3.	Have you undergone any past breast screening?	Self	259	64.75
		Doctor or at facility	29	7.25
		No	112	28.00

The data shown in Table 3, revealed that in reply to statement 1, i.e., Do you know family history of breast cancer is risk of developing breast cancer among women, majority of respondents were not aware. In reply to statement 2, i.e., Do you know older age is risk of developing breast cancer, majority of respondents were not aware. In reply to statement 3, i.e., Do you know nulliparity is risk of developing breast cancer, majority of respondents were not aware. The respondents during discussion in majority

believed that nulliparity can result in breast cancer. In s study conducted in India by [11], it was found that nulliparity increases the danger of having breast cancer among women by three times. In reply to statement 4, i.e., Do you know obesity is risk of developing breast cancer, majority of respondents were not aware. In reply to statement 5, i.e., Do you know obesity is risk of developing breast cancer, majority of respondents were not aware. In reply to statement 6, i.e., Do you know smoking is risk of developing breast cancer, majority of respondents were not aware. In reply to statement 7, i.e., Do you know unhealthy diet is risk of developing breast cancer, majority of respondents were not aware. The womens in majority were not taking proper diet and health care of their breasts. It has been well documented that maintaining a healthy weight and eating well can reduce the risk of breast cancer by as much as two thirds. In order to increase the health of our breasts, we should try to incorporate some of these items into our weekly meal plan: Berries, contain antioxidant components that may aid in the prevention of breast cancer and foods like blueberries can help to slow the growth of tumor cells. Cruciferous veggies, Research indicates that cruciferous vegetables, such as broccoli, cauliflower, collard greens, and kale, can help stop the growth of tumours and, if cancer does arise, can stop it from spreading. Walnuts, these contain elements that may have anti-inflammatory effects so one should take these. It is clear that among rural women of Kashmir, there is lack of understanding about risk factors for breast cancer like family history, smoking, hormonal level and early menstruation. The results of present study are coincided in general with the earlier studies like [12], [13], [14], [11] in which authors report from different parts of India that women were not well aware about breast cancers and possessed least knowledge about this cancer.

Table 3. Awareness of Risk Factors for Breast Cancer among Rural of Kashmir Women (N=400)

S.No.	Statement	Type	Frequency	Percentage (%)
1.	Do you know family history of breast cancer is risk of developing breast cancer among women?	Yes	169	42.25
		No	231	57.75
2.	Do you know older age is risk of developing breast cancer?	Yes	22	5.5
		No	378	94.5
3.	Do you know nulliparity is risk of developing breast cancer?	Yes	61	15.25
		No	339	84.75
4.	Do you know obesity is risk of developing breast cancer?	Yes	126	31.5
		No	274	68.5
5.	Do you know hormonal level or use of hormonal tablets is risk of developing breast cancer?	Yes	43	10.75
		No	357	89.25
6.	Do you know smoking is risk of developing breast cancer?	Yes	107	26.75
		No	293	73.25
7.	Do you know unhealthy diet is risk of developing breast cancer?	Yes	31	7.75
		No	369	92.25

The data shown in Figure 3, revealed that majority (41.5%) of respondents reported that Lack of knowledge, follow by Shyness (27.5 %) and non-availability of female Oncologists (31.0%) were main factors responsible for cancer breast in Kashmir valley. In this study it was found that knowledge about risk factors among rural women understudy was very less. The results obtained in this study are in general coincides with the earlier studies [15].

The data shown in Figure 3, revealed that majority (47.5%) of respondents reported that BSE, follow by Lack of Proper Diet (43.5%) and Consultation of a doctor immediately if feeling breast pain (31.0%) are the main measures to be taken by women for breast cancer protection. The researchers observed that if patients are well aware and take proper treatment well on time many lives can be saved. The results of this study are coinciding in general with the earlier studies [15] who reported similar findings.

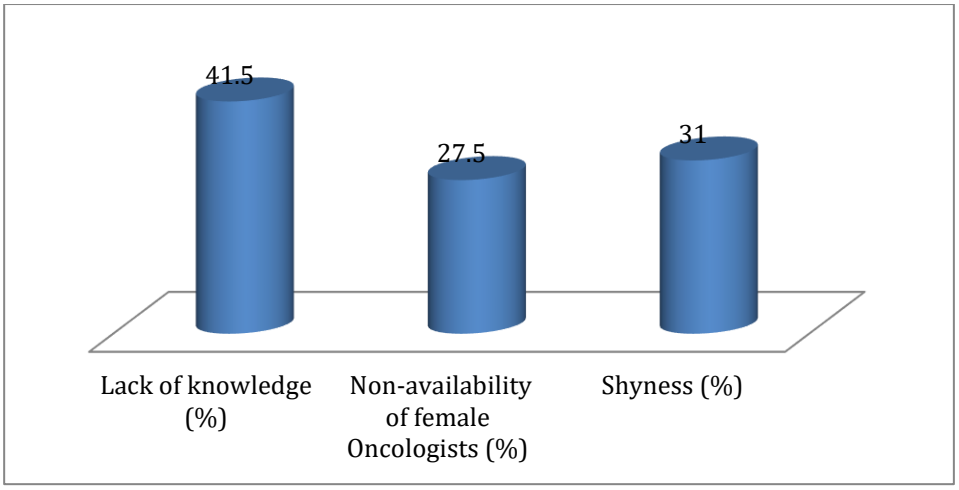


Figure 3. The Main Factors Responsible for Breast Cancer in Kashmir Valley

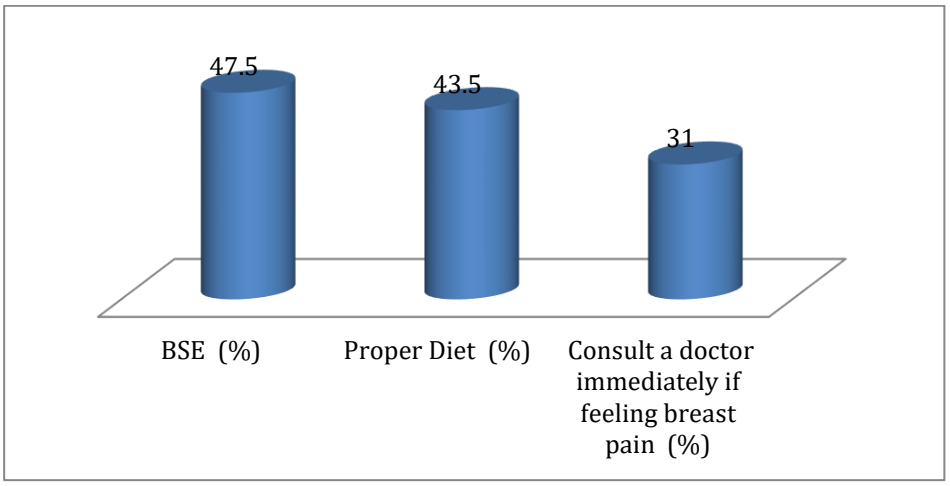


Figure 4. Measures to be taken by Women for Breast Cancer

The researchers during study found that patients registered in Sher-i-Kashmir Institute of Medical Sciences (SKIMS), premier tertiary care facility in Kashmir, rises markedly each year showing gradual increases in the number of breast cancer cases. In Kashmir valley about 30% women cancer patients are having breast cancer, far outpacing the occurrence of other cancers in both sexes. Similar findings were reported by [16], [17], [18]. The Breast cancer deaths among women of Kashmir might be due to lack of adequate information, Stigma, Shyness, Faith healers, Myths and Misinformation and Non-availability of female Oncologists. We can reduce deaths due to breast cancer among women by regressive awareness campaigns by government and nongovernmental organizations [19].

4. CONCLUSION

The morbidity and mortality are rising due to breast cancer very fast, particularly in rural India and Kashmir is not an exception. The rural Women of Kashmir have very littleknowledge regarding breast cancer disease. It was noticed that high breast cancer patients mortality rate of in Kashmir valley may be due to socio-cultural makeup as cultural beliefs act as barrier to early breast cancer detection and treatment which was reported earlier. The Breast cancer deaths among women might be due to lack of adequate information, Stigma, Shyness, Faith healers, Myths and Misinformation and Non-availability of female Oncologists. It need different kinds of treatment as it can begin and grow in different places and in different ways. It is noticed that types of cancer and certain treatment are related so it is believed that to specific foods cancers respond differently. In general foods play an important role in healthy diet, help to

stop the advancement of breast cancer among women.

Fruits and vegetables such as salad, foods rich in fiber, beans, legumes, dairy products, Soybean-based food are very important for breast health. The researchers found that it is very crucial to enlarge community involvement through social recruitment by involving qualified social health activists (ASHAs), anganwadi workers (AWW) and auxiliary nurse midwives (ANMs) for increasing the awareness and knowledge about the breast cancer risk factors and significance of early screening of Breast cancer. The researchers while discussion with respondents noticed that due to a strong grip of traditions, women in rural areas of Kashmir due to religious/cultural issues feel shy and hesitant of getting examined by a male doctor. There is a strong need of female oncologists as in Kashmir there is an increasing trend of females opting for pediatrics, gynecology or dermatology. To deal with breast cancer in Kashmir, the need of the hour is that more and more females excel in critical fields of oncology as Kashmir need female experts for treating breast tumors at proper time. This will definitely impact the survival years of the breast cancer patients. To reduce deaths due to breast cancer among women media, government and nongovernmental organizations should play their active role. In general, there are five treatment options for breast cancer depending on the stage of cancer, and most treatment commonly includes various combinations of surgery, radiation therapy, chemotherapy, and hormone therapy.

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Author Contributions Statement

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Shayesta Rahi	✓	✓	✓	✓		✓		✓	✓	✓	✓			
Qamur un Nisa		✓	✓	✓	✓		✓	✓	✓		✓			✓
Sabreena Bhat	✓	✓	✓	✓		✓	✓	✓				✓	✓	
Sabreena Nazir	✓	✓	✓			✓	✓	✓			✓			✓
Bilal Ahmad Bhat		✓	✓		✓				✓	✓				

C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

Conflict of Interest Statement

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Informed Consent

All participants were informed about the purpose of the study, and their voluntary consent was obtained prior to data collection.

Ethical Approval

Not Applicable.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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BIOGRAPHIES OF AUTHORS

	**Shayesta Rahi**, is affiliated with the Department of Obstetrics and Gynaecology at Lalla Ded Hospital, Government Medical College, Srinagar, Jammu and Kashmir, India. Her professional interests are centered on women's health, maternal and reproductive health, and clinical aspects of obstetrics and gynaecology. Through her academic and professional engagement, she contributes to healthcare practice and research focused on improving women's health outcomes and promoting evidence-based approaches to maternal care.
	**Qamur un Nisa,** is affiliated with the Institute of Home Science, University of Kashmir, Srinagar, Jammu and Kashmir, India. Her academic interests encompass home science and interdisciplinary areas related to family wellbeing, health, nutrition, and community development. She is engaged in academic and research activities that contribute to understanding social and household dimensions of wellbeing. Her work reflects an interdisciplinary approach toward addressing contemporary challenges related to families and communities.
	**Sabreena Bhat,** is affiliated with the Division of Aquaculture, Faculty of Fisheries, Rangil Ganderbal, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Jammu and Kashmir, India. Her academic interests are associated with aquaculture, fisheries, aquatic resource management, and sustainable development. She is involved in academic and research activities aimed at advancing knowledge in fisheries and aquaculture while contributing to sustainable utilization of aquatic resources and strengthening the fisheries sector.
	**Sabreena Nazir,** holds an M.A. in Education and is affiliated with the Directorate of Distance Education, University of Kashmir, Hazratbal, Srinagar, Jammu and Kashmir, India. Her academic interests focus on education, teaching and learning, educational development, and distance education. She is engaged in academic pursuits related to contemporary educational issues and contributes to research and scholarly activities aimed at understanding and improving educational practices, accessibility, and learning outcomes.
	**Bilal Ahmad Bhat**, is affiliated with the Division of Social Sciences, Faculty of Fisheries, Rangil Ganderbal, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Jammu and Kashmir, India. His academic interests include social sciences, rural development, community wellbeing, fisheries-related livelihoods, and socioeconomic issues. His interdisciplinary work explores social and developmental dimensions of communities and contributes to research aimed at understanding livelihood patterns, social change, and sustainable development. Email: bhat_bilal@rediffmail.com