



IMPACT OF AWARENESS PROGRAMME ON KNOWLEDGE RELATED TO PREVENTION OF BREAST CANCER AMONG MOTHERS IN SELECTED RURAL AREA

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Abstract

The current study has been undertaken to assess knowledge score regarding Prevention of Breast cancer among mothers by awareness programme in Selected rural area, Gwalior. The research design used for study was pre- experimental in nature. The tool for study was self-structured knowledge questionnaire which consists of 2 parts-PART- I consisted questions related to Socio-demographic data; PART-II consisted of self -structured knowledge questionnaire to assess knowledge score regarding Prevention of Breast cancer among mothers. The data was analyzed by using descriptive & inferential statistical methods. The most significant finding was that 20.5% of mothers were having average knowledge regarding Prevention of Breast cancer whereas 79.5% had fair knowledge after post-test. It was suggested that nurses must educate mothers regarding Prevention of Breast cancer.

Keyword- Impact, awareness programme, knowledge & Prevention of Breast cancer.

1. INTRODUCTION

Breast cancer is the most diagnosed cancer among women worldwide, accounting for 1 in 4 cancer cases. It is the most frequent cancer amongst both sexes and is the leading cause of death from cancer in women. The estimated 2.3 million new cases indicate that one in every 8 cancers diagnosed in 2020 is breast cancer. In 2020, there were an estimated 684,996 deaths from breast cancer, with a disproportionate number of these deaths occurring in low-resource settings.

Breast cancer cells usually form a tumour that can often be seen on an x-ray or felt as a lump. If spread outside the breast through blood vessels and lymph vessels, it becomes advanced breast cancer. When breast cancer spreads to other parts of the body (such as the liver, lungs, bones or brain), it is said to have metastasised, and is referred to as metastatic breast cancer.

2. NEED FOR STUDY

Breast cancer has ranked number one cancer among Indian females with age adjusted rate as high as 25.8 per 100,000 women and mortality 12.7 per 100,000 women. Data reports from various latest national cancer registries were compared for incidence, mortality rates. The age adjusted incidence rate of carcinoma of the breast was found as high as 41 per 100,000 women for Delhi, followed by Chennai (37.9), Bangalore (34.4) and Thiruvananthapuram District (33.7). A statistically significant increase in age adjusted rate over time (1982-2014) in all the PBCRs namely Bangalore (annual percentage change: 2.84%), Barshi (1.87%), Gwalior (2.00%), Chennai (2.44%), Delhi (1.44%) and Mumbai (1.42%) was observed. Mortality-to-incidence ratio was found to be as high as 66 in rural registries whereas as low as 8 in urban registries. Besides this young age has been found as a major risk factor for breast cancer in Indian women. Breast cancer projection for India during time periods 2020 suggests the number to go as high as 1797900.

3.OBJECTIVE OF THE STUDY

1. To assess the pre-test & post-test Knowledge score regarding Prevention of Breast cancer among mothers.
2. To assess impact of awareness programme on knowledge regarding Prevention of Breast cancer among mothers.
3. To find out association between pre-test knowledge score regarding Prevention of Breast cancer among mothers with their selected demographic variables.

4. HYPOTHESES:

RH₀: There will be no significant difference between pretest & post-test knowledge score on Prevention of Breast cancer among mothers.

RH₁: There will be significant difference between pretest & post-test knowledge score on Prevention of Breast cancer among mothers.

RH₂: There will be significant association between pre-test score on Prevention of Breast cancer among mothers with their selected demographic variables.

5. ASSUMPTION

1. Mothers may have deficit knowledge regarding Prevention of Breast cancer.
2. Awareness programme will enhance knowledge of mothers regarding Prevention of Breast cancer.

6. METHODOLOGY:

An evaluative approach was used and research design pre-experimental one group pre-test post-test research design was used for the study. The samples consisted of 44 mothers selected by Non probability convenient sampling technique. The setting for the study was Selected rural area, Gwalior. Data was gathered with help of demographic variables & administering a self-structured knowledge questionnaire by analyst prior & after awareness programme. Post-test was done after seven days of pre-test. Data were analysis using descriptive & inferential statistics.

7. ANALYSIS AND INTERPRETATION

SECTION-I Table -1 Frequency & percentage distribution of samples according to their demographic variables.

n = 44

S. No	Demographic Variables	Frequency	Percentage
1	Age in Years		
a.	22-28	23	52.3
b.	29-35	6	13.6
c.	≥36	15	34.1
2	Types of family		
a.	Extended	1	2.3
b.	Nuclear	19	43.2
c.	Joint	24	54.5
3	Occupation		
a.	House maker	13	29.5
b.	Heavy worker	26	59.1
c.	Employee	5	11.4
4	Educational Status		
a.	No formal education	16	36.4
b.	Primary	15	34.1
c.	Secondary	13	29.5
d.	Higher secondary & above	0	0.0
5	Previous knowledge related to Covid-19 and its prevention		
a.	Yes	5	11.4
b.	No	39	88.6

SECTION-II- Table- 2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects:

Category and test Score	Frequency (N=44)	Frequency Percentage (%)
POOR (1-10)	39	88.6
AVERAGE (11-20)	5	11.4
GOOD (21-30)	0	0.0
TOTAL	44	100.0

The present table 2.1.1 concerned with the existing knowledge regarding Prevention of Breast cancer among mothers were shown by pre-test score and it is observed that most of the mothers 39 (88.6%) were poor (01-10) knowledge & some mothers have 5 (11.4%) were from average category.

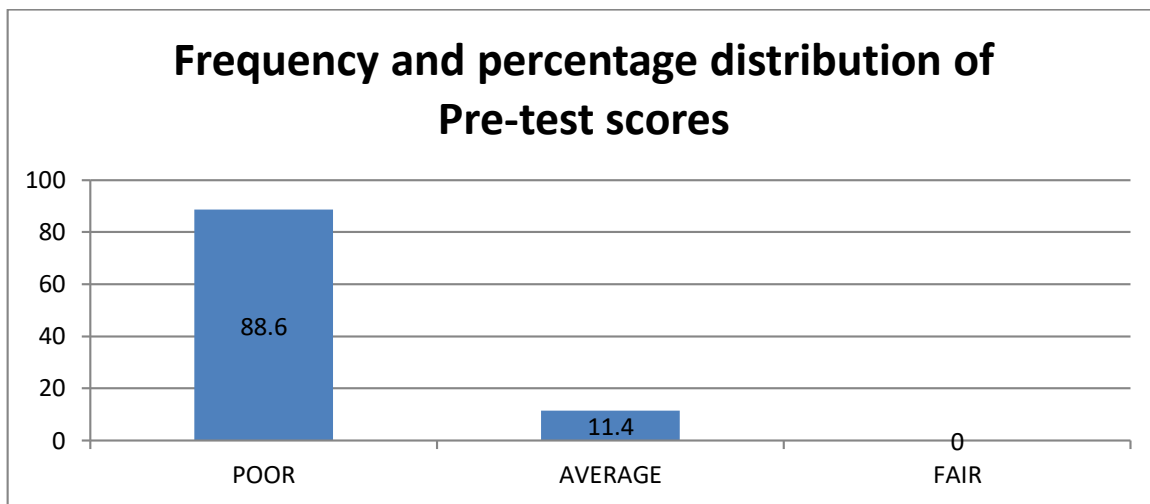


FIG.-2.1.1- Frequency and percentage distribution of Pre-test scores of studied subjects

Table-2.1.2. - Mean (\bar{X}) and standard Deviation (s) of knowledge scores:

Knowledge Pre -test	Mean (\bar{X})	Std Dev (S)
Pre-test score	1.12	0.33

The information regarding mean, percentage of mean and standard deviation of test scores in shown in table 2.1.2 knowledge in mean pre-test score was 1.12 ± 0.33 while in knowledge regarding Prevention of Breast cancer among mothers in Selected rural area, Gwalior.

Hence, it is confirmed from the tables of section-II that there is a significant difference in mean of test scores which partially fulfill first objective of the present study.

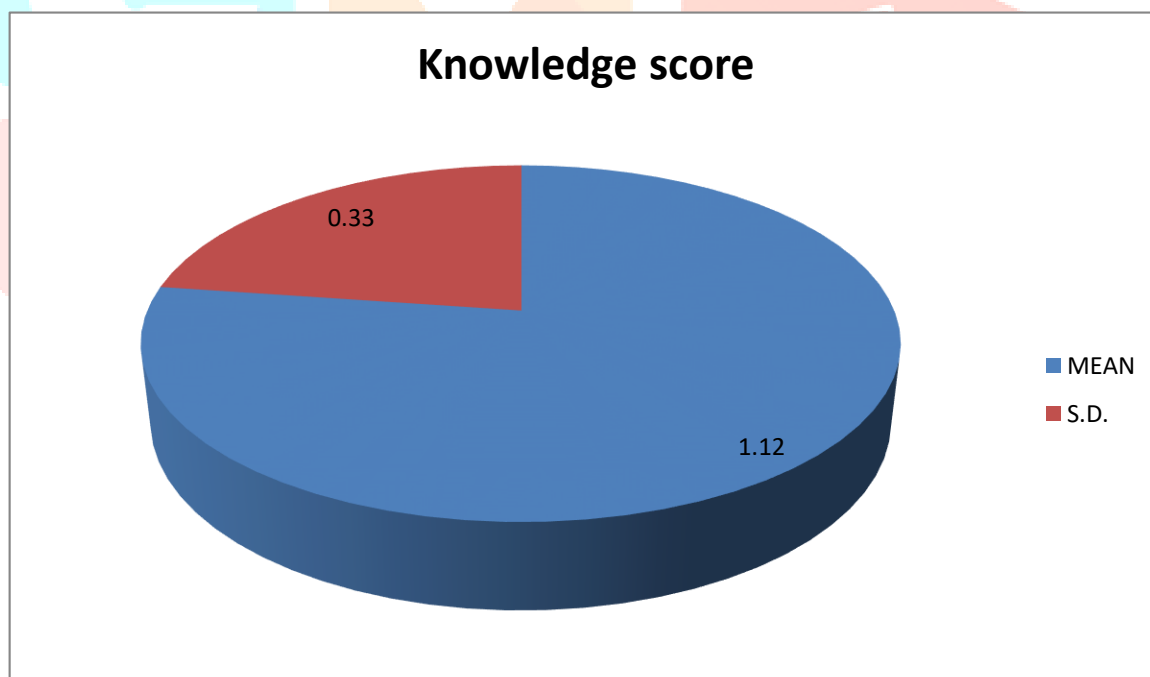


FIG.-2.1.1.1. - Mean (\bar{X}) and standard Deviation (s) of knowledge scores

Table-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects:

Category and post-test Score	Frequency (N=44)	Frequency Percentage (%)
POOR (01-10)	0	0.0
AVERAGE (11-20)	9	20.5
GOOD (21-30)	35	79.5
TOTAL	44	100%

The present table 2.2.1 concerned with the existing knowledge regarding Prevention of Breast cancer among mothers was shown by post test score and it is observed that most of the mothers 35 (79.5%) were **FAIR** (21-30) knowledge & other mothers have 9 (20.5%) category which are **AVERAGE** (11-20) posttest knowledge score in present study.

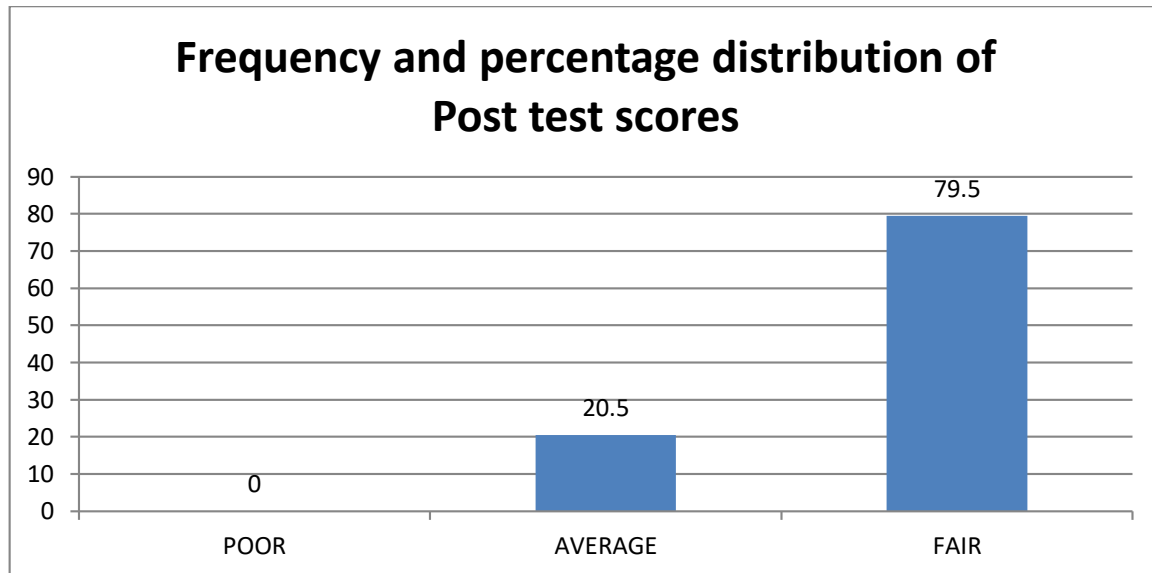


FIG.-2.2.1- Frequency and percentage distribution of Post test scores of studied subjects

Table-2.2.2. - Mean (\bar{X}) and standard Deviation (s) of knowledge scores:

Knowledge Test	Mean (\bar{X})	Std Dev (S)
Post-test score	2.79	0.40

The information regarding mean, percentage of mean and SD of post test scores in shown in table 2.2.2 knowledge in mean post test score was 2.79 ± 0.40 while in knowledge regarding Prevention of Breast cancer among mothers in Selected rural area, Gwalior.

Hence, it is confirmed from the tables of section-II that there is a significant difference in mean of test scores which partially fulfill 2nd objective of the present study.

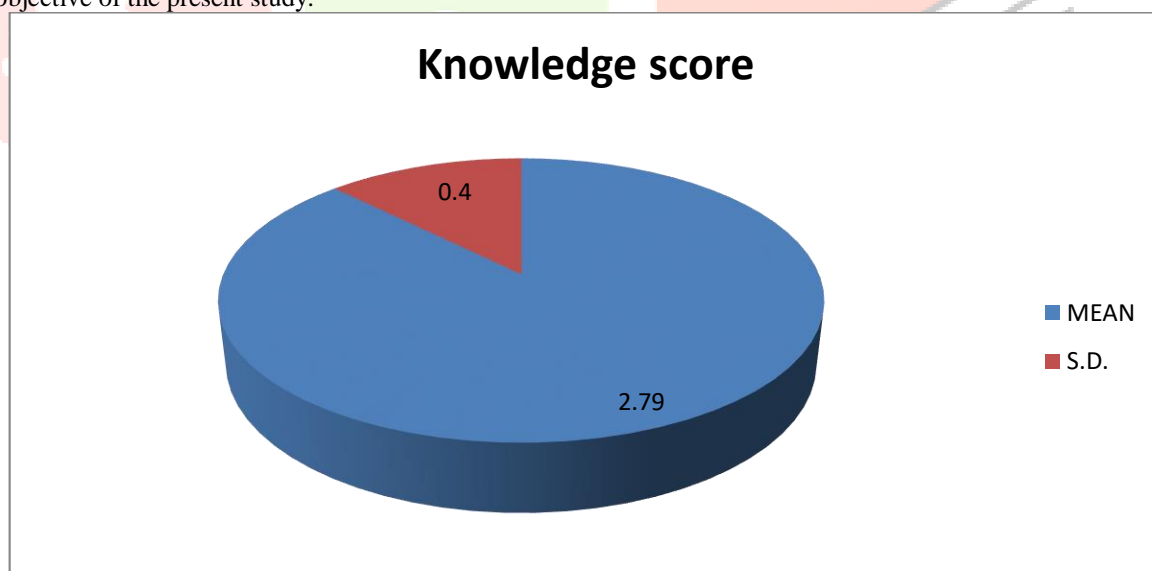


FIG.-2.2.2. - Mean (\bar{X}) and standard Deviation (s) of knowledge scores:

TABLE 2.2.3: Impact of awareness programme by calculating Mean, SD, Mean Difference and 't' Value of Pre-test and Post-test knowledge.

Knowledge Score of Mothers	Mean (\bar{X})	S. D. (s)	Std. Error of Mean	D. F.	t-value	Significance
Pre-test	1.12	0.33	0.07812	43	-21.53	P<0.0001*
Post-test	2.79	0.40				

When the mean and SD of pre-test & post-test were compared & 't' test was applied. It can be clearly seen that the 't' value was -21.53 and p value was 0.0001 which clearly show that awareness programme was very effective in enhancing the knowledge of mothers.

SECTION-III Association of knowledge scores between test and selected demographic variables:**Table- 3.1 Association of age of mothers with pre-test scores:**

Age (In years)	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
22-28	20	3	0	23
29-35	4	2	0	6
≥36	15	0	0	15
Total	39	5	0	44
$X^2=4.86$ $p>0.05$ (Insignificant)				

The association of age test scores is shown in present table 3.1. The probability value for Chi-Square test is 4.86 for 2 DF which indicated insignificant value ($p>0.05$). Hence, it is identified that there is a insignificant association between age & test scores. Moreover, it is reflected that age isn't influenced with current problem.

Table- 3.2 Association of types of family with pre-test scores:

Types of family	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
Extended	1	0	0	1
Nuclear	15	4	0	19
Joint	23	1	0	24
Total	39	5	0	44
$X^2=3.13$ $p>0.05$ (Insignificant)				

The association of types of family & test scores is shown in present table 3.2. The probability value for Chi-Square test is 3.13 for 2 degrees of freedom which indicated a insignificant value ($p>0.05$). Hence, it is identified that there is a insignificant association between types of family & test scores.

Table-3.3. Association of Occupation with pre-test scores:

Occupation	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
House maker	12	1	0	13
Heavy worker	25	1	0	26
Employee	2	3	0	5
Total	39	5	0	44
$X^2= 13.37$ $p>0.05$ (Insignificant)				

The association of Occupation & test scores is shown in present table 3.3. The probability value for Chi-Square test is 13.37 for 2 degrees of freedom which indicated insignificant value ($p>0.05$). Hence, it is identified that there is a insignificant association between Occupation & test scores. Moreover, it is reflected that Occupation isn't influenced with present problem.

Table- 3.4 Association of educational status with pre-test scores:

Educational Status	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
No formal	16	0	0	16
Primary	11	4	0	15
Secondary	12	1	0	13
Higher sec & above	0	0	0	0
Total	39	5	0	44
$X^2= 5.71$ $p>0.05$ (Insignificant)				

The association of educational status & test scores is shown in present table 3.4. The probability value for Chi-Square test is 5.71 for 2 degrees of freedom which indicated educational & test scores. Moreover, it is reflected that educational isn't influenced with present problem.

Table- 3.5 Association of previous knowledge related to cervical cancer with pre-test scores:

Previous Knowledge	Test scores			Total
	POOR (1-10)	AVERAGE (11-20)	FAIR (21-30)	
Yes	4	1	0	5
No	35	4	0	39
Total	39	5	0	44
$X^2=0.41$ $p>0.05$ (Insignificant)				

The association of previous knowledge related to cervical cancer test scores is shown in present table 3.5. The probability value for Chi-Square test is 0.41 for 1 degrees of freedom which indicated previous knowledge related to cervical cancer & test scores. Moreover, it is reflected that previous knowledge Covid-19 and its prevention isn't influenced with current problem.

8.RESULTS

The result of this study indicates that there was a significant increase in post-test knowledge scores compared to pre-test scores of Preventions of Breast cancer. The mean percentage knowledge score was observed 1.11 ± 0.32 in pre-test & after implementation of awareness programme post-test mean percentage was observed with 2.79 ± 0.40 .

9.CONCLUSION

Thus, after the analysis and interpretation of data we can conclude that the hypothesis RH1 that, there will be significance difference between pre-test knowledge score with post-test knowledge score at ($P<0.001$) is being accepted. Furthermore, awareness programme related to Prevention of Breast cancer among mothers may consider as an effective tool when there is a need in bridging & modifying knowledge.

10.LIMITATIONS-

- This was limited to Selected rural area, Gwalior.
- This was limited to 44 mothers.

11.REFERENCE-

1. I.Sørli T, Perou CM, Tibshirani R, Aas T, Geisler S, Johnsen H, et al Gene expression patterns of breast carcinomas distinguish tumor subclasses with clinical implications. Proc Natl Acad Sci U S A 2001;98:10869–74.
Google ScholarCrossref
2. Baselga J, Swain SM. Novel anticancer targets: revisiting ERBB2 and discovering ERBB3. Nat Rev Cancer 2009;9:463–75.
Google ScholarCrossref
3. Jordan VC. Selective estrogen receptor modulation: concept and consequences in cancer. Cancer Cell 2004;5:207–13.
Google ScholarCrossref
4. Yarden Y, Sliwkowski MX. Untangling the ErbB signalling network. Nat Rev Mol Cell Biol 2001;2:127–37.
Google ScholarCrossref
5. Spector NL, Blackwell KL. Understanding the mechanisms behind trastuzumab therapy for human epidermal growth factor receptor 2-positive breast cancer. J Clin Oncol 2009;27:5838–47.

Google ScholarCrossref

6.Christianson TA, Doherty JK, Lin YJ, Ramsey EE, Holmes R, Keenan EJ, et al NH2-terminally truncated HER-2/neu protein: relationship with shedding of the extracellular domain and with prognostic factors in breast cancer. *Cancer Res* 1998;58:5123–9.

Google Scholar

7.Anido J, Scaltriti M, Bech Serra JJ, Santiago Josefát B, Todo FR, Baselga J, et al Biosynthesis of tumorigenic HER2 C-terminal fragments by alternative initiation of translation. *EMBO J* 2006;25:3234–44.

Google ScholarCrossref

