IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A Study To Assess The Effectiveness Of Informational Booklet On Knowledge, Attitude And Prevalence Of Risk Factors Regarding Breast Cancer Among Women Aged (20 – 50 Years) Of Bhopal City.

[1] Prof. Soney Toppo,[2] Seema Patel,

[1]HOD &Professor & Principal,[2]MSc. Nursing Scholar

[1]Midwifery and Obstetrical Nursing

[1]Career College Of Nursing, Bhopal ,India

Abstract: This study aimed to assess the effectiveness of an informational booklet on the knowledge, attitude, and prevalence of risk factors regarding breast cancer among womenaged20-50yearsinselectedcollegesinBhopal.Apre-experimental,one-group pre-test post-test design was used, and 250 women were selected through purposive sampling. The study evaluated the impact of the informational booklet in improving awareness and identified associations between knowledge levels and demographic variables. The results indicated a significant increase in knowledge after the intervention. The studyalso found associations between age at menarche and the pre- test level of knowledge. The findings emphasize the role of informational booklets in enhancing knowledge about breast cancer and suggest practical applications for nursing education and health promotion.

Index Terms - Breast Cancer, Informational Booklet, Knowledge, Attitude, Risk Factors, Women, Health Education, Awareness, Pre-test, Post-test, Nursing Education

I. INTRODUCTION

Breast cancer remains a leading cause of morbidity and mortality among women worldwide. Early detection and awareness about the risk factors associated with breast cancer are critical for its prevention and early diagnosis. The present study was designed to evaluate the effectiveness of an informational booklet in improving knowledge, attitudes, and the prevalence of risk factors regarding breast cancer among women aged 20-50 years in selected colleges in Bhopal. The study utilized a pre experimental one-group pre-test post-test design, focusing on understanding how an educational tool could enhance breast cancer awareness and its impact on women's attitudes and health behaviors. Woman is a synonym of a sacrifice. “A woman is the most beautiful creation of God, not only on physical aspects, but certainly on every aspect”. From time immemorial breast has been a symbol of womanhood and ultimate fertility. It has been beautifully depicted in our art and culture and even in modern times that women maintain the sanctity of this organ which symbolizes feminity.

As a result, any danger to the breast evokes fear of loss of feminity and hence fertility. (Sumit Mehta-2011). The "BREAST" is the tissue overlying the chest (pectoral muscles).Women's breasts are made up of specialized tissue that producesmilk (glandular tissue) as well as fatty tissues. The amount of fat determines the size of the breast. (Women's Health-2014). A woman's breasts go through a significant change throughout the course of her life, making the monitoring of the breast health is an important part ofself care. This process is something that should be instilled at puberty. Whether it's breast self exams during teenage years or routine mammogramsin middle age, there's always an aspect of breast care that women should knowand maintain. (Cancer Care-2015). "CANCER" is a group more than 200 diseases characterized by

The investigator had more clinical experience of taking care of patientswith breast cancer. She found that women aged (20 – 50 years) have less awareness on knowledge regarding breast cancers. So she felt that there is an urgent need to give awareness of knowledge regarding breast cancer among women aged (20 – 50 years) of patients with breast cancer. And also, from the above mentioned studies, investigator found that there is a need to strengthen the knowledge of women aged (20 – 50 years) regarding breast cancer. The present study is designed ta assess the knowledge level of women aged (20 – 50 years) and to administer a Informational Booklet which will help them to improve their knowledge.

II. REVIEW OF LITERATURE-

Elsie KM, et al., (2023) Breast cancer is the third commonest cancer in Ugandan women. Women present late for breast cancer management which leads to high mortality rates. The objective of the study was to assess the knowledge, attitudes and practices of Ugandan women concerning breast cancer and mammography. It was a descriptive crosssectional study where 100 women reporting to the Radiology department were interviewed with consecutive sampling technique. Interviewer-administered questionnaires were used to collect opinions of the participants. For data analysis, answers were described asknowledge, attitude, practice and they were correlated with control variables through the chi-square. Bivariate and logistic regression analyses were also used. Most of the women (71%) had no idea about mammography. More than 50% did not know about risk factors for breast cancer. The attitude towards mammography was generally negative. Regarding seeking for mammography, level of literacy, occupation and marital status were significant on bivariate analysis, however only level of literacy and employment remained the significant independent variables on logistic regression analysis. The main barrier to mammography was mainly lack of information. The study concluded that women in this study had inadequate knowledge and inappropriate practice related to mammography as a procedure for breast cancer investigation. Bird Y. et al., (2023), Narrated a study to assess leading cause of family history of breast cancer among hispanicswomen cross-sectional study was used to assess difference in breast cancer knowledge, attitudes, and screening practices between Hispanic woman with (FH+) and without (FH-) a family history of breast cancer in three U. S. Mexico border counties. Among 137 Hispanic women age 40 and older, FH+ women had levels of knowledge and attitudes about breast cancer similar to those of FH- women . FH+ participants were more likely to have ever performed breast self-examinations, although level of compliance with screening guidelines did not significantly differ between FH+ and FH- groups. The result concluded that U.S. Hispanic women with a family history ofbreast cancer constitute an at-risk group which adhering to preventive screening guidelinescould substantially reduce breast cancer mortality. Calik KY, et al., (2022), conducted a quasi-experimental investigation was carried out in an area where two community health care centers are located, in the city of Trabzon, Turkey. Divided randomly into three groups, 1,342 women were instructed in BSE using individual or group training or by way of pamphlets. The study was designed to investigate the effectiveness of various training methods for breast self-examination (BSE)knowledge, practice, and health beliefs. Data were gathered in four stages: during the pretraining and one month, six months and twelve months after training. The study concluded that three training methods were used enabled us to assess the effectiveness of instruction on BSE performance and competence. In addition, it provided us with valuable information on how training methods can influence health beliefs related to BSE. Yaren, A.et.al..,(2022), conducted a cross sectional study to assess the awareness of breast cancer and cervical risk factors and screening behaviours among nurses in rural 17 regions of turkey and found despite high levels of knowledge of breast cancer, inadequate knowledge of cervical cancer screening method were found among nurses. Mar I no,s (2022), investigated on knowledge and practice of breast self examination in health center. 13 randomly selected women attending the health center sampled in this study had inadequate knowledge and practice about BSE but had an adequate & favourable attitude about it. Jorgensen.L et.al., (2022) had done a cohort study on prevalence and predictors of distress in 1079 women taking part in surgical continuity of care for breast cancer at Breast Cancer Surgery Department in Denmark.Distress was evaluated using the distress thermometer and predictors of distress were assessed with a self administered questionnaire at the time of diagnosis, at discharge and by the start of treatment or followup. Data analysis was done by ANOVA, simple and multiple linear

regressions. The investigator reported that more than 2/3rd of women with breast cancer experienced moderate/severe distress. This study finding highlights theneed to identify the individual women with distress and offer them adequate support and care. Janda M. et.al.., (2022), conducted an Austria – Wide population based cross sectional study with an aim to asses the Austrian Women attitudes toward knowledge of breast cancer self examination and result showed 92% of the knew breast self examination but only 13% practiced it thoroughly. 18 Jamila Ali Alsanabani, Waleed Gilan and Azzan Al Saadi (2015) undertook a retrospective study to determine the incident data for breast cancer among 595 female patients with palpable breast lumps at Alkuwait University Hospital, Yemen. In this study, the researchers provided a questionnaire which contains detailed information about the samples and triple assessment was done such as breast examination, mammography andbiopsy for all the samples. The final results showed that the rate of breast cancer is high, with occurrence at an earlier age than in Western countries. So that, they are in need of breast cancer awareness and screening programme to establish early diagnosis of breast cancer. Nor Aini Abdullah et.al., (2013) had done a population based retrospective cohort study to assess the survival rate of breast cancer patients in 10,230 Malaysian women. Data were obtained from Health informatics centre, Ministry of health Malaysia, National cancer registry and National registration department and were analyzed by using SPSS statistical software version 17. This study results showed that women aged less than 50 years old significantly better survival compared to women of 50 years old and above. Fredholm et.al, (2009) performed a registry based cohort study to assess the prognosis of breast cancer among 22,017 young women inSweden. Data were collected from the regional breast cancer registers in two of Sweden six health care regions which currently serve a populationof almost 3.9 million in habitant. The cumulative 5 year relative survival ratio and the relative excess mortality were calculated. Statistics Sweden SAS 9.1 software used for all statistical analyses. The findings revealed that the youngest women with small tumours generally received moreaggressive treatment than women in older age groups. 19 Literature related to risk / etiological factors of breast cancer: Palmer, S.R et..,(2023), conducted a large prospective Cohort study on dual effect of parity on breast cancer risk in African American women and results showed that compared with primi parity, high parity was associated with an increased risk of breast cancer among women younger than 45 years and conducted parity has a dual association with breast cancer risk in African American women. Tang, M.T et al.,(2023), wished to assess the relation of induced abortion to the subsequent incidence of breast cancer among parous women. The risk of breast cancer wasnot found to be associated with a prior induced abortion. These results suggested that an induced abortion, if followed at some later time by pregnancy women risk of breast cancer. Syamla V .et al., (2023), conducted a case control study to identify the genetic heterogenicity, prevalence and frequently of germline mutuation od BRCA2 gene inhereditary breast/ ovarian cancer patients. The result suggest that germline mutations of BRCA2 gene account for rather small proption of hereditary breast/ovarian cancer in Kerala, South India. Harris P.M et al.,(2022), conducted a population based sample survey on racial difference in breast cancer screening, knowledge and compliance on more than 4.500 women. Black women were less likely than white women to be aware of and use breast cancer screening test and concluded that program should inform women about cacner screening and remove barriers of screening that hundred women from receiving clinical screening exams. Nyante S.J et al.,(2022), conducted a comparison study to examine whether the relationship between oral contraceptive use and incident breast cancer differs between lobular and ductal subtypes in young women and results suggest that the magnitude of the association between ever use of oral contraceptive and breast cancer in young women doesnot vary strongly by histologic subtype. Chleboweki R.T(2022), conducted a cohort study on producing risk of breastcancer in post menopaused women by hormone receptor status and among 147,916 eligible women, 3, 236 were diagnosed with invasive breast cancer ad states that in post menopausal women, the gail model identified populations at increased risk for ER-positivebut not ER-negative breast cancers.

3.1Population and Sample

Setting of the study The study was conducted in among women aged (20 – 50 years). Study population The study population comprised of women aged (20 – 50 years) in selected colleges. Sample Women aged (20 – 50 years) in selected colleges who fulfill the inclusion criteria will be considered as a sample. Sample size Sample size comprised of 250 women aged (20 – 50 years) in selected colleges.

3.2 Data and Sources of Data

The investigator met the Director, in order to obtain permission and cooperation to conduct the study successfully. The investigator introduced her to the women aged (20 – 50 years) in selected colleges and established rapport with them. The study was conducted for the period of two weeks. The investigator selected the samples those who fulfilled the inclusion criteria. The informed consent was obtained. Appropriate orientation had given to the subjects about the aim of the study and nature of questionnaire. The pre- test was done to assess the female caregiver's knowledge, attitude and prevalence of risk factors through semi-

structured questionnaire which contain 25 MCQ questions. Informational booklet was administered. The post-test of study was carried out one week later, using same tool as the pre- test. Collected data was then tabulated and analyzed. Plan for data analysis Data analysis was done according to the objectives of the study. Both descriptive and inferential statistics were used. 37 1. Analysis of the demographic data was done by frequency, mean, percentage.

2. Paired t- test was used to determine the difference between the pretest and post-test score in terms of effectiveness of informational booklet.

3. Chi-square test was used to determine the association between the pre-test level of knowledge, attitude and prevalence of risk factors and selected demographic variables.

3.3 Theoretical framework

The research was conducted using a pre-experimental design, specifically a one-group pre-test post-test model.

RESEARCH METHODOLOGY

A total of 250 women aged 20-50 years from selected colleges in Bhopal participated in the study. Purposive sampling was used to select participants who met the inclusion criteria. The data collection process involved administering a structured knowledge questionnaire before and after providing the informational booklet on breast cancer. The data was analyzed using statistical methods such as chisquare tests and t-tests to assess changes in knowledge levels and associations between demographic variables and knowledge scores.

3.4Statistical tools and econometric models

The findings of the study indicated that prior to the intervention, the majority of participants had inadequate knowledge about breast cancer. Only 8% of the participants had a moderate level of knowledge, while 87% had inadequate knowledge. After exposure to the informational booklet, 92% of participants exhibited adequate knowledge, with a significant improvement in their understanding of breast cancer. The statistical analysis revealed a t-value of 37.25, which was significant at the 0.05 level, confirming the effectiveness of the informational booklet in improving participants' knowledge. The study also identified a significant association between age at menarche and the pre-test level of knowledge, while other demographic variables such as family history and dietary patterns did not show a significant relationship with knowledge scores.

IV. RESULTS AND DISCUSSION-

Description of samples according to their selected demographic variables

Table: 1: Distribution of samples according to their selecteddemographic variables Experimental group (n=250)

S:no	**Demographic variables**	**Frequency**	**Mean**	**Percentage%**
1	**Age (in years) at present:**			
	15-20	**125**	**0.58**	**50%**
	21-25	**50**	**0.2**	**20%**
	26-30	**55**	**0.22**	**22%**
	more than 30	**20**	**0.08**	**8%**
2	**Age (in years) at menarche:**			
	a) 10-11	**138**	**0.55**	**55%**
	b) 12-14	**104**	**0.42**	**42%**
	c) 15-16	**8**	**0.03**	**3%**
	Marital status: (a)Unmarried (b)Married	**88**	**0.35**	**35%**

3	(c)Divorced/Separated	162	0.65	65%
			0	0%
4	Religion (a)Hindu	221	0.8	89%
	Muslim	13	0.5	5%
	Christan	3	0.1	1%
	other	13	0.5	5%
5	Family Monthly Income(a)			
	less than 30,000	150	0.6	60%
	30,000 - 50,000	88	0.35	35%
	50,001 and more	12	0.05	5%
6	Any family history of breast cancer:			
	(a) Yes	250	0.1	100%
	(b) No	0	0	0%
7	Dietary pattern: (a)Vegetarian (b)Non-vegetarian			
		68	0.27	27%
		182	0.73	73%
8	Previous knowledge exposure regarding breast cancer: (a)Through family members	100	0.4	40%
	(b)Through friends	93	0.37	37%
	(c)Through health care professionals	38	0.15	15%
	(d)Through mass media	20	0.08	8%
9	Relationship with the client:			
	(a) Daughter	113	0.45	45%
	(b) Sister	82	0.33	33%
	(c)Mother	55	0.22	22%
10	Source of information			
	Mass media	138	0.55	55%
	Health personnel	25	0.1	10%
	Neighbors	62	0.25	25%
	Others	25	0.1	10%

Among 250 samples, 144(58%) were between 21-30 years of age, 50(20%) were between 31-40 years of age and 55(22%) were between 41-50 years of age at present. Regarding age at menarche, 138(55%) were between 10-12years of age, 105(42%) were between 13-16 years of age and 2(3%) were above 17 years of age. In regard to family history of breast cancer, all the 250 (100%) of them had familyhistory of breast cancer. 93(37%) had through their friends, 38(15%) had through health care professionals and only 20(8%) of them

had through mass media. About Women aged (20 – 50 years) in selected colleges relationship with the patient, among 250 samples, 112(45%) were daughters to the patients, 20(33%) were sister and 55(22%) of them were mother.

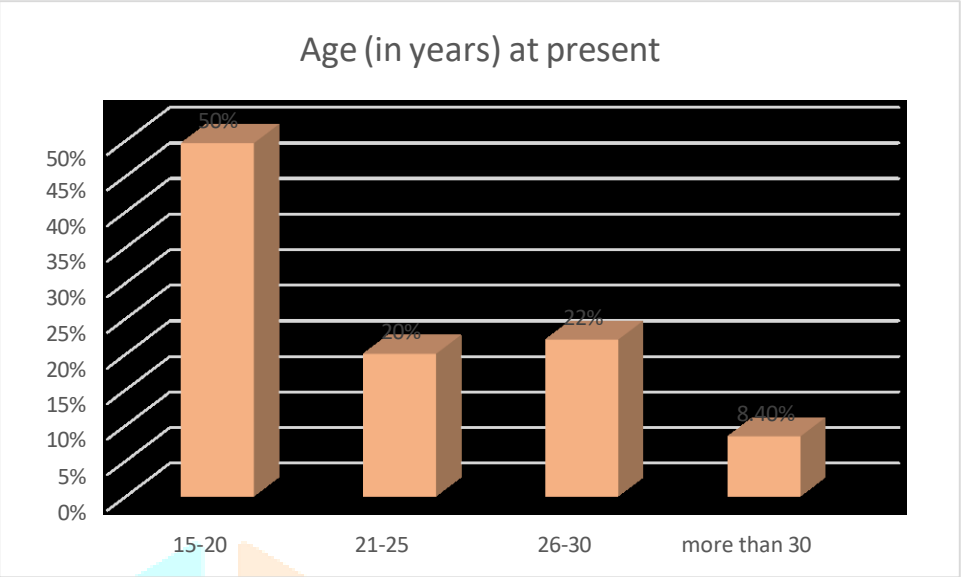

Figure: 01: Distribution of samples according to their age (in years) at present.

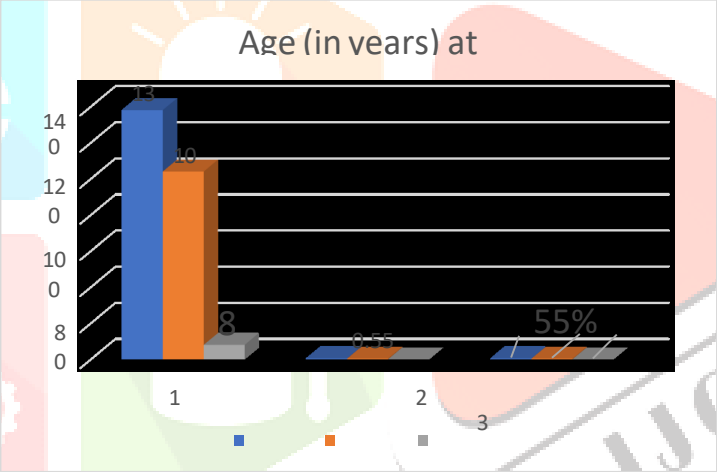

Figure: 02: Distribution of samples according to their Age (in years) at menarche

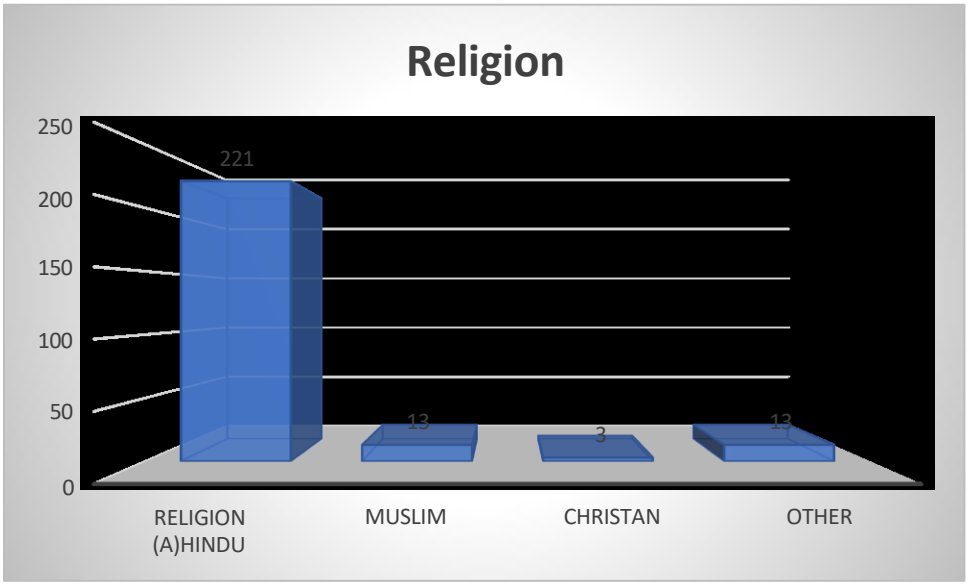

Figure: 03: Distribution of samples according to their Religion

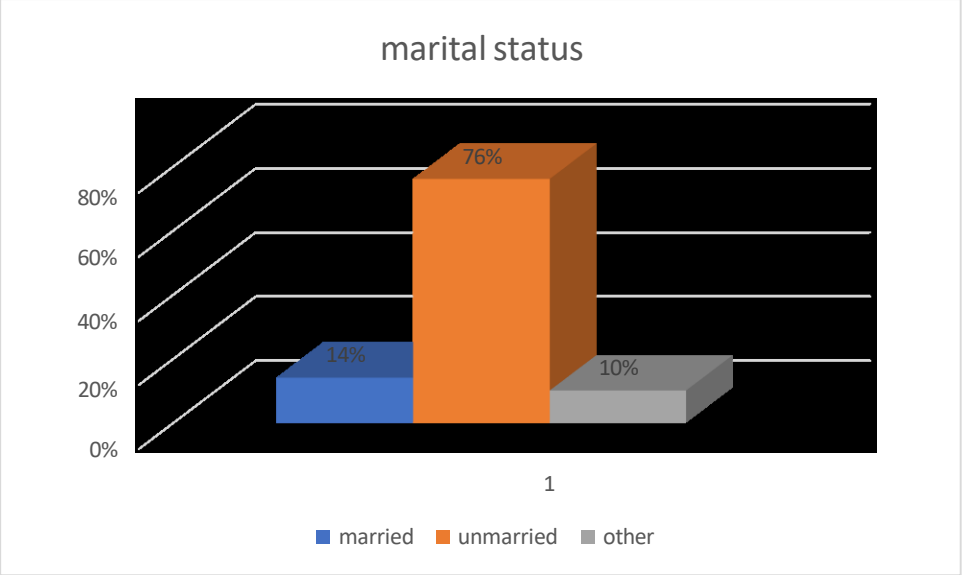

Figure: 0 4 : Distribution of samples according to their marial status.

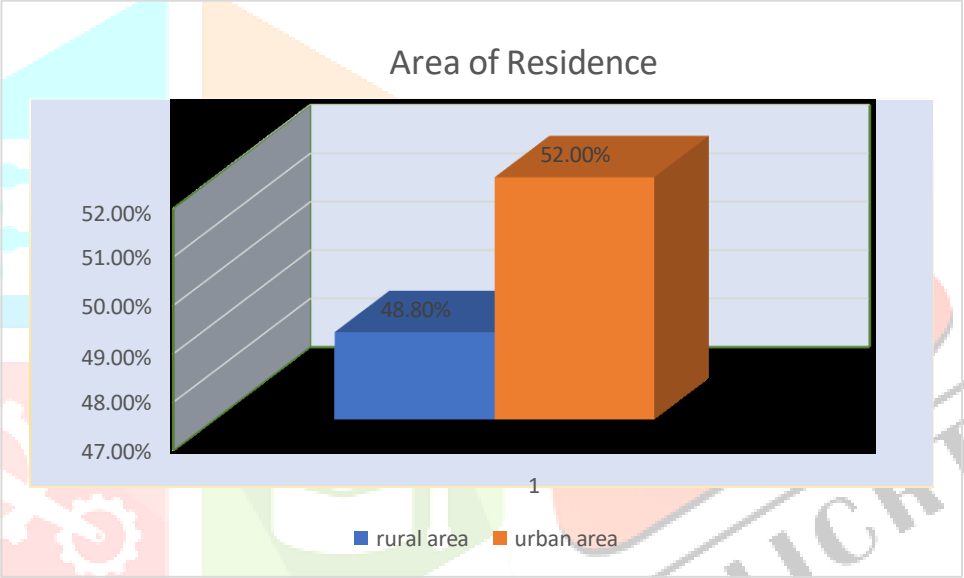

Figure: 0 5 : Distribution of samples according to their area of residence.

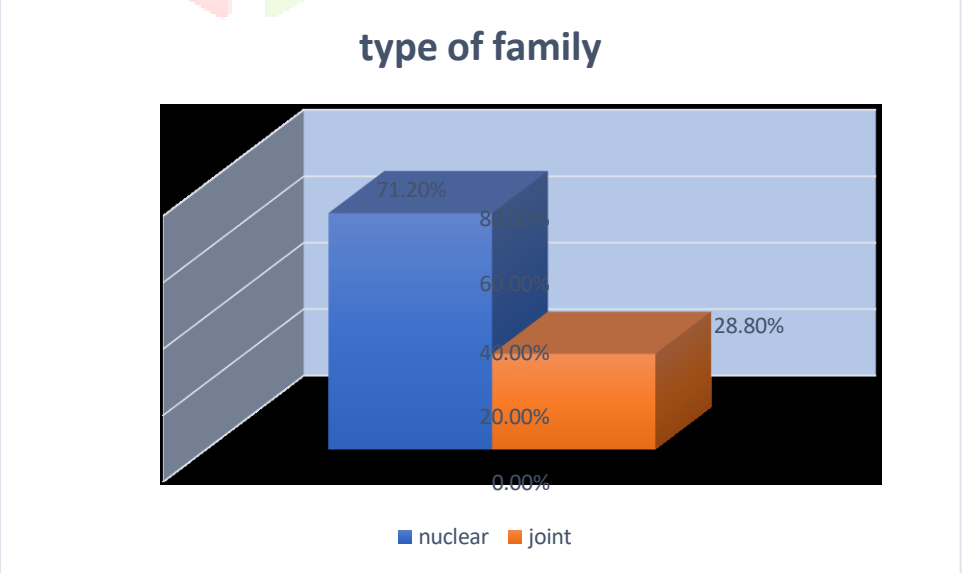

Figure: 06 : Distribution of samples according to their type of family

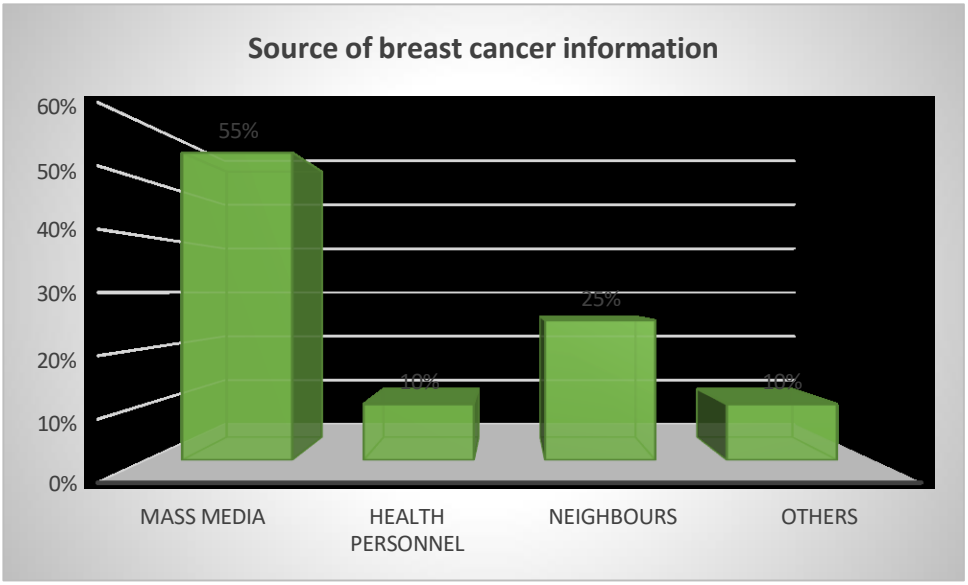

Figure: 07: Distribution of samples according to their Source of information

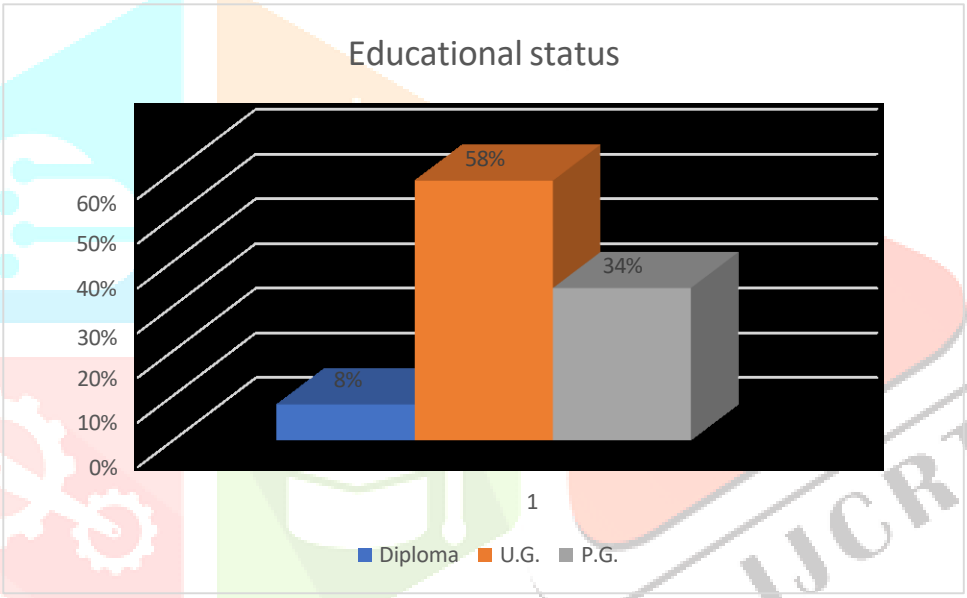

Figure: 08: Distribution of samples according to their educational status.

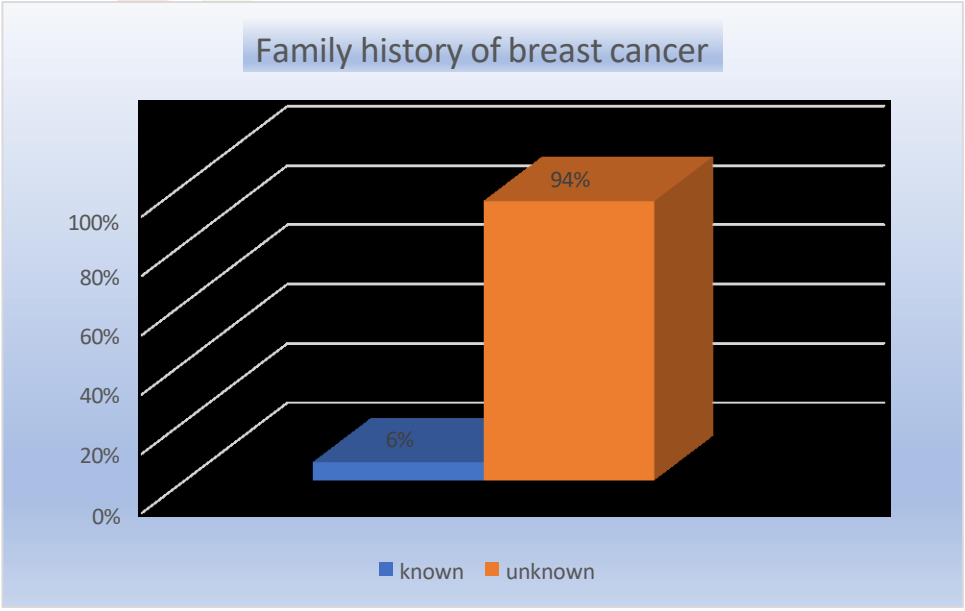

Figure: 09: Distribution of samples according to their family history of breast cancer

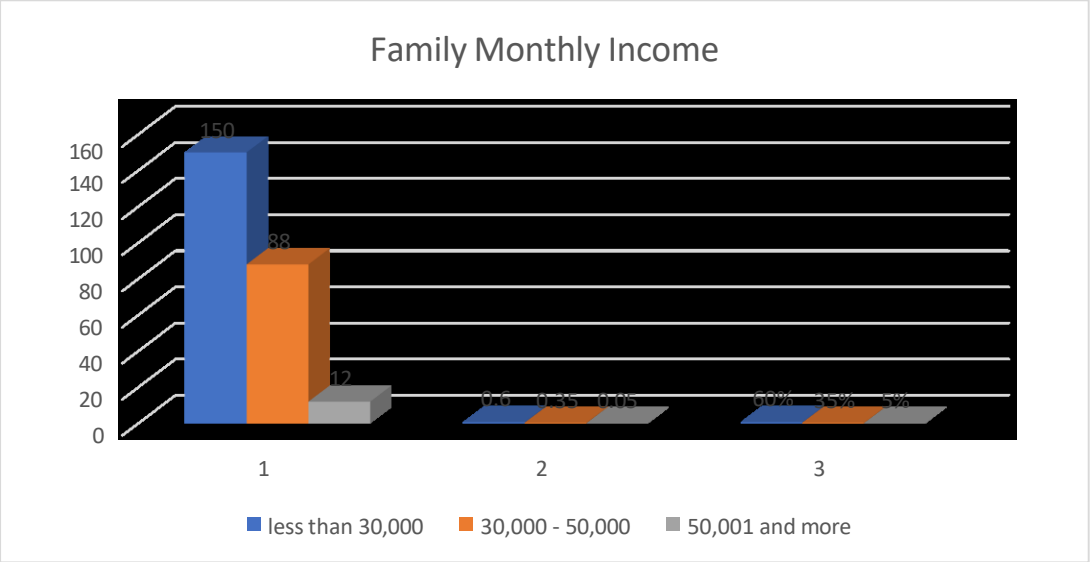

Figure: 10: Distribution of samples according to their Monthly family Income

SECTION – II

Description of samples according to the pretest and posttest level of knowledge, attitude and prevalence of risk factors on knowledge regarding breast cancer.

Table: 2: Description of samples according to the pretest and posttest level of knowledge, attitude and prevalence of risk factors on knowledge regarding breast cancer. (n=250)

Level of knowledge	Pre- test			Post- test		
	F	%	Mean	F	%	Mean
Inadequate knowledge	218	87%	0.87	0	0%	0
Moderate knowledge	32	13%	0.13	20	8%	0.8
Adequate knowledge	0	0%	0	230	92%	0.92

Table:3 Illustrates the pre-test and post-test level of knowledge, attitude and prevalence of risk factors among samples. In pre-test assessment of knowledge, attitude and prevalence of risk factors, no one had adequate knowledge. 32(13%) had moderate level of knowledge and 218(87.05%) samples had inadequate level of knowledge.

In case of post-test level of knowledge, 230(92%) out of 250 samples were acquired adequate level of knowledge, attitude and prevalence of risk factors, 20(8%) had moderate level of knowledge, attitude and prevalence of risk factors and no one had inadequate level of knowledge, attitude and prevalence of risk factors.

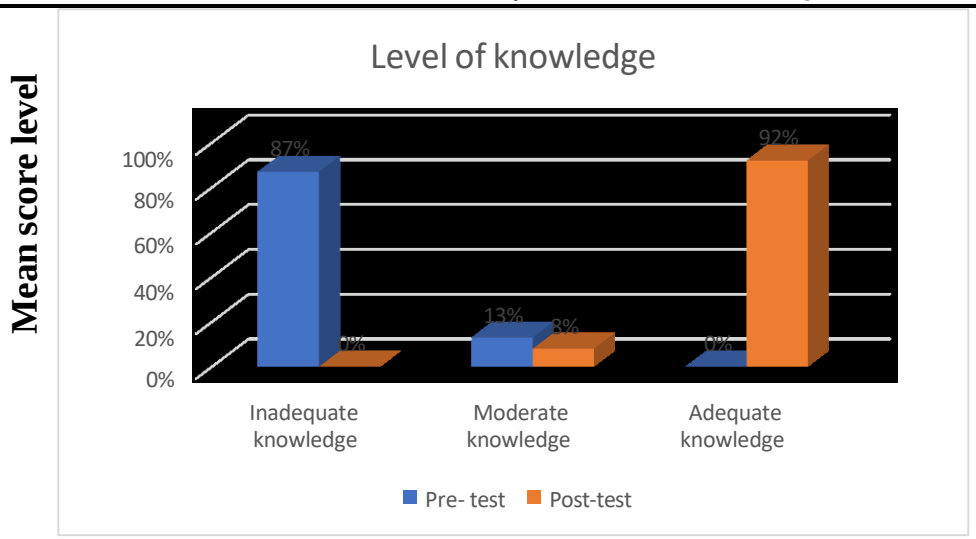

Figure:14. Distribution of samples according to their pre-test and post-test level of knowledge

SECTION – III

Comparison of pre-test and post-test level of knowledge, attitude and prevalence of risk factors among thesamples

Table: 3: Comparison of pre-test and post-test level of knowledge, attitude and prevalence of risk factors amongthe samples

S:No	Level of knowledge	Mean	Mean difference (MD)	Standard deviation (SD)	't' Value	Degree of freedom (df)
1.	Pre-test	9	11.3	2.34	*37.25	59
2.	Post-test	20.06				

***Significant at 0.05 level**

Table 4 depicts the comparison of mean pre-test and post-test level of knowledge and it also deals with mean difference (11.3) and standard deviation (SD=2.34) The obtained't' value (37.25) was significant at 0.05 level with the degree of freedom 59. This indicates that, there is significant difference between pre-test and post-test level of knowledge regarding knowledge regarding breast cancer among women aged (20 – 50 years) in selected colleges. The above findings reveal that the informational booklet had significantly improved the knowledge of Women aged (20 – 50 years) in selected colleges.

There is a significant difference between pre test and post test level of knowledge regarding breast cancer among women aged (20 – 50 years) in selected colleges. Hence, the research hypothesis H1 was accepted.

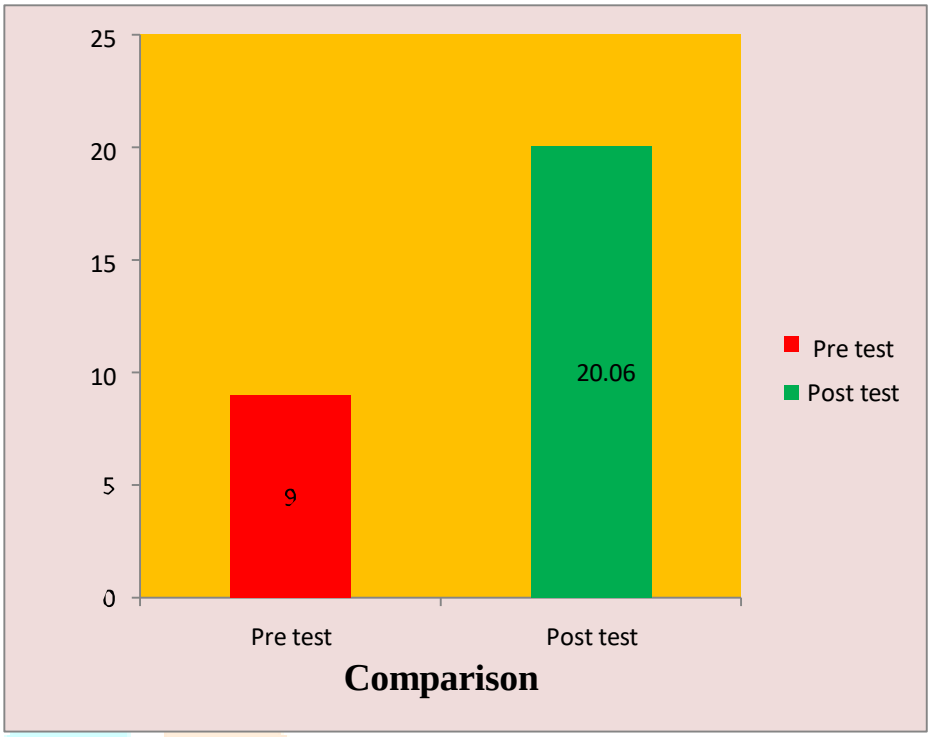

Figure: 15: Comparison of mean pre-test and post-test level of knowledge, attitude and prevalence of risk factorsamong samples.

SECTION: IV

Association between post-test knowledge, attitude and prevalence of risk factors with their selecteddemographic variables

Table: 4: Association between post-test knowledge, attitude and prevalence of risk factors with their selecteddemographic variables (n=250)

S:no	Demographic variables	pre-test knowledge		degree of freedom (Df)	Chi square Test
		above mean	below mean		
1	Age (in years) at present:				
	15-20	17	18		
	21-25	8	4		
	26-30	5	8		
	more than 30	1	1	2	2.0583#
2	Religion				
	(a)Hindu	15	18		
	Muslim	12	13		
	Christan	2	2		
	other	2	2		
				3	6.2714*
3	Marital status				
	married	19	11		
	unmarried	68	11		

	other	5	8	3	1.1818#
3	area of residence				
	rural area	16	19	1	2.114#
	urban area	12	9		
4	type of family				
	nuclear	22	22	1	0
	joint	8	8		
6	AGE IN YEARS AT MENARCHE:				
	10.0-11.0 yrs	16	9	2	1.3714 *
	12.0-14.0 yrs	12	19		
	15.0-16.0 yrs	3	0		
7	Source of breast cancer information			3	3.1114 *
	Mass media	19	12		
	Health personnel	13	8		
	Neighbours	3	0		
	Others	2	3		
8	educational status			2	3.4039 #
	Diploma	9	15		
	U.G.	15	8		
	P.G.	5	3		
9	family history of breast cancer			1	0
	known	30	30		
	unknown	0	0		
10	Family Monthly Income(a)				
	less than 10,000	2	2	3	3.2714 *
	10001-20000	14	14		
	20001-30000	2	2		
	300001 and more	14	14		

***Significant at 0.05 level #Not significant**

In order to find out the association between the post-test level of knowledge, attitude and prevalence of risk factors and selected demographic variables, chi-square test was used. Withregard to age, the obtained Chi-square value = 2.0538 at df (2) was notsignificant at 0.05 level. With regard to age in years at menarche, the calculated Chi-square value = 6.2714 at df (2) was significant at 0.05 level. Regarding marital status, the Chi-square value was 0.0732 at df (2) was not significant at 0.05 level. For the family history of breast cancer, the calculated Chi-square value was 0 at df (1) was not significant at
0.05 level. Regarding dietary pattern, the calculated Chi-square value = 0 at df
(1) was not significant at 0.05 level. For previous exposure, the calculated Chi- square value = 3.4039 at df (3) was not significant at 0.05 level. In case of relationship with the client, the calculated Chi-square value = 1.818 at df (2) was not significant at 0.05 level. Hence H2 was accepted.

Discussion:

The present study was designed to assess the effectiveness of Effectiveness of informational booklet on knowledge, attitude and prevalence of risk factors regarding breast cancer among women aged (20 – 50 years) in selected college at Bhopal.

To find out the effectiveness of Informational booklet, the investigator adopted pre- experimental one group pre-test post-test design and250 Women aged (20 – 50 years) in selected colleges were selected through purposive sampling technique.

Demographic Variables:

1. With regard to age, 144 samples (58%) were between 21-30 years of age, 12 samples (20%) were between 31-40 years of age and 13(21.6%) were between 41-50 years of age.
2. In case of age at menarche, majority 33 (55%) of the samples were between 10-12 years of age, 25 (42%) were between13-16 years of age and only 2(3%) were attained menarche above 17 years of age.
3. Regarding family history of breast cancer, all the 250 (100%) of them had the family history. With regards to dietary pattern, 16(27%) were vegetarians and 44(73%) were non-vegetarians.
4. Among 250 samples, 24(40%) of them had a previous knowledge, attitude and prevalence of risk factors exposure through family members, 93(37%) had through their friends, 38(15%) had through health care professionals and only 20(8%) of them had previous exposure through mass media.

The major findings of the study are discussed related to the formulated objectives, as follows.

The first objective was to assess the pre-test level of knowledge, attitude and prevalence of risk factors regarding breast cancer among women aged (20 – 50 years) in selected colleges.

In pre-test level of knowledge, none had adequate knowledge. 8(13.3%) had moderate level of knowledge and 52(87.05%) samples hadinadequate level of knowledge. The above findings show that more than half of the samples had inadequate level of knowledge.

Abduelmula. R. Abdul Karim et.al., (2015) undertook a questionnaire survey to assess the evaluation of breast cancer awareness among 166 pharmacy students at Sharjah. Samples were selected by convenient sampling technique. A validated questionnaire was used to conduct interview with each participant. The study reported that almost one quarter of the students had a family history of breast cancer. The investigator concluded that at the end of the study, the awareness of breast self- examination was improved among the participants. The findings of Abduelmula. R. Abdul Karim support the findings of the present study.

Soumya Thomas et.al, (2013) had done a survey approach with descriptive study to estimate the level of knowledge on breast self-examination among 250 rural Women aged (20 – 50 years) of reproductive age group (18- 45years) selected by non-probability convenient sampling method. Data was collected by administering structured knowledge questionnaire on breast self- examination and the collected data was analyzed by using statistical SPSS software. This study finding revealed that 1.66% of the Women aged (20 – 50 years) had very good knowledge, 3.33% of Women aged (20 – 50 years) had good knowledge, 53.33% of Women aged (20 – 50 years) had average knowledge and 41.66% of Women aged (20 – 50 years) had poor knowledge. The investigator reported that there is no significant association between the knowledge score with selected demographic variable. The findings of study done by Soumya Thomas similar to the present study.

The second objective was to evaluate the effectiveness of informational booklet on knowledge regarding breast cancer among women aged (20 – 50 years) in selected colleges.

In the present study, post-test level of knowledge assessment shows, 232(92%) out of 250 samples had adequate level of knowledge, 20(8%) had moderate level of knowledge and no one had inadequate level of knowledge. The obtained ‘t’ value (37.25) was significant at 0.05 level with the degree of freedom 59. This indicates that, H1-there is a significant difference between pre- test and post-test level of knowledge regarding knowledge regarding breast cancer among women aged (20 – 50 years) in selected colleges. Hence the research hypothesis H1 was accepted.

The present study results are supported by study done by Anju Thomas (2011). She had done pre-experimental study to assess the effectiveness of informational booklet on knowledge regarding early detection and prevention of breast cancer among 50 nun-sisters in selected convents at Mangalore. A sample was selected through purposive sampling technique. Data was collected by using structured knowledge questionnaire and analysis was done. The findings concluded that after the administration of informational booklet the knowledge was improved among the participants. The investigatorfelt that a practical application of SIM would create health awareness among the nun- sisters and thus reducing the risk of getting breast cancer.

The third objective was to find out the association between the pre-test level of knowledge and their selected demographic variables.

In order to find out the association between the pre-test level of knowledge and selected demographic variables, chi-square test was used. With regards to age (in years), the obtained Chi-square value = 2.0538 at df (2) was not significant at 0.05 level. With regard to age in years at menarche, the calculated Chi-square value = 6.2714 at df (2) was significant at 0.05 level. Regarding marital status, the Chi-square value = 0.0732 at df (2) was not significant at 0.05 level.

For the family history of breast cancer, the calculated Chi-square value= 0 at df (1) was not significant at 0.05 level. Regarding dietary pattern, the calculated Chi-square value was 0 at df (1) was not significant at 0.05 level. For previous exposure, the calculated Chi-square value was 3.4039 at df (3) was not significant at 0.05 level. In case of relationship with the client, the calculated Chi-square value = 1.818 at df (2) was not significant at 0.05 level. Hence H2 was accepted.

III. Acknowledgment

I am II year M.Sc. Nursing scholar take the privilege to extent our sincere thanks to all the respected persons who have extended their kindness in the completion of our studies.First of all, we thank God Almighty for his blessings that He showered on us which enabled us to complete our study successfully.I am indebted to give our thanks to the management for providing us with necessary facilities & equipment's for completing our research project. I extend our sincere thanks to **Mrs. Soney Toppo,** Principal, Career College of Nursing.I extend our heartfelt thanks to **Mr. Jobin John,** Vice Principal**,** Career College of Nursing who worked tediously & endurably for giving us guidance, support & help in each step of our research project & also for providing us with scientific guidance, valuable suggestions & meticulous supervision which enabled us to complete the study.

I am greatly obliged to our research guide **Mrs. Soney Toppo** Career College of Nursing for her guidance & support.

My due thanks & gratitude to all members of the faculty for their valuable suggestions, constructive criticism & support that enabled us to complete this study.

.

References

1. **[1]** Abduelmula R. Abdul Karim et.al., (2015). Evaluation of breast cancer awareness in Sharjals. Retrieved from: http://www.file.scirp.org
2. Ademola Lukman Adelekan and Elizabeth Ronam Edoni (2012). Knowledge, awareness and practice of breast cancer prevention in Nigeria. Retrieved from: www.iosrjournals.com
3. Al-Khasawneh.E.M et.al.,(2015). Breast cancer awareness and early detection practices in Oman. Retrieved from: http://oxfordjournals.com
4. American Cancer Society (2016).Use of combined method of mammogram and ultrasound to reduce the risk of dying from breast cancer. Retrieved from: http://www.cancerorg/CRI
5. Amudha.P (2010). Effectiveness of structured teaching programme on knowledge, attitude and practice of BSE for knowledge regarding breast cancer in Mylapore. Retrieved from: http://www.file.eric.ed.gov
6. Angel Rajakumari (2012). Effectiveness of structured education on knowledge regarding knowledge regarding breast cancer. Retrieved from: http://www.crdeep.com
7. Arkierupia Shadap (2014). Knowledge on breast cancer awareness and utilization of mammogram in Karnataka. Retrieved from: http://www.nitte.edu.in
8. Aswathy Sreedevi (2014). Awareness of Screening for breast cancer in Kerala. Retrieved from: http://www.apocpcontrol.org

9. Bit-Na Yoo et.al, (2012). An awareness and practice of BSE in Korea. Retrieved from: http://www.researchgate.net
10. Breast cancer guideline (2013). Modifiable risk factors. Retrieved from: http://www.topalbertadoctors.com
11. Breast cancer facts and figure (2016) Breast cancer statistical reports. Retrieved from: http://www.cancer.org
12. Canadian Cancer Society 2(2016). First degree relative doubles the risk of getting breast cancer. Retrieved from: http://www.cancer.ca

REFERENCES

1. **[1]** Abduelmula R. Abdul Karim et.al., (2015). Evaluation of breast cancer awareness in Sharjals. Retrieved from: http://www.file.scirp.org
2. Ademola Lukman Adelekan and Elizabeth Ronam Edoni (2012). Knowledge, awareness and practice of breast cancer prevention in Nigeria. Retrieved from: www.iosrjournals.com
3. Al-Khasawneh.E.M et.al.,(2015). Breast cancer awareness and early detection practices in Oman. Retrieved from: http://oxfordjournals.com
4. American Cancer Society (2016).Use of combined method of mammogram and ultrasound to reduce the risk of dying from breast cancer. Retrieved from: http://www.cancerorg/CRI
5. Amudha.P (2010). Effectiveness of structured teaching programme on knowledge, attitude and practice of BSE for knowledge regarding breast cancer in Mylapore. Retrieved from: http://www.file.eric.ed.gov
6. Angel Rajakumari (2012). Effectiveness of structured education on knowledge regarding knowledge regarding breast cancer. Retrieved from: http://www.crdeep.com
7. Arkierupia Shadap (2014). Knowledge on breast cancer awareness and utilization of mammogram in Karnataka. Retrieved from: http://www.nitte.edu.in
8. Aswathy Sreedevi (2014). Awareness of Screening for breast cancer in Kerala. Retrieved from: http://www.apocpcontrol.org
9. Bit-Na Yoo et.al, (2012). An awareness and practice of BSE in Korea. Retrieved from: http://www.researchgate.net
10. Breast cancer guideline (2013). Modifiable risk factors. Retrieved from: http://www.topalbertadoctors.com
11. Breast cancer facts and figure (2016) Breast cancer statistical reports. Retrieved from: http://www.cancer.org
12. Canadian Cancer Society 2(2016). First degree relative doubles the risk of getting breast cancer. Retrieved from: http://www.cancer.ca