



ORIGINAL RESEARCH PAPER

Community Medicine

AWARENESS, HEALTH-SEEKING BEHAVIOUR, AND BREAST CANCER SCREENING PRACTICES AMONG WOMEN AGED 30 YEARS AND ABOVE: A COMMUNITY-BASED CROSS-SECTIONAL STUDY IN GWALIOR DISTRICT

KEY WORDS: Breast cancer; Awareness; Health-seeking behaviour; Screening practices; Community-based study

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ABSTRACT

Background: In India, the most frequently diagnosed cancer in women is breast cancer. Awareness, health behaviour and adherence to screening practices influence the outcomes of screening. **Objectives:** To assess awareness, health-seeking behaviour and breast cancer screening practices among women aged 30 years and above in Gwalior district, and to examine socio-demographic factors associated with these outcomes. **Methods:** A community-based cross-sectional study was conducted in Gwalior district for three months on ≥ 30 yr women found in the urban field and rural field practice of a tertiary care centre. A total of 250 women were selected using systematic random sampling. Information regarding socio-demographic characteristics, knowledge on breast cancer, recognition of symptoms and risk factors, health-seeking behaviour for complaints regarding breasts and screening practices (BSE, CBE and mammography) were obtained by using a pretested, interviewer-administered questionnaire. The study utilized both descriptive statistics and chi-square test to analyze the collected data. **Results:** The mean age of participants was 42.8 ± 8.9 years; 61.2% resided in urban areas. Overall, 68.0% had heard of breast cancer, but only 32.0% could identify at least one symptom and 24.4% at least one risk factor. Regular breast self-examination was reported by 9.6%, clinical breast examination in the last year by 12.4%, and ever mammography by 7.2%. Women with education beyond secondary school had significantly higher awareness (82.0% vs. 56.0%; $p < 0.001$) and screening uptake (any screening 28.0% vs. 11.2%; $p = 0.002$). Fear, perceived absence of symptoms and lack of information were common barriers. **Conclusion:** The study findings indicated that the knowledge of breast cancer, about its symptoms and risk factors and acceptance of breast screening practices of women aged 30 years and above in a Gwalior district were poor. It is vital to enhance health education at the community level and incorporate breast cancer screening in primary care.

INTRODUCTION

Breast cancer is the most widespread cancer in Indian women. It is a significant public health challenge in India, with patients often presenting at a very advanced stage. The diagnosis of breast cancer in India is generally delayed, owing to lack of awareness and screening infographic [1]. Awareness and uptake of BSE, CBE and mammography could reduce impact [1]. However, most women in the community do not engage in the practices that could detect issues early. Proof shows that large proportion of women from central India have poor knowledge regarding breast cancer and its detection method. [2,3]. Research across Indian studies overwhelming shows a deficiency of knowledge and screening practices, particularly among rural and semi-urban women. Despite the fact that breast cancer is a word many women have heard of, only a minority adopt any screening. [4] However, there is a dearth of district level evidence from central India, particularly Gwalior, in women aged 30 years and above the priority group for opportunistic screening in primary care. To assess the awareness, health-seeking behaviour and breast cancer screening practices among women aged ≥ 30 years in Gwalior district, and the association of these with socio-demographic factors, the present community-based cross-sectional study was undertaken.

MATERIALS AND METHODS

Study Design and Setting

This community-based cross-sectional study was conducted over a three-month period in the urban and rural field practice areas of a tertiary care centre in Gwalior district, Madhya Pradesh, India. The study area comprised mixed socio-economic populations served by community and outreach clinics.

Study Population and Sampling

Women aged ≥ 30 years, residing in the selected areas for at least six months, formed the study population. Women with a prior diagnosis of breast cancer or currently on treatment for any malignancy were excluded. A total of 250 women were selected using systematic random sampling of households; one eligible woman per household was interviewed.

Data Collection

A pre-tested, semi-structured, interviewer-administered questionnaire (English, translated into Hindi) was used. It covered:

- Socio-demographic variables: age, residence (urban/rural), education, marital status, occupation and socio-economic status.
- Awareness: having heard of breast cancer (yes/no), knowledge of at least one symptom and at least one risk factor.
- Health-seeking behaviour: breast-related complaints in the last 12 months, provider consulted and reasons for not seeking care.
- Screening practices: ever and regular BSE, CBE in the last year and ever mammography.
- Barriers: fear, embarrassment, cost, distance, perceived absence of symptoms, and lack of information.

Data Management and Statistical Analysis

Data were entered into a spreadsheet and checked for completeness. Age was summarized using mean and standard deviation; categorical variables were expressed as frequencies and percentages. Chi-square tests were applied to assess associations between education and residence with awareness and screening uptake. A p -value < 0.05 was considered statistically significant.

Ethical Considerations

Institutional permission was obtained from the tertiary care centre. Informed verbal consent was obtained from all participants. Confidentiality was ensured, and women requiring further evaluation were referred to appropriate facilities.

RESULTS

A total of 250 women participated. The mean age was 42.8±8.9 years; 39.2% were aged 30–39 years, 32.8% were 40–49 years and 28.0% were ≥50 years. Urban residents accounted for 61.2% and rural residents for 38.8%. Most women were currently married (84.0%), and 46.0% had secondary-level education.

Table 1. Socio-demographic characteristics of women (n=250)

Characteristic	Category	n	%
Age group	30–39 years	98	39.2
	40–49 years	82	32.8
	≥50 years	70	28.0
Residence	Urban	153	61.2
	Rural	97	38.8
Education	No formal schooling	46	18.4
	Primary (1–5)	49	19.6
	Secondary (6–10)	115	46.0
	Above secondary (>10)	40	16
Marital status	Currently married	210	84.0
	Widowed/divorced	40	16.0
Occupation	Homemaker	178	71.2
	Employed (formal/informal)	72	28.8

Overall, 170 women (68.0%) had heard of breast cancer. Only 80 (32.0%) could mention at least one symptom, and 61 (24.4%) could identify at least one risk factor. Awareness that early detection improves outcome was present in 92 women (36.8%).

Table 2. Awareness of breast cancer among women (n=250)

Parameter	Yes n (%)	No n (%)
Heard of breast cancer	170 (68.0)	80 (32.0)
Knows ≥1 symptom	80 (32.0)	170 (68.0)
Knows ≥1 risk factor	61 (24.4)	189 (75.6)
Aware early detection improves outcome	92 (36.8)	158 (63.2)

Women with education above secondary level had significantly higher awareness (82.0% vs. 56.0%; $p<0.001$), and urban residents were more likely to have heard of breast cancer than rural residents (74.5% vs. 57.7%; $p=0.01$).

Table 3. Health-seeking behaviour for breast-related complaints (n=47)

Parameter	n	%
Sought any health care	31	66.0
Did not seek health care	16	34.0
Provider (among those who sought)		
– Government facility	13	41.9
– Private clinic/hospital	11	35.5
– Informal provider (RMP/others)	7	22.6

Reasons for not seeking care (n=16) included: complaint perceived “not serious” (50.0%), fear of diagnosis (31.3%) and lack of knowledge of where to go (18.7%).

Table 4. Breast cancer screening practices among women (n=250)

Screening practice	n	%
Ever practiced BSE	52	20.8
Regular BSE (≥ once per month)	24	9.6
CBE in last 12 months	31	12.4
Ever undergone mammography	18	7.2
Any screening (BSE/CBE/mammography)	64	25.6

Women with higher education reported more screening (28.0% vs. 11.2%; $p=0.002$). Awareness of at least one symptom was associated with BSE practice (42.5% vs. 12.9%; $p<0.001$). Common barriers for not undergoing screening included absence of symptoms (46.0%), fear of diagnosis (29.2%), embarrassment (14.8%) and financial or distance constraints (10.0%).

DISCUSSION

The current community-based study conducted in Gwalior district showed that awareness of breast cancer among women aged 30 years and above was moderate, but knowledge of symptoms and risk factors was poor. Further, uptake of screening practices was low. Pal and colleagues [1] made similar observations that many Indian women had heard about breast cancer but the practice of BSE, CBE and mammography was limited.

In a study conducted by Rao et al.[2] among women attending a tertiary care teaching hospital in central India, a high proportion of them were found to have inadequate awareness regarding breast cancer and breast cancer detection methods. Further, it was found that very few women in this region were practicing BSE. As reflected in our findings, where only one-third of the women could identify a symptom and less than one-fourth a risk factor. According to Akanksha et al.[4], there is a poor understanding of risk factors and warning signs affecting health-seeking behaviours.

With regards to screening, the regular BSE (9.6%) and mammography (7.2%) rates in the present study are similar to other Indian community-based reports, where BSE practice was reported between 3–15% and mammography uptake was minimal. Rao et al.[2] noted opportunistic clinical examination was used by most of the women and not self-screening. According to Janardhanan et al.[3], structured health education and capacity building of primary care providers in Mumbai led to a remarkable increase in BSE and CBE uptake.

Our study found that educated and urban people were more aware and screened. Pal et al.[2] found that more educated people were more informed and had a better attitude as per the gradient. In breast health promotion activities, priority should be given to low education, rural women.

These results have clinical implications, suggesting that existing primary care, maternal health and NCD programmes can incorporate breast cancer awareness and screening counselling to enhance community- based awareness and early detection. According to Janardhanan et al.[3], community-based IEC modules and provider training increased knowledge and examination. According to Pal et al.[1], to turn awareness into screening behaviour requires constant motivation and engagement.

CONCLUSION

Awareness of breast cancer, symptoms, and risk factors among women aged 30 years and above and screening practices (BSE, CBE, mammography) was found to be low in Gwalior district. Those who went to school and lived in cities had a better awareness and screening uptake. There is a need for a structured and culturally appropriate breast health education programme, integration of systematic screening into primary care, and reduction of socio-cultural and access barriers to enhance early detection and clinical outcomes.

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