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Knowledge and Practices of Women regarding Prevention of Risk factors of Breast Cancer in selected urban areas of Guntur (Dt), AP

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Research Article

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Abstract

Background: Breast cancer is one of the leading causes of cancer deaths among women between the age groups of 40-60 years. One of the eight women will develop breast cancer in her lifetime. Knowing the risk factors and early diagnostic interventions are the corner stone of its prevention. Hence the objective of the study is to find out the Knowledge and Practices of Women regarding Prevention of Risk factors of Breast Cancer.

Materials and Methods: A quantitative study was conducted in the urban area of Guntur among 120 women in the age group of 40-60 years. The subjects were selected by using systematic random sampling. The level of knowledge was assessed by using structured questionnaire and practices were elicited by non participatory check list. Descriptive and inferential statistics were used to analyze the data.

Results: The range of score obtained by women was 3–12 for a maximum score of 20 with a mean score 7.12 ± 0.71. Regarding practice items the scores ranged from 3–17 with a mean score of 7.6 ± 0.7. Majority 94.16% of the women were having the poor knowledge regarding the risk factors of breast cancer and 87.5% of the women were having inadequate practices on preventive measures of risk factors of breast cancer.

Conclusion: The findings of the study had concluded that there is a strong need to educate the public on the risk factors of breast cancer and the measures to prevent them at the earliest.

Keywords: Knowledge; Practices; Prevention; Risk factors; (BSE) Breast self-examination and breast cancer

Introduction

Breast cancer is the principal cause of cancer deaths among women worldwide. It has been estimated that by the year 2020, approximately 70% of new cancer cases will occur among individuals in developing countries and population groups that have previously enjoyed low incidence, with a substantial fraction likely to be breast malignancies [1]. Breast cancer is by far the most frequent cancer of women (23% of all cancers), ranking second overall when both sexes are considered together. It is the leading cause of cancer mortality in women and constitutes 14% of female cancer deaths [2]. The etiology of the majority of breast cancers is not known carefully, in which only about 25% to 40% of them may be attributed to well known risk factors. The risk of breast cancer increases with age. The primary factors that increase the risk of breast cancer in women include certain inherited genetic mutations, a personal or family history of breast cancer, and biopsy-confirmed hyperplasia [3]. Regular performance of BSE does not mean that the breast cancer is necessarily self-detected. BSE increases body awareness, so that there is heightened awareness of changes that may be detected during BSE or at some other time [4]. The poor knowledge and inappropriate practices about risk factors of

cancer breast prevention among women are responsible for a negative perception of the curability of a cancer detected early and of the efficacy of the screening tests [5]. Women with Family History (FH) of Breast Cancer (BRCA) in first-degree relative have a relative risk >4 due to inherited genetic mutation genes.

Review from a cross sectional study done in Nigeria had assessed knowledge and practices of BRCA prevention among women with Family History of BRCA. Snowball sampling technique was used to select 189 women with Family History of BRCA. Respondents mean age was 43.4±9.2 years. Some (42.9%) were not aware of their susceptibility to BRCA. Some (42.9%) of respondents have family members who had died of BRCA and 13.2% have family members who currently have BRCA. Many (61.4%) believed that BRCA is not curable even when detected early and 65.1% did not know that painless lump in the breast is one of the signs of BRCA. Preventive practices among respondents included regular taking of herbs (67.5%) and breastfeeding for longer than 1 year (14.5%). Majority (96.3%) and 38.6% have never performed mammogram and breast self-examination respectively. Incorrect preventive practices existed among respondents. The study also has suggested that Information, education and communication program on breast cancer prevention should be intensified for these women [6,7].

Breast cancer is a major public health problem in developed nations and is becoming an increasingly predominant problem in low and middle income countries, where incidence rates have been increased by up to 5% per year. According to the World Health Organization, the incidence rates in the developing countries will rise because of increasing life expectancy, growing urbanization, and greater adoption of Western lifestyles [8,9].

These are numerous risk factors include female gender, increasing age, family history of BC, early menarche, late menopause, older age at first live childbirth, genetic mutation, diet, obesity, smoking, and alcohol consumption. Nutritional and epidemiological surveys have shown that dietary and lifestyle factors such as obesity, smoking, alcohol consumption, and sedentary lifestyle play significant role as risk factors for breast cancer while breast feeding practice is protective against breast cancer [7,10,11]. Lack of awareness and early detection program in developing country is a main reason for escalating the mortality. This study was designed to evaluate the knowledge and practices on prevention of risk factors of breast cancer among women. This study aimed to determine breast cancer related knowledge and preventive measures being practiced to prevent risk factors and in order to introduce later the best intervention plans in prevention of risk factors.

Objectives

- To assess the knowledge on prevention of risk factors of breast cancer among women.
- To find out the practices regarding prevention of risk factors of breast cancer among women.
- To analyse the association between knowledge and practices among women on prevention of risk factors of breast cancer.
- To find out the relationship between knowledge and practices with selected demographic variables.

Methods and Materials

Research Design and Setting

The research approach used for the present study was quantities with a descriptive design. The study setting was a selected urban community area of Guntur (Dt), Andhra Pradesh.

Sample and Sampling Technique

The population of the study was women between the age group of 40-60 years with a sample size were 120 who met the inclusion and exclusion criteria. A simple random sampling technique was used to select the subject for the study.

Inclusion and exclusion criteria

The study includes women who were:

- Aged between 40 to 60 years.
- Residing in Israelpet an urban area of Guntur.
- Married or unmarried women.
- The study excluded women who are:
- Aged below 40 and above 60 years.
- Mentally challenged
- Visitors and short period living in the urban area.

Development and Description of the Research Tool

A structured questionnaire was developed by the researchers to collect the data from the subjects to assess the knowledge and practices on prevention of risk factors of breast cancer among women. A structured questionnaire developed and used for collecting the data consisted of 3 sections:

Section I: It comprised selected socio demographic data.

Section II: structured knowledge items (20) regarding risk factors of breast cancer and its preventive measures to evaluate the knowledge levels of women.

Section III: Check list on practices items (22) of women on prevention of risk factors of breast cancer.

Content validity and Reliability of the Tool

The content validity of the tool was done by experts from the department of community medicine and OBG. Modifications and suggestions were incorporated into the final tool. The tool was administered to 10 women and reliability was established by using test and retest method. The correlation coefficient was computed and the reliability for questionnaire on knowledge was 0.74 and for practices it was 0.80. The tool was considered as highly reliable for the study.

Data Collection Procedure

Data collection was carried out for a period of 6 months. Prior to the data collection the investigator has obtained the permission from the college ethical committee and medical officer of urban health centre at Israelpet. A written informed consent was taken from each of the respondent. After establishing a formal interaction the data was obtained from the samples and the responses were secured for each of the questions in the tool. The entire data collection was taken about 40 minutes for each participant.

Results

The demographic variables in Table 1 of the study results had demonstrated that 37 (30.83%) of the respondents were in the age group 56-60 years followed by 32 (26.66%) between 46-50 years of age. Majority 62 (51.6%) of the subjects were non literates and another 47 (39.16%) of them had up to secondary education. With regard to the number of living children majority 56 (46.66%) of respondents reported having 2 children followed by 35 (29.16%) three and above children. Most 86 (71.6%) of the subjects were makers. As reported by the samples 55 (45.83%) had attained their menarche between the ages of 12-13 years. Majority 100 (88.3%) of the subjects were married and living with family. Majority 75 (62.5%) of the respondents were living in the nuclear family. Just half of the samples 60 (50%) had reported attained the menopause and the remaining 30 (25%) of them had regular and irregular menstrual cycle respectively. As per the knowledge of the respondents only 8 (6.6%) had expressed that there was history of breast cancer in their 1st degree relatives. None of the respondents had taken any hormonal replacement therapy.

n=120

Sl. No	Demographic variables	(f)	(%)
1	**Age in years**		
	a) 40-45 years	25	20.86
	b) 46-50 years	32	26.66
	c) 51-55 years	26	21.6
	d) 56-60 years	37	30.83
2	**Education**		
	a) Non literates	62	51.6
	b) Primary / Secondary	47	39.16
	c) Inter	8	6.6
	d) Degree	3	2.5
3	**No. of living children**		
	a) None	6	5
	b) One	23	19.16
	c) Two	56	46.66
	d) Three and above	35	29.16
4	**Occupation**		
	a) House makers	86	71.6
	b) Self-employee	17	14.16
	c) Government job	2	1.6
	d) Daily wages	15	12.5
5	**Age of Menarche**		
	a) 11-12 years	25	20.83
	b) 13-14 years	55	45.83
	c) 15-16 years	30	25
	d) 17 years and above	10	8.3

6	**Marriage**		
	a) Yes	100	83.3
	b) No	0	0
	c) Widow	20	16.6
7	**Type of family**		
	a) Joint family	30	25
	b) Nuclear family	75	62.5
	c) Living single	15	12.5
8	**Menstrual cycle**		
	a) Regular	30	25
	b) Irregular	30	25
	c) Menopause	60	50
9	**Presence of breast cancer in family..?**		
	a) Yes	5	4.16
	b) No	115	95.84
10	**Presence of breast cancer in relatives...?**		
	a) None	111	92.50%
	b) 1st Degree	8	6.60%
	c) 2nd Degree	1	0.80%
11	**Hormonal replacement**		
	a) Yes	0	100%
	b) No	120	0%

Table 1: Distribution of samples based on their demographic variables**.**

n=120

Anthropometric measurements	Range	Mean	SD
➢ Height in cm	140 - 165	151.1	10.61
➢ Weight in kgs	40 - 75	54.3	3.54

Table 2: Distribution of subjects based on Range, Mean and Standard deviation of height and weight.

Table 2 Reveals that the range of height in cm was 140-165 with a mean score of 151.1±10.61. The range of weight in kilograms was 40-75 with a mean weight of 54.3±3.54.

n=120

BMI Classification	(f)	(%)	Mean and SD
Normal range (18.50-24.99)	45	37.5	Mean 26.15 SD 1.57
Overweight (>25)	14	11.66	
Pre obese (25.00-29.99)	41	34.16	
Obese class I (30.00-34.99)	19	15.83	
Obese class II (35.00-39.99)	2	1.66	
Obese class III (>40.00)	0	0	

Table 3: Distribution of samples according to the BMI classification, mean and SD.

Table 3 refers to the Body Mass Index (BMI) classification of the subjects. About 45 (37.5%) of the samples were in the normal range (18.50-24.99) of BMI. Another 41 (34.16%) were in the Pre obese (25.00-29.99) category. Very few of the subjects were in the category of class one 19 (15.83%) and class two 2(1.66%) obesity.

n=120

Knowledge variable	(f)	(%)
➢ Poor (score of <10)	113	94.16
➢ Good (score between 11-15)	7	5.84
➢ Excellent (score of >15)	0	0
Total	**120**	**100%**

Table 4: Distribution of the respondents according to the level of knowledge regarding prevention of risk factors of breast cancer.

Maximum score of knowledge items -20

Table 4 depicts the respondent's knowledge regarding prevention of risk factors of breast cancer. Majority 113 (94.16%) of them were having poor knowledge with below the score of 10. Only 7 (5.84%) of the respondents had good knowledge with score ranging 11-15.

n=120

Practice Variables	(f)	(%)
➢ Adequate (A score of 11- 22)	15	12.5
➢ Inadequate (A score of 0 - 10)	105	87.5
Total	**120**	**100%**

Maximum score of practice items -22

Table 5: Distribution of the subjects according to the level of practices regarding prevention of risk factors of breast cancer.

Table 5 shows the practice levels of subjects regarding prevention of risk factors of breast cancer. Majority of the respondents 105 (87.5%) were having inadequate practices with a score between 0 -10. And remaining 15 (12.5%) of women were having adequate practices.

Discussion

The present study revealed that majority 62 (51.6%) of the subjects were non literates. The educational status was the same with the study conducted in Nigeria in which 77 (40.7%) of the study population had no education [6]. Just 37 (30.83%) of the respondents were in the age group of 56-60 years. This age group of women would me more vulnerable to breast cancer compared with other women in other age group. In this study the respondent's knowledge regarding prevention of risk factors of breast cancer, majority 113 (94.16%) of them were having poor knowledge with below the score of 10. Only 7 (5.84%) of the respondents had good knowledge with score ranging 11-15. For the knowledge variables the range of score was 3 -12 with mean score 7.12±0.71 and with regard to practice variable the rang of score was 3-17 with a mean score of 7.6±0.71.In a similar study done in Nigeria greater number 39.8% (138/347) whose scores ranged 3-5 (knowledge of 3-5 risk factors) had fair knowledge. While 26.0% (90/347) who scored 0 (no knowledge of any of the risk factors) had very poor knowledge compared to 0.8% (3/347) that had a very good knowledge. Generally it was only about 49.7% (172/347) that knew up to 3 breast cancer risk factors [12]. The commonest reason for not practicing any of the preventive procedures was due to lack of awareness and avoidance of fear and anxiety as Indian women are more of traditional lifestyle. Similar reasons were also given in previous studies too. Specifically 'the feeling that one cannot get breast cancer' indicates disbelief and superstition. Disbelief and misconception about breast cancer has been reported as contributory factor to late reporting [13,14].

Recommendations

- A comparative study could be taken up between the awareness and attitude of women.
- A similar study could be taken up with large sample making more valid generalization.
- An experimental study could be done with control group for comparison between rural and urban women.
- Interventional study could be taken up with educational module.

Conclusion

The study points out that there is insufficient knowledge among women about breast cancer and identified the negative influence of low knowledge on the practices in preventive measures. Accordingly, relevant educational programs, based on a national base, to improve the knowledge level of women regarding breast cancer and its risk factors are needed. There is very urgent need for regular update courses for health workers concerning breast cancer education including screening methods promotion of healthy lifestyles.

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Conflict of Interest: None

Ethical Clearance: The study was conducted after getting ethical clearance from institutional research ethical committee.

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