

## Review Article

# Awareness about the carcinoma breast and the practices related to self- breast examination among women in developing countries

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## ABSTRACT

The aim of this review article was to evaluate the awareness of carcinoma breast and practices related to self- breast examination among women in developing countries. The study included the exploration of databases and journal websites, pub med, google scholar, and medline. The articles studied for the review were focused on english language articles from the year 2013 to 2019. This review focused on knowledge of breast cancer and its risk factors among women. Fifteen articles were reviewed on this topic from the year 2013 to 2019 in which general awareness level of breast cancer was probably better than the knowledge of risk factor, sign and symptoms. It also shows that although awareness and knowledge regarding Breast cancer was satisfactory but the knowledge of self-breast examination was low and practice of self-breast examination was least in developing countries. So, awareness programs related to breast cancer should be planned, to ensure early detection and timely treatment for better outcome.

**Keywords:** Breast cancer, Knowledge, Risk factor, Breast self examination, Practices, Developing countries

## INTRODUCTION

According to WHO, breast cancer is the most frequently found cancer in women, and millions of women are affected all over the world. On average annual estimation in 2012, there were 1.7 million cases of the 5,21,900 have resulted in death.<sup>1</sup> According to Globocan, breast cancer is 25% of all cancer and 15% of all cancer related deaths among women. Breast cancer in developing countries is half of total breast cancer cases in world and around 60% of breast cancer death occurs in developing countries. The incidence in developing countries is low but mortality is high due to late presentation, due to lack of awareness of knowledge of risk factors, signs and symptoms, and various screening method.<sup>2</sup>

Early detection and timely treatment will be effective in reducing mortality and morbidity and improving the long-term survival of breast cancer cases. For early detection,

there are screening methods like clinical breast examination (CBE), and mammography but the application of these methods is limited due to lack of infrastructure, trained manpower, and limited knowledge.<sup>3</sup>

So, breast self examination (BSE) is preferred in low-income countries as it is simple, easy, and cost-effective for early detection of lump<sup>4</sup>.

American cancer society (ACS) recommends BSE practice and education for women  $\geq 20$  years but it does not mention BSE as a tool to increase survival of breast cancer.

It involves inspection and palpation of the breast by the woman herself for any lumps, texture, size, and shape. It is done every month 7 days after menstruation. If women have attained menopause, they should do BSE on the same day every month.

BSE through simple and quick but the practice is low and varies in different countries, in one of the studies by Philip et al done in England, only 54% of women were practicing BSE. In Nigeria, about 19% to 43% 6 women and in India 0 to 52% 7 women practice BSE.

Many reasons were cited for not practicing BSE like lack of confidence and time, fear of detection of a lump, and embarrassment of doing it. To focus more on practices related to BSE which can be acceptable and achievable in developing countries this review article included various studies from different regions of developing countries emphasizing knowledge of risk factors, sign, symptoms, screening method, and practices related to self-breast examination.

## DISCUSSION

In this review article we have assessed 15 articles discussing about knowledge of carcinoma breast its risk factors, sign and symptoms and practices related to breast self-Examination among women in developing countries. In one of the studies done in Indonesia, knowledge of risk factors was low but attitude and practices were better in an urban area.

In one of the studies done in Akatshi South district of Volta region of Ghana 88.3% of the respondents were aware of breast cancer, almost 64.9% of the respondents had sufficient knowledge of breast cancer, and 37.6% practice BSE. Around 50% of the respondents did not know how to perform BSE.<sup>9</sup>

Another study carried out in Wardha in India, most of the females believed that they don't have breast cancer even before screening test.<sup>10</sup> In the study done on IT professionals in Silicon Valley in India findings showed knowledge and attitude were not correlated, attitude and practice were not correlated, but knowledge and practice were extremely correlated.<sup>11</sup> In of the study conducted in Delhi, outline percentage of women who knew known risk factors of breast cancer was maximum for family history of breast cancer 59.5%. Around 41.4% of participants had done BSE atleast once a month.<sup>12</sup>

In the study done in Cameroon shows around 88.1% had heard about Breast Cancer. Around 21.4% had sufficient knowledge of its risk factors, signs, and symptoms. Some 47% had heard about BSE out of them, some 38.5% had ever practiced BSE.<sup>13</sup>

In one of the studies done in Bengaluru, India most of them were aware of breast carcinoma. Around 58% had knowledge of at least one of the symptoms and at least one of the risk factors for breast carcinoma. Almost 18% of women knew about BSE and around 107 women practice it.<sup>14</sup> In one of the studies done in Mysuru in India, 99% of women were aware of breast cancer. Some, 63% were aware of breast self-examination. Around 66% had practiced BSE at least once.<sup>15</sup> In the study done in the Gurdaspur district of Punjab shows that more than 80% of women had heard about breast cancer.

Around 70% of women had knowledge about symptoms, more than half of them had heard about the practice of breast self-examination, while only 8.9% women's were practicing it.<sup>16</sup> In the study done in Ibadan, Nigeria, majority of respondents around 70.8% did not know how to perform BSE.

Almost 61.7% of women believed that BSE is a method of screening for breast cancer.<sup>17</sup> In the study conducted in Pokhara valley of Nepal showed poor awareness of signs and symptoms.<sup>18</sup> In one of the study done in Gurgaon in India showed diverse levels of awareness on risk factors.<sup>19</sup> In the study done in Nigeria showed that knowledge and practice for BSE were poor.<sup>20</sup>

Another study done among peripheral health workers in Shimla, India, which showed that knowledge was higher among males as compared to females. Around 43.3% of the participants had very good knowledge about risk factors.<sup>21</sup> One of the study done in Nigeria summarizes that 56.8% women had poor knowledge of breast cancer, almost 75.6% had poor knowledge of BSE. Just about 10.1% of respondents had ever practiced BSE. Knowledge of BSE was significantly associated with BSE practice.<sup>22</sup>

**Table 1: Studies showing awareness of risk factors, signs and symptoms, screening and practices related to breast self-examination among women in developing countries.**<sup>8-22</sup>

<b>Solikhah et al<sup>8</sup></b>	Cross-sectional study	The rural and urban area of Indonesia	Women 18 to 80 years old	856 women	Knowledge of risk factors of breast cancer was low in an urban area. Attitude and practices related to awareness were better in an urban area. Women of higher education had 70% low attitudes towards breast cancer.
<b>Dadzi et al<sup>9</sup></b>	Cross-sectional study	Volta region of Ghana	Women between the ages of 15–49 years	385 women	88.3% of the respondents were aware of breast cancer. 64.9% of the participants had enough

Continued.

					knowledge of breast cancer. 37.6% women practiced BSE.
<b>Gondnale et al<sup>10</sup></b>	Community-based Cross-sectional study	The rural area of Wardha district.	Resident females of the village above 30years	672 women.	48.2% educated till secondary school. 83.2% belong to the OBC category. Most of the females believed that they don't have breast cancer even before screened.
<b>Samarth et al<sup>11</sup></b>	Cross-sectional Descriptive study	Silicon Valley of India.	18 to 55 years of age	356 women	12.35% gave a family history of breast cancer. Knowledge and attitude were not correlated. Attitude and practice were not correlated. Knowledge and practice were extremely correlated.
<b>Dahiya et al<sup>12</sup></b>	Community-based cross-sectional study	Delhi	Adult women without any prior history of breast cancer.	222 women	Percentage of women's knowing risk factors of breast cancer were: family history of breast cancer- 59.5%; history of smoking- 57.7%, women of older age- 56.3%, lack of physical exercise- 51.9%, not breastfeeding- 48.2%, late menopause- 37.4%, and early menarche- 34.7%. Breast self-examination (BSE) was practiced once a month by 41.4% of the participants.
<b>Sama et al<sup>13</sup></b>	Cross-sectional study	Cameroon	Female Undergraduate students in the higher teachers training College.	345students	88.1% had heard about Breast Cancer. 21.4% students knew about risk factors, sign, and symptom. 47% of participants had heard about BSE. 38.5% had sometimes practiced it.
<b>Madhukumar et al<sup>14</sup></b>	Cross-sectional study	Bengaluru	Age group 18–23 years	1030 college student	58% know of at least one of the symptoms. 59% were familiar of at least one of the risk factors for breast carcinoma. 18% of women knew about BSE.
<b>Madhu et al<sup>15</sup></b>	Cross-sectional study.	Mysuru, Karnataka	Professional women.	100 women	Among the respondent awareness regarding Breast cancer: 99% of Knowledge of risk factors: Early menarche 16%, Late menopause 29%, Alcohol 39%, Family history 57%. Awareness of BSE:63%. Practices of BSE done at least once was: 66%. Awareness of ideal positions of BSE:18%.
<b>Singh et al<sup>16</sup></b>	Cross-sectional study	Among rural and urban District Gurdaspur Punjab, India.	20-40 yrs. women	300 women	More than 80% of women had heard about breast cancer. 70% of women knew of the symptoms. More than 50% had heard about the practice of breast self-examination. 8.9% urban and 5.2% rural women have sometimes practiced it.

Continued.

<b>Oladimeji et al<sup>17</sup></b>	A descriptive cross-sectional study	Nigeria	603 market women in Ibadan, Nigeria.	603 women	70.8% of participants did not know how to perform BSE. 29.2% practice BSE. 61.7% of women had the reaction that BSE is just a screening method.
<b>Sathian et al<sup>18</sup></b>	Cross-sectional study	Pokhran valley, Nepal.	A female resident of Pokhran valley	1420 Female	Women have deficient in knowledge of signs like lump in breast, under armpit, bleeding, or discharge from the nipple.
<b>Gupta et al<sup>19</sup></b>	Cross-sectional study	Gurgaon	15-70 years	7066 Women	Percentage of women having awareness on risk factors was 13-58%, for family history 1-88% and obesity 11-51%.
<b>Amoo et al<sup>20</sup></b>	Cross-sectional study	Nigeria	Female residents of age more than 20	100 women	Risk factors for the onset of breast cancer were excessive alcohol consumption, lack of exercise, cigarette smoking. 55% affirm that it can be controlled by lifestyle factors. 40% believed it can be prevented by proper diet. Knowledge and practice for BSE were poor.
<b>Fotedar et al<sup>21</sup></b>	Descriptive Cross-sectional study	Shimla, Himachal Pradesh, India.	Age ranging from 25 and 57 years.	120 males and females	Knowledge was higher among male as compared to females. 43.3% of the participants had very good knowledge about risk factors 31.7% have excellent knowledge, 20% have good knowledge, 5% have poor knowledge.
<b>Isara et al<sup>22</sup></b>	Cross-sectional study	Nigeria	Females 13-22 years	300 Female students	57% did not know about breast cancer. 76% had low knowledge regarding BSE.

## CONCLUSION

In all 15 studies (Table 1) done in developing countries, it was found that there is a need to educate women of all age group regarding breast cancer risk factors and screening practices, mainly BSE which is cost effective, easy that can help in detecting lump at an earlier stage so that timely treatment can be planned which can help in reducing mortality and morbidity from breast cancer.

Educational campaigns should be organized to increase breast cancer awareness to improve the knowledge of modifiable and non-modifiable, reproductive, and lifestyle factors among developing countries where though incidence is low but mortality is high, irrespective of their socioeconomic and educational background.

There is a need for awareness programs involving people and the health system, to help improve breast cancer literacy in developing countries.

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