ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PREVALENCE OF RISK FACTORS ON BREAST CANCER AMONG WOMEN AGED (20 – 50 YEARS)

DISSERTATION SUBMITTED TO

THE TAMIL NADU DR.M.G.R.MEDICAL UNIVERSITY

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IN PARTIAL FULFILMENT OF REQUIREMENT FOR THE AWARD OF

DEGREE OF

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A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PREVALENCE OF RISK FACTORS ON BREAST CANCER AMONG WOMEN AGED (20 – 50 YEARS) AT VELLANUR VILLAGE, THIRUVALLUR DISTRICT

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ABSTRACT

"Breast cancer is every women's risk" Cancer phobia is a prevalent condition and cancer of the breast is highly threatening women in any culture because breast is a symbol of sexuality and feminity. For more than 30 years breast cancer has been the most prevalent, the most feared, and the malignant disease with the highest mortality rate in women.

The most recent statistics from the American Cancer Society shows that women with breast cancer who are diagnosed and treated early have a 90% chance of cure. The treatment of breast cancer is an integrated approach with surgery, radiotherapy, chemotherapy and hormone therapy.

A study was conducted to assess the knowledge, attitude and prevalence of risk factors on breast cancer at Vellanur Village, Thiruvallur District, 2010 – 2011. The objective of the study was to assess the knowledge, attitude and prevalence of risk factor on breast cancer.

The conceptual framework adopted was based on Pender's Health Promotion Model. The study was conducted by adopting a descriptive research design. 300 samples who have fulfilled the inclusion criteria were selected by using non probability purposive sampling technique.

Structured interview questionnaire was used to assess the knowledge, attitude and prevalence of risk factors on breast cancer. Both descriptive and inferential statistics were used to collect data collected from the samples.

The analysis revealed a positive correlation ($r = 0.338$) at $p<0.01$ level of significance between knowledge and attitude, and negative correlation between knowledge and prevalence of risk factors, attitude and prevalence of risk factors.

CHAPTER – I

INTRODUCTION

Early symptoms, then are in reality nothing
But the cry from suffering organs,
Diagnosis is not the end, but the
Beginning of practices"

- Jean Martin Charcot

Women's health is universal health. Human society is a dynamic one. In that health is not an independent system. It is a subsystem in society and reflects the socio-economic, political and ideological system.

Historically the term, cancer meaning crab was given to neoplastic disease because certain cancer of breast resembled a crab with claw with growth embedded in the normal tissues. In women, cancer of the breast poses a threat to life. Cancer is considered as a major killing disease affecting people all over the world.

"Breast caner is every women's risk" Cancer phobia is a prevalent condition and cancer of the breast is highly threatening women in any culture because breast is a symbol of sexuality and feminity. For more than 30 years breast cancer has been the most prevalent, the most feared, and the malignant disease with the highest mortality rate in women.

The most recent statistics from the American Cancer Society shows that women with breast cancer who are diagnosed and treated early have a 90% chance of cure. The treatment of breast cancer is an integrated approach with surgery, radiotherapy, chemotherapy and hormone therapy.

The greater risk factors

The greater risk factor for developing breast cancer is gender (female). Between 2005 to 2007, 95% of new cases and 97% of breast cancer deaths occurred in women aged 40.

American Cancer Society

Research has shown that a number of other factors also increase a women's chances of getting breast cancer. These factors includes having a family history of cancer defects in one of two inherited genes, called BRCA-1 and BRCA-2 onset of menstruation at an early age and late onset of menopause. Other factors such as never experiencing child birth and the use of hormones also appear to a linked to increased risk of breast cancer. Recent studies also suggest that the use of alcohol, lack of exercise, obesity and high fat diets may play a role in developing breast cancer.

The Association of Breast Surgery at British Association of Surgical oncologists carried out an audit of breast cancer detected by screening in 2000-01 and found that the Nation Survival rate at five years was 96.4% (England, Wales & Northern Ireland.)

Familial breast cancer (FBC) which accounts for approximately 20% of all breast cancer cases occurs in patients who have one or more family members with breast cancer. FBC most likely occurs because of a shared genetic flow or shared environment risk factors among family.

BACKGROUND OF THE STUDY

Globally increasing number of women are reported to be dying from reproductive cancers (Asian Pacific Resource & Research Center for Woman, 2002).

Women are the first to feed human when the child is born. The first feed of human is mother's breast milk and the reservoir of this milk is female breast. Female breast has been regarded as the symbol of beauty, femininity, sexuality and motherhood. The most frequently encountered breast disorder in women are breast cancer, fibrocystic changes, fibro adenoma, intraductal papilloma and ductal ectasia (Breast Cancer Emedicine, 2006).

Cancer is a group of more than 200 disease characterized by uncontrolled and unregulated growth of cells. It is a major problem that occurs in people of all ethnicities. Although cancer is often considered a disease of aging, with the majority of cases (70%) diagnosed in those over the age of 55 years, it occurs in people of all ages. Although mortality rates from all cancer combined are on the decline. Cancer is the primary cause

of cancer death among women globally, responsible for about 3,75,000 deaths in the year 2000 (Wolma J Phipps, 2002).

Cancer incidence by site in female (Atlanta 2006, American Cancer Society).

Type	**%**
Breast	31
Cervix	12
Colon/Rectum	11
Uterus	6
Non-Hodgkin's Lymphoma	4
Melanoma (skin)	4

Breast cancer accounts for 16% of cancer deaths in adult women. Every 3 minutes a female is diagnosed to have breast cancer. Breast cancer causes the annual death of 502,000 lives (WHO Health Statistics, 2008). African Americans have the highest average annual death rate from all cancer compared to all other ethnicities, white have the 2nd highest. Cancer incidence rates for women are highest among whites followed by African Americans, Hispanics and Asian/Pacific disorder (SEER Cancer Statistics 2007).

According to American Cancer Society (2007), 1.3 million women will be diagnosed with breast cancer annually worldwide. About 4,65,000 die from the disease. The lifetime probability of developing breast cancer in developed countries is about 4.8% and in developing countries, the lifetime probability of developing breast cancer is about 1.8%.

National Cancer Institute (2007) estimated as follows:

From birth to age39 years, 1 women in 231 will get breast cancer (<0.5% risk)

From ages 40-59 years, the chance is 1 in 25 (4% risk)

From ages 60-79 years, the chance is 1 in 15 (nearly 20%)

The International Association of Cancer India Research (2005) projected that there would be 2,50,000 cases of breast cancer in India by 2015, A 1 to 3 increase per year. Currently, India reports roughly 1,00,000 new cases annually. There are also significant

regional variations in incidence rates. The overall rate is now estimated at 80 new cases per 1,00,000 population per year. But in Delhi, that rate is pegged at 146 per 1,00,000.

Incidence of breast cancer in major metropolitan cities of India per 1,00,000 women a year are given below.

(India National Newspaper, 2004).

Delhi	-	28
Mumbai	-	26
Chennai	-	24
Bangalore	-	20
Kolkata	-	15

According to the international agency for research on cancer, which is part of WHO, there were approximately 79,000 women per year affected by breast cancer in India in 2001 and over 80,000 women in 2002 (National Cancer Registry, 2002).

The mean age of occurrence is about 42 years in India is compared to 53 years in the white women. There is a rapid increase in the incidence between the age 35 to 50 years and a secondary risk in frequency after 65 years of age and with that situation the survival rates goes down to as low as 0 to 25%, whereas, when early lesions are operated the survival rate improves to almost 9% in addition to good cosmetic results (Park K, 2006).

Breast cancer occupies 71% out of total cancer mortality among Indian women. Each women's breast cancer risk may be higher or lower, depending upon several factors, including modifiable and non-modifiable risk factors. Modifiable risk factors are diet, obesity, hormone, parity, age at marriage, and exposure to radiation. Non-modifiable risk factors are family history, age, sex, and prior breast biopsy (American Journal of Epidemiology 2007).

Incidence By Ethnic Group

All women are at risk for developing breast cancer. The older woman is having a greater chances of developing breast cancer. Approximately 77% of breast cancer cases occur in women over 50 years of age.

According to the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute:

- White, Hawaiian, and African-American women have the highest incidence of invasive breast cancer in the United States (approximately four times higher than the lowest group).
- Korean, American Indian, and Vietnamese women have the lowest incidence of invasive breast cancer in the United States.
- African-American have the highest death rate from breast cancer and are more likely to be diagnosed with a later stage of breast cancer than White women.
- In the age groups, 30 to 54 and 55 to 69 years, African-American women have the highest death rate from breast cancer, followed by Hawaiian women, and white non-Hispanic women. However, in the 70 year old age group, the death rate from breast cancer for white women is higher than for African –American.

Incidence Rates by Race	
Race/Ethnicity	**Female**
All Races	127.8 per 100,000 women
White	132.5 per 100,000 women
Black	118.3 per 100,000 women
Asian/Pacific Islander	89.0 per 100,000 women
American Indian/Alaska Native	69.8 per 100,000 women
Hispanic	89.3 per 100,000 women

Death Rates by Race	
Race/Ethnicity	**Female**
All Races	25.5 per 100,000 women
White	25.0 per 100,000 women
Black	33.8 per 100,000 women
Asian/Pacific Islander	12.6 per 100,000 women
American Indian/Alaska Native	16.1 per 100,000 women
Hispanic	16.1 per 100,000 women

According to the 2004 to 2005 reports (this is the latest, no updates after 2005), breast cancer is the most common cancer in most cities in India, followed by Cancer of the cervix, whereas in the rural areas, cancer of cervix is more common, with breast cancer being the second. According to this report, the follwoing are the figures for some of the cities and towns in India, with the figures indicating breast cancer as percentage of all cancers in women (The figures in parentheses indicate the age adjusted incidence rates):

Bangaluru 26.2% (30.9%) (Just to explain, this means that in Bangaluru, out of all women suffering from cancer, 26.2% are suffering from breast cancer. It means that practically, one out of four women developing cancers is suffering from breast cancer.

Barshi 15.5% (09.4%), Bhopal 26.0% (24.6%), Chennai 28.3% (33.0%), Delhi 26.8% (31.4%), Mumbai 28.7% (29.3%), Ahmedabad District 21.7% (09.2%) and Kolkata 26.8% (28.6%)

SIGNIFICANCE AND NEED FOR THE STUDY

Tomorrow's cancer is preventable today. Today the breast cancer is the foremost cancer killer in women all over the world.

Breast cancer refers to a group of malignant disease that commonly occurs in the female breast. One in every 8 women is expected to develop breast cancer. In India, the incidence is definitely less but still it possesses a challenge to the medical professional and society at large in our country because of multiple risk factors. In a comparative study conducted by Budakog found that theoretical education on breast cancer and BSE (Breast Self Examination) education on breast cancer and BSE training in the educated women even illiterate is highly effective [Department of Public Health, Turkey, m2007) 95.

World Wide, 1.05 million new cases have been reported in the year 2001 (ICME Bulletin 2003). The incidence rate of breast cancer for urban Indian women is 18 to 25 per 1,00,000 where as for Indian rural women it is 8.6 per lakh. Due to lack of awareness and poverty, even after knowledge of the presence of breast lump, the patients comes very late for treatment.

American Cancer Society (2000)

Shanta .V et al (2008) conducted a retrospective observational study to elicit the outcome of the therapeutic strategy of concurrent new adjuvant chemo radiotherapy protocol for locally advanced breast cancer. Primary tumor down staging was observed in 45%and nodal down staging in 57.5%.the disease free survival rate of nodal down staging patient at 5,10,15 years was 75%.65%.and 58%.respectively, the survival was seen among those who were tumor and node negative postoperative.

Trent ham Detz, A. et al., (2007) conducted a population based case control study of women living in Wisconsin. Smoking history and other risk factor information were collected through structured telephone interview, in multivariate models, the or for breast carcinoma in situ among currents smokers was o.s then findings suggested an inverse association between current smoking and risk of breast carcinoma in situ among women undergoing breast cancer screening.

Luckmanm and S. Oreson (2005), in his study explained that breast cancer is the leading cause of death in women between age 30 to 44. It is also the leading cause of cancer deaths in women between ages 35 to 74.

United States Cancer Statistics (2004) reported that the incidence and mortality of breast cancer were 1,86,772 women and 40,954 women respectively. It is estimated that 2008 about 1,82,460 new cases of invasive breast cancer will be diagnosed among women in the United States. Women living in North America have the highest rate of breast cancer in the world. At this time there are about 2.5 million breast cancer survivors in United States. In addition to invasive breast cancer, Carcinoma in sites (CCS) will account for about 67,770 new cases in 2008.

West, D.S etal (2003) conducted a case control study to asserts the impact of a family history of breast cancer on screening practices and attitudes in low income, rural African American women aged 750 who had not had a mammogram in the last 2 years. Neither knowledge of a positive family history nor perceived relative risk of breast caner as associated with either increased or decreased early detection practice among these low income, rural African American women who have underused mammography.

Patel, AV, et al, (2003) analyzed data from a population based case control study conducted in Los Angeles and findings of the study suggest that exercise activity may among women without a family history of breast cancer.

Lane ,A et al.,(2003) of University of Cincinnati college of nursing, USA found 4 CNS'S for a project to increase breast cancer screening practices knowledge of breast cancer risk factors for women in 4 medically undeserved rural countries. The sphere of influence for these 4 CNS'S included rural women, Nursing personnel and organizational network.

The major influence on breast cancer risk appear to be certain reproductive factors, body size, obesity, alcohol, physical activity, exogenous hormones (oral representatives, hormone replacement therapy) and fatty diet prevention health and the response of the individual to monitor her state have not always been given sufficient attention

Neise, C. et al., (2001), conducted a correlation study on risk perception and psychological strain in women with a family history of breast cancer at Germany. Among the women of the study group, a family history of breast cancer did not always co-relate with the subjects perception of an increased risk of contracting the disease compared.

Gilliland L.R. et al., (2001) conducted a comparative study on family history and risk of breast cancer in Hispanic and non-Hispanic women, in this study 712 women with breast cancer and 844 controls were included and the study found that Hispanic women had higher risk estimates for a positive family history than non-Hispanic white women; however the difference were not statistically significant result indicates that Hispanic women with a family history of breast cancer are at increased risk of breast cancer.

TITLE

Assessment of knowledge, attitude and prevalence of risk factors on breast cancer among women aged (20 – 50 years).

STATEMENT OF THE PROBLEM

A study to assess the knowledge, attitude and prevalence of risk factors on breast cancer among women aged (20 – 50 years) at Vellanur Village, Thiruvallur District, 2010-2011.

OBJECTIVES

1. To assess the knowledge and attitude regarding breast cancer among women aged (20 – 50 years).
2. To assess the prevalence of risk factors on breast cancer among women aged (20 – 50 years).
3. To correlate the knowledge and attitude on breast cancer.
4. To correlate the knowledge with prevalence of risk factors.
5. To correlate the attitude with prevalence of risk factors.
6. To associate the knowledge and attitude on breast cancer with the demographic variables.
7. To associate the prevalence of risk factors on breast cancer with the demographic variables.

OPERATIONAL DEFINITION

Knowledge

Refers to the awareness and ability of the women to answer to the questions regarding the breast cancer.

Attitude

Refers to the opinion or feelings of the women regarding the breast cancer.

Prevalence of Risk Factors

Refers to one or more factors contributing to the occurrence of breast cancer.

Family members suffered from breast cancer (1° – Mother, Sister), Menarche attained below 12 years, nulliparity First pregnancy above 30 years, Avoiding breast

feeding, Consuming alcohol, Taking high fat diet., Smoking, Exposure to radiation, Any hormonal therapy after menopause, and intake of oral contraceptives.

Breast Cancer

Refers to uncontrolled and unregulated growth of cell in the breast.

VARIABLES OF THE STUDY

The variables are the characteristics that vary among the subjects being studied.

Research Variables

It includes knowledge, attitude and prevalence of risk factors.

Demographic Variables

It includes age, religion, marital status, age at marriage, parity, education, occupation, monthly family income and source of information

ASSUMPTIONS

1. Middle aged women may have some knowledge regarding breast cancer.
2. Middle aged women may have some attitude regarding breast cancer.
3. Middle aged women may have risk factors.

NULL HYPOTHESIS

H_{01}: There is no significant relationship between knowledge and attitude on breast cancer.

H_{02}: There is no significant relationship between knowledge and prevalence of risk factors on breast cancer.

H_{03}: There is no significant relationship between attitude and prevalence of risk factors on breast cancer.

DELIMITATIONS

1. The study was delimited to 4 weeks of data collection.
2. The study was delimited to Vellanur Village.

PROJECTED OUTCOME

1. The identification of knowledge and attitude regarding risk factors of breast cancer will help the nurses to take meticulous actions in advance and motivate the people about the prevention of breast cancer.
2. The findings would provide an insight regarding areas where the people lack the knowledge on development and prevention of breast cancer and this findings can help to plan for health education by issuing pamphlets.

SUMMARY

This chapter deals with the background of the study, significance and the need for the study, title and statement of the problem, objectives, variables, assumptions, null hypothesis, operational definitions, delimitations of the study, and projected outcome.

ORGANIZATION OF THE REPORT

The following chapter contains

Chapter – II - Review of literature and conceptual framework.

Chapter – III - Methodology.

Chapter – IV - Analysis and interpretation.

Chapter – V - Discussion.

Chapter – VI - Summary, implications, recommendations and limitations

This is followed by reference and appendices.

CHAPTER – II

REVIEW OF LITERATURE

Review of literature is a systematic search of published work to gain information about a research topic (Polit and Hungler, 2006). Conducting a review of literature is challenging and enlightening experience. Through the literature review, researcher generates a picture of what is known about a particular situation and the knowledge gap that exists between the problem statement and the research subject problem and lays a foundation for the research plan.

The present literature review was based on an extensive survey of journals, books and international nursing indices. A review of literature relevant to the study was undertaken, which helped the investigator to develop deep insight into the problem and gain information on what has been done in the past.

Part – I **Review of literature**

Section A **:** Knowledge and attitude on breast cancer

Section B **:** Prevalence and incidence of risk factors

Section C **:** Screening for breast cancer

Section D **:** Treatment and prevention of breast cancer

Part – II **Conceptual framework**

A. KNOWLEDGE AND ATTITUDE ON BREAST CANCER

Elsie KM, et al., (2010) 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 cross-sectional 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 as knowledge, 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., (2010), 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 of breast cancer constitute an at-risk group which adhering to preventive screening guidelines could substantially reduce breast cancer mortality.

Calik KY, et al., (2009), 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..,(2008), conducted a cross sectional study to assess the awareness of breast cancer and cervical risk factors and screening behaviours among nurses in rural

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 (2003), 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.

Janda M. et.al.., (2000), 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.

B. PREVALENCE AND INCIDENCE OF RISK FACTORS ON BREAST CANCER

Yeole, B.B et al,(2006) conducted a descriptive study to find the geographic variations in cancer incidence and its pattern in urban Maharashtra. Data collected by Mumbai, Poona, Nagpur and Aurangabad population based cancer registers reported age specific cancer incidence rates showed increasing trend with increasing age ins all that 4 population. The curves for Mumbai, Poona, Nagpur are closed together with fluctuations indicating similarities n the rise. Among females breast, cervix, ovary oesophagus, mouth & leukemia's occupy places in 10 leading sites.

Age and parity as risk factors

Breast cancer refers to a group of malignant disease that commonly occur in the female breast. One in every 8 women is expected to develop breast cancer. In India the incidence is definitely less but still it possess a challenge to the medical professional.

Palmer, S.R et..,(2003), 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.,(2000), wished to assess the relation of induced abortion to the subsequent incidence of breast cancer among parous women. The risk of breast cancer was not 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.

Family history, race, ethnicity as risk factors

Syamla V .et al., (2007), conducted a case control study to identify the genetic heterogenicity, prevalence and frequently of germline mutuation od BRCA2 gene in hereditary 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.,(2003), 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.

Hormone, oral contraceptive, menopause and breast cancer

Nyante S.J et al.,(2008), 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 does not vary strongly by histologic subtype.

Chleboweki R.T(2007), conducted a cohort study on producing risk of breast cancer 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-positive but not ER-negative breast cancers.

Folger S.G (2007), conducted a case control study to estimate breast cancer risk associated with short term(less than 6 months) oral contraceptives use and explore variation in estimates using characteristics and medical, menstrual and reproductive history and the overall result revealed that short term oral contraceptives use was not associated with breast cancer risk. However significant interaction between short term use and menopausal women associated with shot term use.

Tewari .M (2007), conducted a quasi experiment study to assess the estrogen and progesterone receptor status in breast cancer affected females by effect of oral contraceptives pills and hormone replacement therapy at Varanasi, India and significantly more ER positive tumor was found in both pre- menopausal and post menopausal users compared to non-users respectively.

Fat, Obesity smoking alcohol and breast cancer

Lee, S.K et al.,(2008), conducted a correlation study on body mass index and cancer risk in Korean men and women and found for both sexes the average baseline BMI was 23.2 kg/m2 and the association of risk for all cancer with BMI was positive. Obese men were at increased risk for developing the following cancers: Stomach, colon, liver gall bladder. Obese women were at increased risk for developing liver cancer pancreatic cancer and breast cancer among women aged=60 years old. Rising obesity in Asian population raises concern that increasing number of avoidable cancer cases will occur among Asians.

Mathew A., et al.,(2008), conducted a multi- center case control study at the regional cancer center, Trivandrum and in 3 cancer hospital in Chennai during 02-05 and reported that women BMI greater than 25 kg/m2, waist size greater than 85cm and hp size>100cm was significantly by her among urban than rural women, large body size at age 10 and increased BMI were associated with pre-menopausal breast cancer risk.

Trentham Dietz, A et al., (2007), conducted a population based case control study of women living in Wisconsin. Smoking history and other risk factor information were collected through structured telephone interview, in multivariate models, the or for breast carcinoma in situ among current smokers was 0.8 then findings suggested an inverse

association between current smoking and risk of breast carcinoma in situ among women undergoing breast cancer screening.

Binukumar,B. et al., (2005), conducted a case control study to assess the association between dietary fat and risk of breast cancer. Increased assumption of total fat and saturated fat were found to be positively associated with the development of breast cancer.

Anderson et.al (2004), in their study on community friends in the early detection of breast cancer at Wisconsin, the rates of early detection of breast cancer was measured by taking into account the number of cases registered as breast carcinoma in situ from population based tumour registry during 1982 to 1998, the results of the study revealed that the breast carcinoma in situ was 5 times greater in later period (1994 to 1998 26%) when compared with early period (1980 to1998, 13.9%) further the study findings also revealed that communities with lower level of income, education and urbanization lacked in early detection of breast cancer.

Carpenter, C.L et al., (2003), conducted a large population based case control study conducted in Los Angeles country & found that body mass index and exercise activity , both modifiable risk factor for breast cancer, seen to have differential effects depending on women's family history of breast cancer.

Risk assessment and breast cancer

Sussner KM, et al (2010), conducted a study on interest and beliefs about BRCA genetic counseling among at-risk Latinas in New York City. A two-phase pilot study was conducted to examine interest, barriers and beliefs about BRCA genetic counseling among at-risk Latinas in New York City and explore the potential for developing a culturally-tailored narrative educational tool for use in future studies. Phase 1 included quantitative telephone interviews (N = 15) with bilingual participants with a personal diagnosis at a young age and/or family history of breast and/or ovarian cancer. Quantitative results informed development of a narrative prototype educational presentation viewed by a subset of participants (N = 10) in Phase 2 focus groups. Despite barriers, including lack of awareness/knowledge, concerns related to learning cancer risks of family members, and concerns about cost/health insurance, participants reported positive attitudes, beliefs and

interest in learning about BRCA genetic counseling. Further, significant increases in knowledge were demonstrated from pre-post presentation ($p = 0.04$). There is an unmet need to educate at-risk Latinas about BRCA genetic counseling. Culturally-tailored educational materials including narratives may increase knowledge about BRCA genetic counseling among this underserved group.

Crepeau A.Z (2008), conducted a descriptive study on a accuracy of personal breast cancer risk estimation in cancer free women during primary care visits and considering their lifetime breast cancer risk, 49% of women perceived their risk to be low, 35% average and 11% high compared to Gail model lifetime risk scored 162% of women were inaccurate and underestimated or overestimated risk.

Bowen P.J et al., (2004), found that breast cancer risk counseling improves women's functioning which implies that counseling of her people gave the opportunity to relieve their distress & improve the ways in which they could manage their health issues.

Sabastino S.A (2004) conducted a case control study on women aged 41-70 years without a cancer history to assess the association of Gail risk scores with screening and cancer risk perception. In nationally representative sample, 15.7% of women had in creased breast carcinoma risk using Gail model. High risk women perceived higher cancer and more often received screening.

Stacey D et al., (2002), conducted a study in which woman under age 50 (n=54) wanted options to lower risk and hormone replacement therapy, older women (n=43) wanted information on risk of breast cancer lifestyle options breast cancer screening and chemoprevention. More than 75% of all women wanted information to help them to make decisions on beast cancer prevention options benefits and risks. The satisfaction of overall survival rate was 95% and the metastasis free survival rate was 82.8% cosmetics and favourable in 82% of cases preoperative radiotherapy resulted in worse cosmetic than post operative therapy.

Veronesi U. et al (2002), conducted a study 20 years of follow up women enrolled in a randomized trail to compose the efficiency of radial mastectomy with that of breast conserving surgery from 1974 to 1980, 701 women with breast cancer measuring not more

than 2cm in diameter were randomly assigned to undergo radical mastectomy (349 patients) breast conserving surgery with radiotherapy (352 patients). 30 women in the group that underwent breast conservative therapy had a recurrent of tumour in the breast whereas 8 women in the radical mastectomy group had a local recurrence (p less than 0.001).

C. SCREENING FOR BREAST CANCER

L, taker D Tomolo A, (2007), conducted a cross sectional survey to find the association of contextual factors and breast cancer screening and concluded that contextual characteristics independently associated with BCS identify areas in which women are at increased risk for delayed breast cancer diagnosis.

Krishna B et al.,(2003), assessed the oncological and cosmetic outcome in omen with breast carcinoma who were treated with breast conserving therapy using oncoplastic technique with concomitant symmeterization of the centre lateral breast. Mean hit of excised material on the tumour five year local recurrence rate was 9.4%.

Costa. L.S. et al, (2002), conducted on observational retrospective co-host study among 106 patients with breast cancer treated with neo adjuvant, adjuvant and palliative chemotherapy. Findings shows that women with breast cancer who underwent adjuvant, neo adjuvant chemotherapy gained weight. Whereas meta static cancer patient probably lost weight during palliative chemotherapy.

Verkooijen H.M et al (1999), found that most ductal carcinoma in situ cases (62%) were disconnected by mammography screening. Ninety women (78%) had breast conserving surgery 18 women (16%) mastectomy and 7 (6%) bilateral mastectomy. 8(7%) had tumor positive margins 25% women with breast conserving surgery had no radiotherapy, they had radiotherapy after mastectomy less than 50% underwent breast reconstruction after mastectomy. Recommendation are made to increase quality of care in particular to prevent auxiliary is desertion or bilateral mastectomy and to increase the use of radiotherapy after breast conserving therapy.

Budden (1998), Reported in her study on registered nurses breast self examination practice and teaching to female client that the breast is common primary site of malignant tumour affecting the women health stated that in 1990, more than 7000 new cases of

breast cancer were diagnosed in Australia our of which 2,000 women were below the age of 50 years had affected approximately one in every 13 Australian women per year. But the incidence was lower when compared to U.S.

Danis (1997), conducted largest study involving 1,708 women who had undergone a mastectomy, Aarhus University Hospital in Aarhus and she found that 48 percentage of women who received radiation plus the drug combination of cyclophosphamide, methotraxte and fluorouracil (CMF) were still alive ten years & shows no signs of cancer.

D. TREATMENT AND PREVENTION OF BREAST CANCER:

Rachel Schiff ,et al., (2003), conducted a study on advances in breast cancer treatment and prevention. Intensive basic and clinical research over the past 20 years has yielded crucial molecular understanding into how estrogen receptor act to regulate breast cancer and has led to the development of more effective, less toxic and safer hormonal therapy agents for breast cancer management and prevention. Selective potent aromatase inhibitors are now challenging the hitherto gold standard of hormonal therapy, the selective estrogen-receptor modulator tamoxifen. New selective estrogen receptor modulator such as arzoxifene, currently under clinical development, offer the possibility of selecting one with a more ideal pharmacological for treatment and prevention of breast cancer.

Metacalfe, K.A (2002), conducted a descriptive study on breast cancer risk perception among women who have undergone prophylactic bilateral mastectomy and found the women estimated that their lifetime risk of developing breast cancer before surgery was on average 76% and after surgery was 11.4% women who undergo prophylactic bilateral mastectomy had an exaggerated perception of their breast cancer risk before surgery.

Nzarubary, (1999), stated that control of breast cancer using health education can be carried out at gross root level by the health workers through various clinics such as matenal and child health clinics. This result can be exploited to other cancer where causes are not known and cure is not there.

Chen S.C et al.,(1999), conducted prospective study related to timing of shoulder exercise after modified radical mastectomy in that, one hundred sixteen pendulum, wail climbing and pulley exercises beginning including post-operative day one hundred fifteen patients in the later group patients did the same after all the drains were removed the finding that, upper arm exercise can start after the drains in the axils re removed. The delay does not limit the shoulder function at 6months after modified radical mastectomy.

PART – II

CONCEPTUAL FRAMEWORK

A conceptual framework or a model is made up of concepts, which are the mental images of the phenomenon. It offers framework of prepositions for conducting research. These concepts are linked together to express the relationship between them. A model is used to denote symbolic representation of the concepts.

A conceptual framework is interrelated concepts on abstractions that are assembled together in some national scheme by virtue of their relevance, to a common theme. It is a device that helps to stimulate research and the extension of knowledge by providing both direction and implication (Polit and Hungler, 1995).

This section deals with conceptual framework adopted for the study. A conceptual framework or model provides the investigator the guidelines to proceed in attaining the objectives of the study based on a theory. It is a schematic representation of the steps, activities and outcomes of the study.

Based on Pender's Health Promotion Model (1987)

The Based onPender's Health Promotion model is adopted to this study. This model seeks to increase the individual's level of well-being. The model focuses on modifying factors, cognitive factors and likelihood of participation in health promotion behaviour.

This model is used to predict likelihood of person engaging in health promoting behaviours. The cognitive factors reflect on individual's being, additional modifying factors influencing the way a person perceived the benefits and barriers of health action, which influence the person's likelihood of action.

As the investigator aimed at assessing the knowledge, attitude and risk factors on breast cancer among the people, the Pender's Health Promotion model was found suitable to assess the knowledge of the women of their attitude and risk factors.

Cognitive Factors

It includes the Importance of Health, Perceived control of Health, Perceived self efficiency, Health Status, Perceived benefits of health promoting behaviour, Perceived barriers to health promoting behavior. Which motivates the women to take or prefer an action to over come their existing problem.

Modifying Factors

Individual perception about knowledge, attitude and risk factors on breast cancer is affected by modifying factors like demographic factors such as age, religion, educational status, family income, type of family, type of marriage, marital status, age at marriage, parity, occupation, income and source of information. Biological factors, Interpersonal characteristics, Situation factors, behaviour factors.

Health Promoting Behaviour (Likelihood of Action)

The likelihood of action of this study is the outcome of the forces of modifying factor and cognitive factor result in the health outcome in terms of satisfied and a healthy life or unsatisfied and unhealthy life.

On this model, the investigator interacts with the subject to assess the knowledge and attitude on breast cancer. The outcome of this could be adequate or inadequate knowledge and favorable or unfavourable attitude, no risk factors or high risk factors. Those with adequate knowledge and favourable attitude enhance the likelihood of action and this will promote optimum healthy life by compliance.

On the other hand, those who have inadequate knowledge and unfavourable attitude high risk factors on breast cancer results in poor likelihood which will add to unhealthy life the researcher provides pamphlet and incidental health teaching to performance of breast self examination and screening an optimum healthy and a satisfied life.

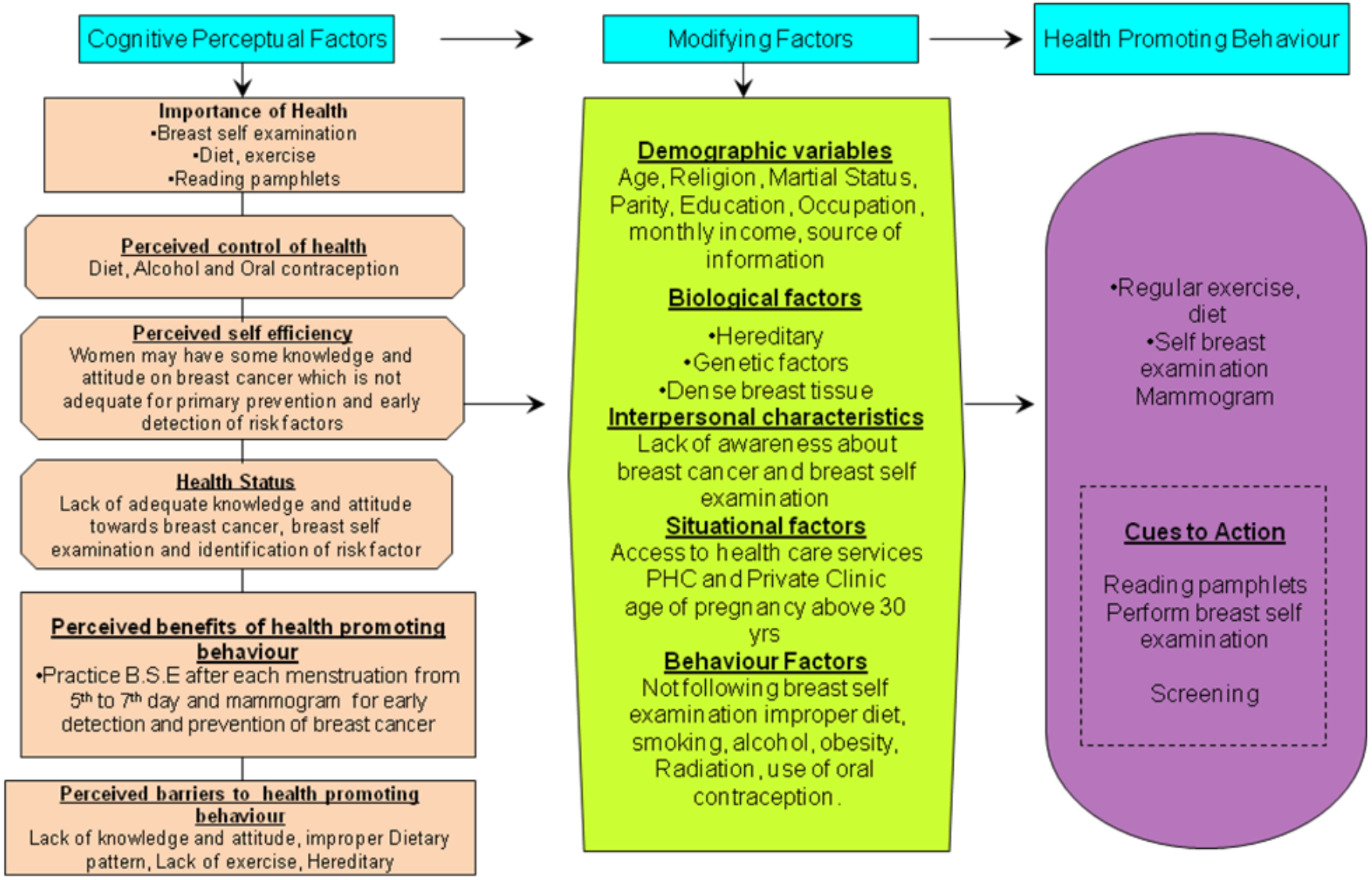

Fig 1: BASED ON PENDER'S HEALTH PROMOTION MODEL (1987)

CHAPTER – III

RESEARCH METHODOLOGY

This chapter includes research approach, research design, variables under study, research setting, population, sample, sample size, sampling technique, criteria for sample solution, validity of the tool, reliability of the tool, ethical consideration, pilot study, data collection and data analysis procedure.

RESEARCH APPROACH

The research approach chosen for this study was descriptive research approach .

RESEARCH DESIGN

The design employed for the study was descriptive research design.

Research Variables

It includes knowledge, attitude and prevalence of risk factors.

Demographic Variables

It includes age, religion, marital status, age at marriage, parity, education, occupation, monthly family income and source of information

SETTING

The study was conducted at Vellanur Village, Thiruvallur District, Tamil Nadu. Total population of the village is 1401 among this 708 are male and 693 are female population. It is One kilometer away from Vel R. S. Medical College - College of Nursing.

POPULATION

Population refers to the entire community and it is important to make distinction between target population and accessible population.

Target Population

Target population of the study comprised of all the women aged between 20 – 50 years.

Accessible Population

Accessible population of the study comprised of all the women aged between 20 – 50 years who were residing at Vellanur Village.

SAMPLE

Sample of the study comprises of women aged between 20 – 50 years who fulfilled the inclusion criteria and who residing at Vellanur Village.

SAMPLE SIZE

Sample size comprised of 300 women aged between 20 – 50 years who fulfilled the inclusion criteria.

SAMPLING TECHNIQUE

Sampling technique refers to the process selecting the population to represent the entire population. The sampling technique employed in this study was non-probability purposive sampling technique. According to investigator needs the women age group of 20 - 50 years at Vellanur Village and who fulfilled the inclusion criteria were selected as sample.

CRITERA FOR SAMPLE SELECTION

Inclusion Criteria

1. Women who were aged between 20 – 50 years.

Exclusion Criteria

1. Women who were already diagnosed for any type of cancer.

DEVELOPMENT AND DESCRIPTION OF THE TOOL

Method of developing the tool

The following steps were carried out in developing the questionnaire.

1. Literature review
2. Experts opinion

Literature Review

Literature from books, journals, periodicals newspaper, published, unpublished research studies and newspaper articles were reviewed and used to develop the tool.

Experts Opinion

The investigator had discussed with the experts and incorporated their valuable suggestions in developing the tool.

DESCRIPTION OF THE RESEARCH TOOL

After an extensive review of literature, discussion with experts and the investigator's personal experience of tools were developed to collect the data.

Section A

Demographic variables include age, religion, marital status, age at marriage, parity, Education, occupation, income and source of information.

Section B

A questionnaire was used to assess the knowledge on breast cancer among women aged between 20 – 50 years. The responses were categorized as choosing one correct answer from the three choices for each question. It includes meaning, causes, signs and symptoms, risk factors, diagnostic evaluation,breast self examination, treatment and prevention.

Section C: Likert Scale

The 5 point Likert attitude scale was used to assess the attitude of breast cancer among women aged between 20 – 50 years of age. It includes 20 items. 10 positive and 10 negative items with choices as strongly agree, uncertain, agree, disagree and strongly disagree.

Section D: Checklist

A checklist was used to assess the risk factors of breast cancer among women aged between 20 – 50 years. It includes 11 questions with no risk, low risk, moderate risk and high risk.

Scoring Procedure

Section B:

Scoring	Knowledge
<50%	Inadequate Knowledge
50 – 75%	Moderately Adequate Knowledge
>75%	Adequate Knowledge

Section C:

Scoring	Attitude
<50%	Unfavaourable Attitude
50 – 75%	Moderately Favourable Attitude
>75%	Favourable Attitude

Attitude	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Positive Items	5	4	3	2	1
Negative Items	1	2	3	4	5

Section D:

Risk Factors	Scoring
No Risk	0
Low Risk	1 – 4
Moderate Risk	5 – 8
High Risk	9 – 11

VALIDITY OF THE TOOL

The content of tool was validated by 3 community health nursing experts and 2 medical experts. The expert's suggestions were incorporated and the tool was finalized and used by the investigator for the study.

RELIABILITY OF THE TOOL

Reliability refers to the degree of consistency or dependability with which are Instrument measure the attribute it is designed to measure. (Denise f polit 2006)

The reliability of the tool to assess the level of knowledge and attitude was established by spilt half method. The Spearman's Correlation Co-efficient was used to calculate the reliability and the 'r' value was 0.96 and 0.97 respectively.

The reliability of the prevalence of risk factors established by Inter-rater method. The Karl Pearson's Correlation Co-efficient was used to calculate the reliability and r=0.78. Hence the tool was considered to be the reliable to proceed with the main study.

ETHICAL CONSIDERATIONS

Ethical consideration refers to a system of moral values that is concerned with the degree to which research procedure adheres to professional, legal and social obligations of the study participants.

The study was conducted after the approval of Dissertation Committee. The formal permission was taken from the Counsellor, Vellanur village, Thiruvallur District before proceeding with the study. The women were clearly explained about the study purpose and oral consent was obtained. It was assured to the clients that the result would be kept confidential.

PILOT STUDY

The pilot study was conducted at Veeranur, Kattumannar Koil at Cuddalore District during the period of 26.04.2010 to 03.05.2010. The investigator selected 30 women by non probability purposive sampling technique who fulfilled the inclusion criteria. Oral consent was obtained from them. A brief introduction about self and the study was given to women by the investigator. The data was collected by structured interview questionnaire and confidentiality of the responses was assured. On an average, it took 30 minutes for each woman to collect the data. The statistical analysis of the pilot study suggested a positive correlation between the knowledge, attitude and prevalence of risk factors among women aged between 20 – 50 years. The 'r' value was 0.96 for knowledge, 0.97 for attitude and 0.78 for prevalence of risk factors. The study was found to be reliable and appropriate to proceed with the main study.

PROCEDURE FOR DATA COLLECTION

The study was conducted in Vellanur Village from 15.05.10 to 15.06.10. The study was conducted after obtaining formal permission from the Counsellor. The investigator selected 300 women in the age group of (20 – 50 years) by non probability purposive sampling technique. The researcher obtained oral consent from the women who participated in the study. A brief introduction about self and study was given by the investigator and confidentiality of the responses were assured. The data was collected by structured interview questionnaire (30 minutes). The investigator collected 10 – 15 samples per day to assess the knowledge, attitude and prevalence of risk factors by using structured knowledge questionnaire and five point likert scale and checklist respectively. Ethical aspects were considered throughout the study.

DATA ANALYSIS PROCEDURE

Both descriptive and inferential statistics were used to analyze the data collected from the samples.

Descriptive Statistics

Frequency and percentage distribution was used to analyse the variables of the study. Mean and standard deviation was used to compute the level of knowledge, attitude and risk factors on breast cancer among samples.

Inferential Statistics

1. Correlation coefficient was used to find the relationship between knowledge, attitude and risk factors on breast cancer of samples.
2. Chi square was used to associate the knowledge, attitude and risk factors on breast cancer of samples with the demographic variables.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretations of data collected from 300 women to assess the knowledge, attitude and prevalence of risk factors on breast cancer among women aged (20 – 50 years) at Vellanur village.

ORGANISATION OF DATA

The findings of the study were grouped and analysed under the following sections.

Section A : Description of demographic variables

Section B : Assessment of level of knowledge, attitude and risk factors on breast cancer among women.

Section C : Correlation of knowledge, attitude and risk factors among women on breast cancer.

Section D : Association of level of knowledge, attitude and risk factors on breast cancer among women with the demographic variables.

SECTION A

Table 1: Frequency and percentage distribution of demographic variables of the women aged between 20 – 50 years.

N = 300

Demographic Variables	No.	%
Age in years		
20 – 30	126	42.00
30 – 40	61	20.33
40 – 50	113	37.67
Religion		
Hindu	157	52.34
Muslim	43	14.33
Christian	100	33.33
Others	0	0.00
Marital Status		
Unmarried	95	31.67
Married	100	33.33
Widow	77	25.67
Separated	28	9.33
Age at marriage		
<20	3	1.00
20 – 25	18	6.00
25 – 30	126	42.00
30 – 35	58	19.33
>35	0	0.00
Parity		
Nulliparity	57	27.80
Multi parity	117	57.07
Single parity	31	15.13
Education		
Non literate	59	19.67
Primary school education	57	19.00
High school education	104	34.67
Higher secondary education	49	16.33
Under graduate/Post Graduate	31	10.33
Occupation		
Unemployed	69	23.00
Unskilled labour	98	32.67
Skilled labour	78	26.00
Professional	55	18.33
Retired	0	0.00
Monthly Income		
Less than Rs.5000/-	14	4.67
₹ 5000 – 7000	110	36.67
₹ 7000 – 9000	152	50.67
>₹ 9000	24	8.00

Demographic Variables	No.	%
Source of information		
Mass media	66	22.00
Health personnel	152	50.67
Neighbours	58	19.33
Others	24	8.00

The table 1 shows that majority of the women 126(42%) belonged to the age group of 20 – 30 years, 157(52.34%) were Hindus, 100(33.33%) were married, 126(42%) were aged between 25-30 years at the time of marriage, 117(57.07%) belonged to multi parity, 104(34.67%) had high school education, 98(32.67%) were unskilled labours, 152(50.67%) had a monthly income of Rs.7000 – 9000 and 152(50.67%) received information through health personnel.

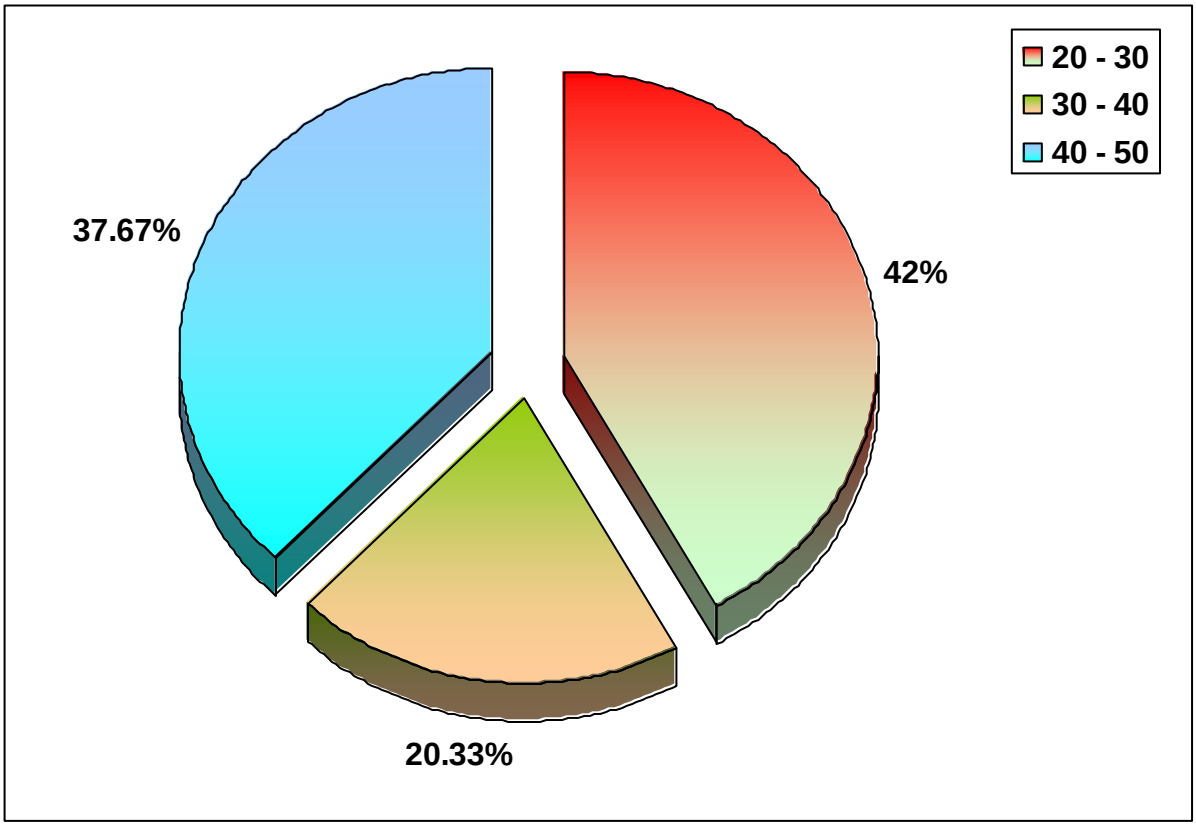

Fig.2: Percentage distribution of age of the women

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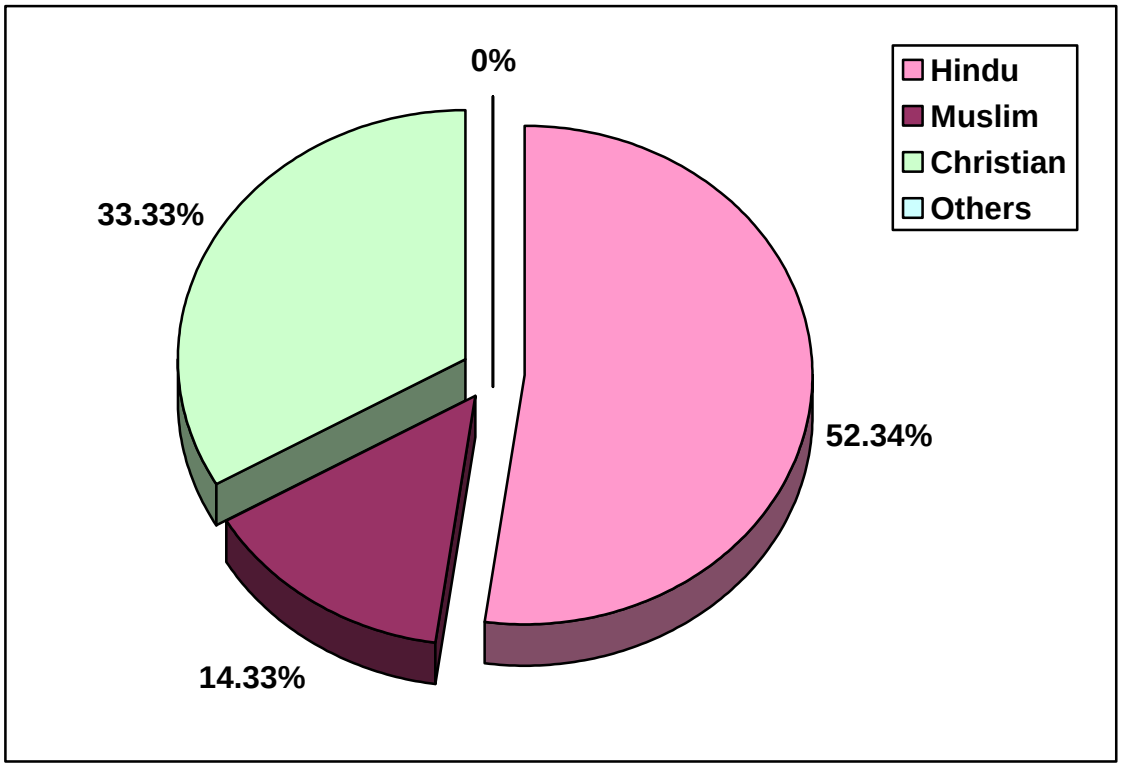

Fig.3: Percentage distribution of religion of the women

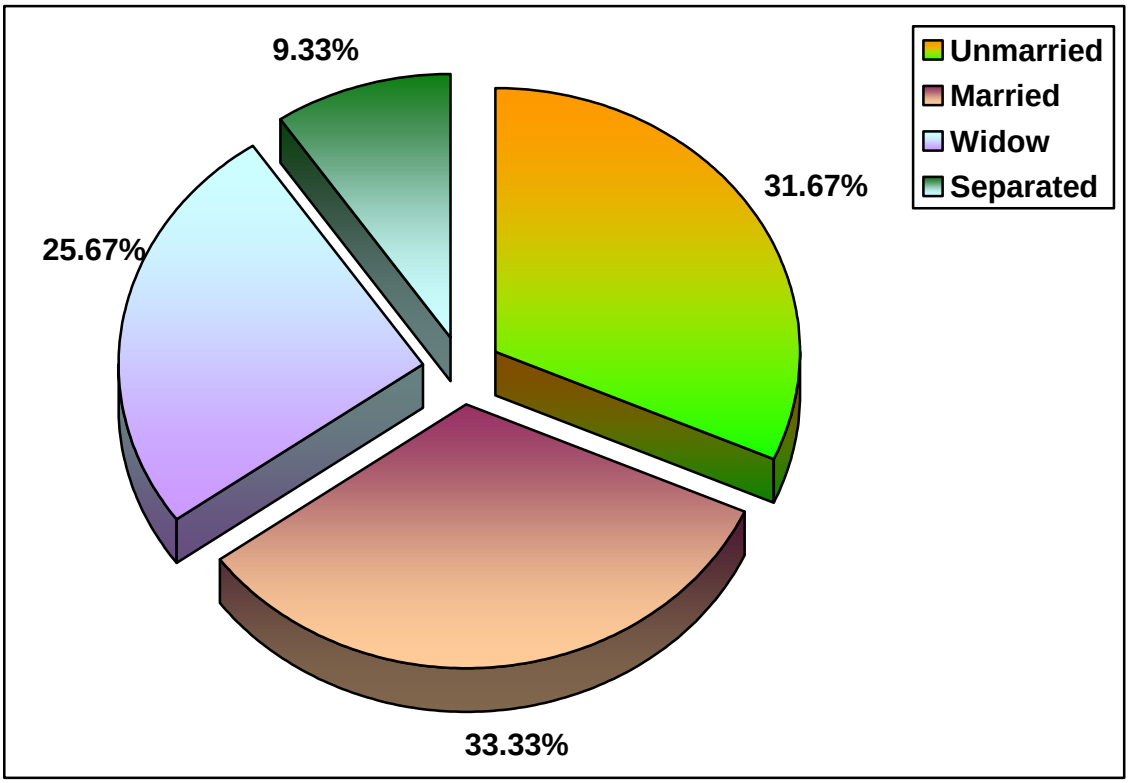

Fig.4: Percentage distribution of marital status of the women

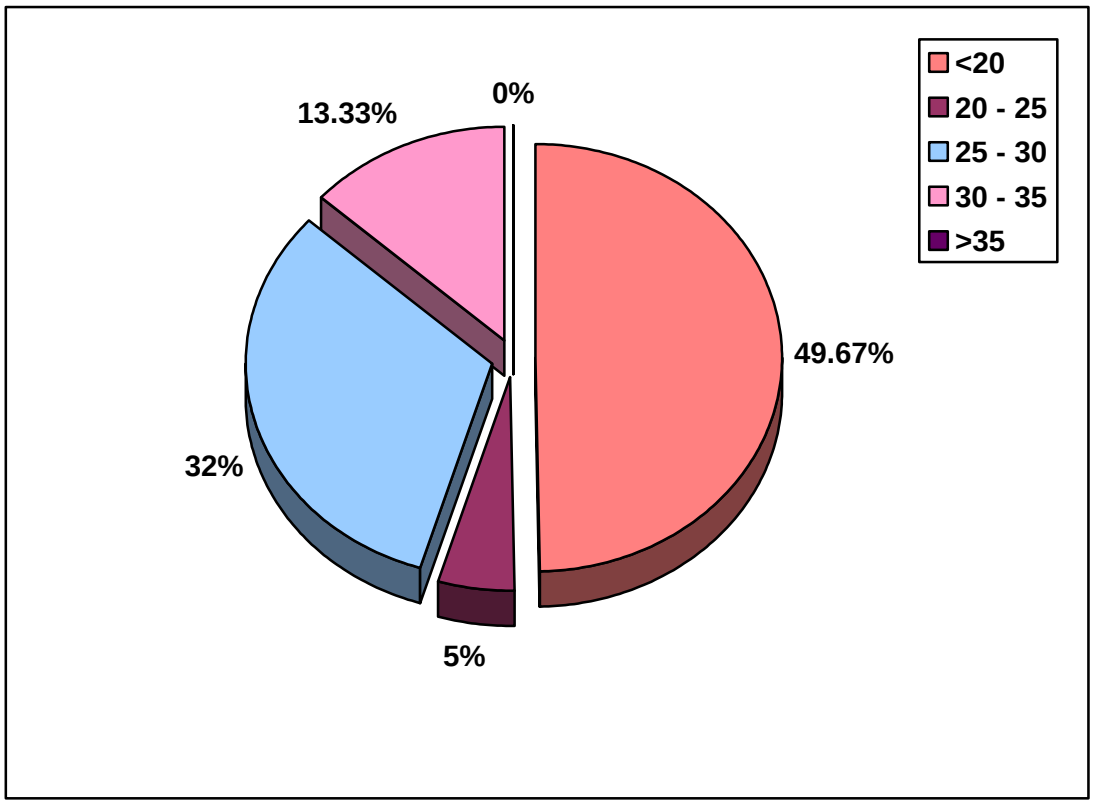

Fig.5: Percentage distribution of age at marriage of the women

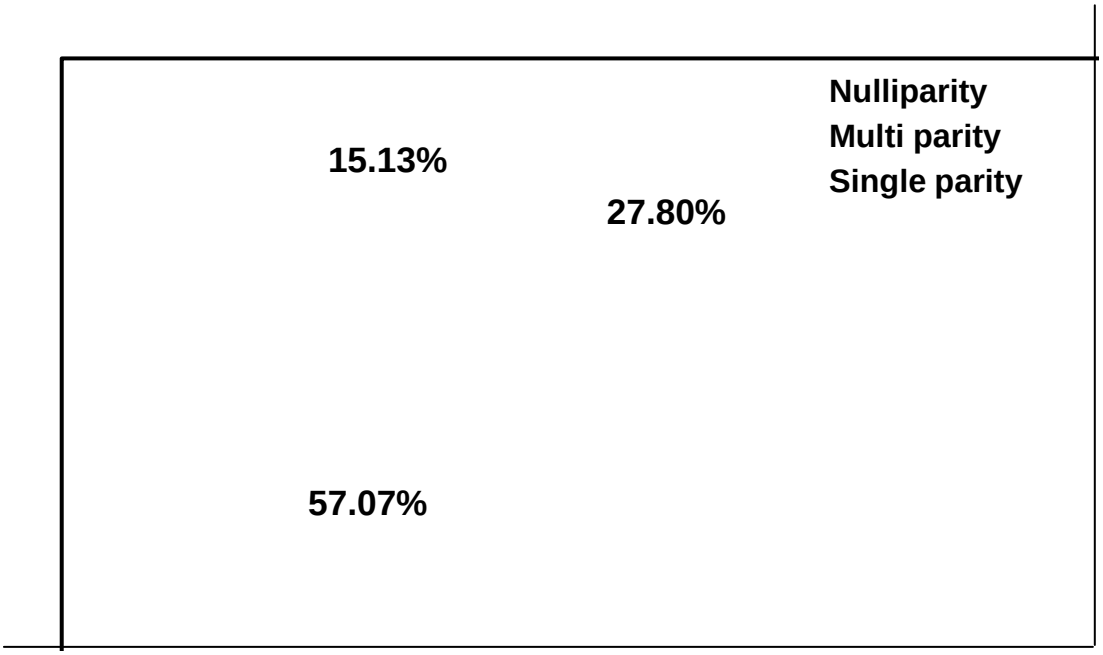

Fig.6: Percentage distribution of parity of the women

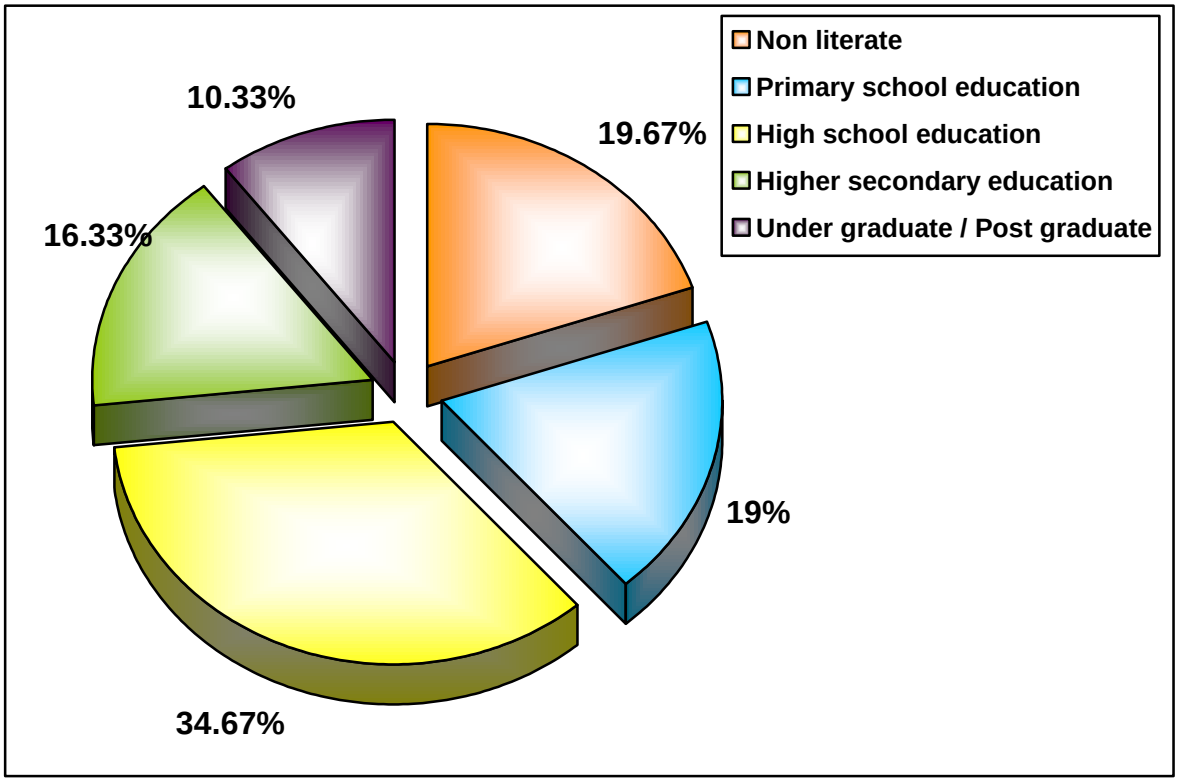

Fig.7: Percentage distribution of education of the women

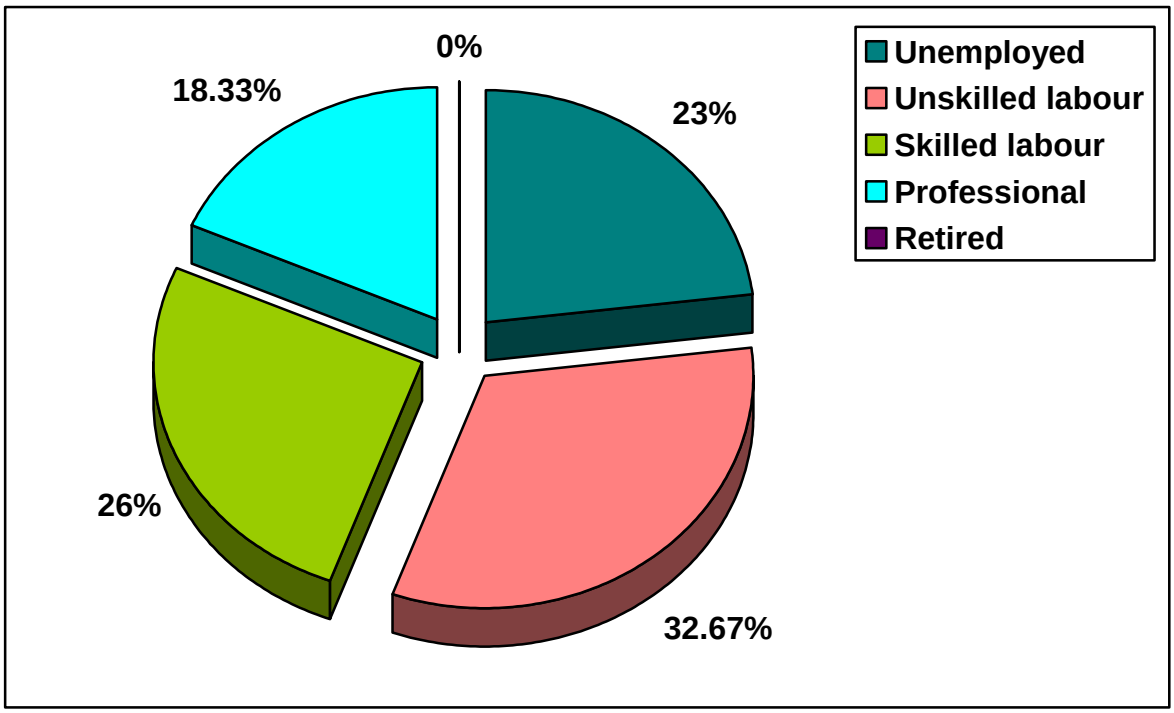

Fig.8: Percentage distribution of occupation of the women

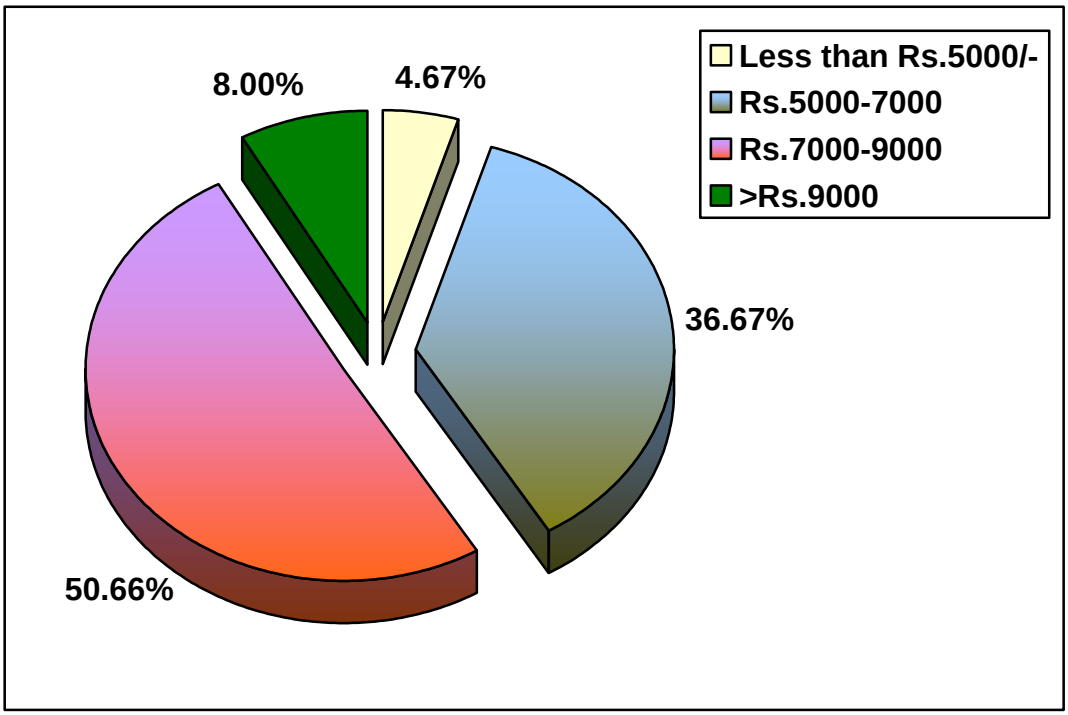

Fig.9: Percentage distribution of monthly income of the women

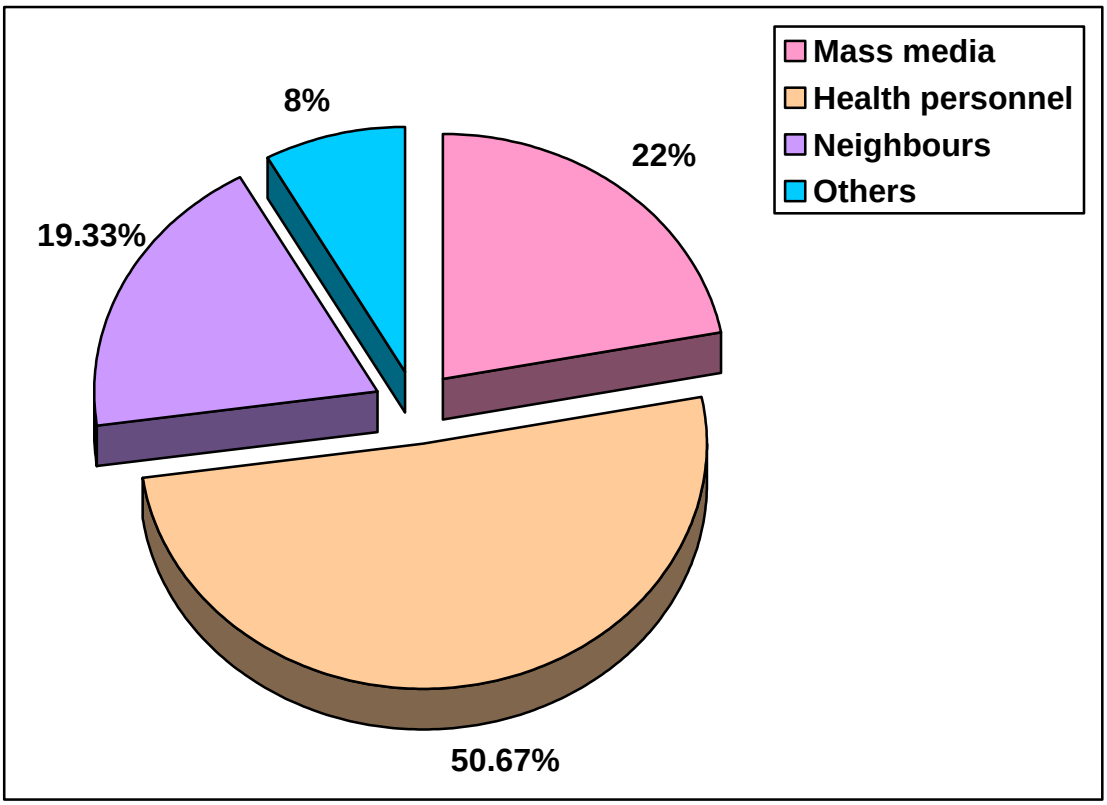

Fig.10: Percentage distribution of source of information of the women

SECTION B

Table 2: Frequency and percentage distribution of level of knowledge of women on breast cancer.

N = 300

Variable	Inadequate (<50%)		Moderately Adequate (50 – 75%)		Adequate (>75%	
	No.	%	No.	%	No.	%
General	82	27.3	150	50.0	68	22.7
Causes	126	42.0	68	22.7	106	35.3
Risk Factors	79	26.3	117	39.0	104	34.7
Signs & Symptoms	87	29.0	80	26.7	133	44.3
Diagnostic Evaluation	120	40.0	63	21.0	117	39.0
Breast Self Examination	91	30.3	100	33.3	109	36.3
Treatment	108	36.0	61	20.3	131	43.7
Prevention	99	33.0	44	14.67	157	52.33
Overall	**87**	**29.0**	**145**	**48.33**	**68**	**22.67**

Table 2 shows that the respect to knowledge, majority 150(50%) had moderately adequate knowledge. With regard to causes, majority 126(42%) had inadequate knowledge.

Considering risk factors, majority 117(39%) had moderately adequate knowledge.

Regarding signs & symptoms, majority 133(44.3%) had adequate knowledge

With respect to diagnostic evaluation, majority 120(40%) had inadequate knowledge.

Analysing breast self examination revealed that majority 109(36.3%) had adequate knowledge.

With regard to treatment, majority 131(43.7%) had adequate knowledge and considering prevention, majority 157(52.33%) had adequate knowledge.

Regarding the overall level of knowledge, majority 145(48.33%) of women had moderately adequate knowledge, 87(29%) had inadequate knowledge and 68(22.67%) had adequate knowledge on breast cancer.

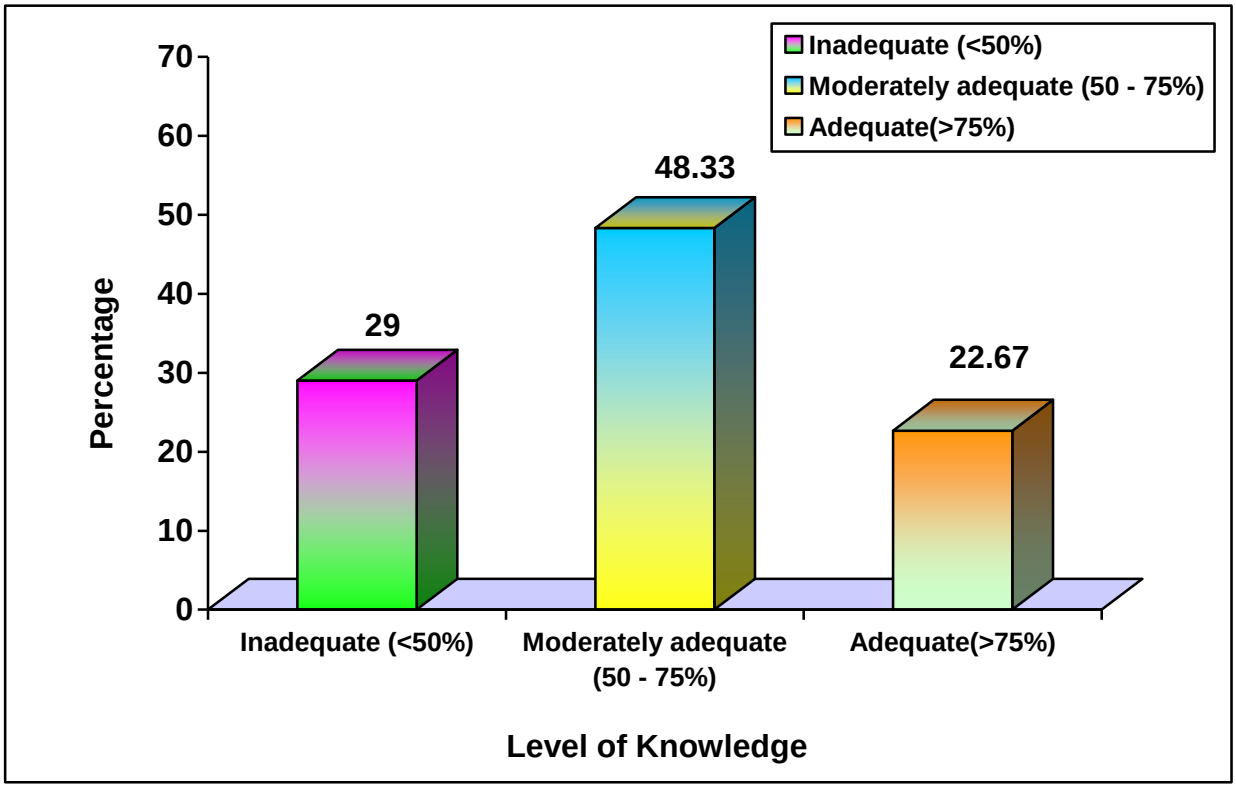

Fig.11: Percentage distribution of level of knowledge on breast cancer among women

Table 3: Frequency and percentage distribution of level of attitude of women on breast cancer.

N = 300

Variable	Unfavourable (<50%)		Moderately Favourable (50 – 75%)		Favourable (>75%	
	No.	%	No.	%	No.	%
Causes	88	29.34	105	35.0	107	35.66
Risk Factors	132	44.0	64	21.33	104	34.67
Signs & Symptoms	122	40.67	101	33.67	77	25.67
Investigation	106	35.33	106	35.33	88	29.34
Breast Self Examination	120	40.0	82	27.33	98	32.67
Screening	105	35.0	108	36.0	87	29.0
Prevention & Treatment	137	45.66	62	20.67	101	33.67
Overall	**106**	**35.33**	**94**	**31.34**	**100**	**33.33**

Table 3 shows that with respect to causes, majority 107(35.66%) had favourable attitude.

Considering risk factors, majority 132(44%) had unfavourable attitude.

Regarding signs & symptoms, majority 122(40.67%) had unfavourable attitude.

With respect to investigation, majority 106(3533%) had moderately favourable attitude.

Analysing breast self examination revealed that majority 120(40%) had unfavourable attitude.

With regard to screening, majority 108(36%) had moderately favourable attitude and considering prevention and treatment, majority 137(45.66%) had unfavourable attitude.

Considering the overall level of attitude, majority 106(35.33%) of women had unfavourable attitude, 100(33.33%) had favourable attitude and 94(31.34%) had moderately favourable attitude.

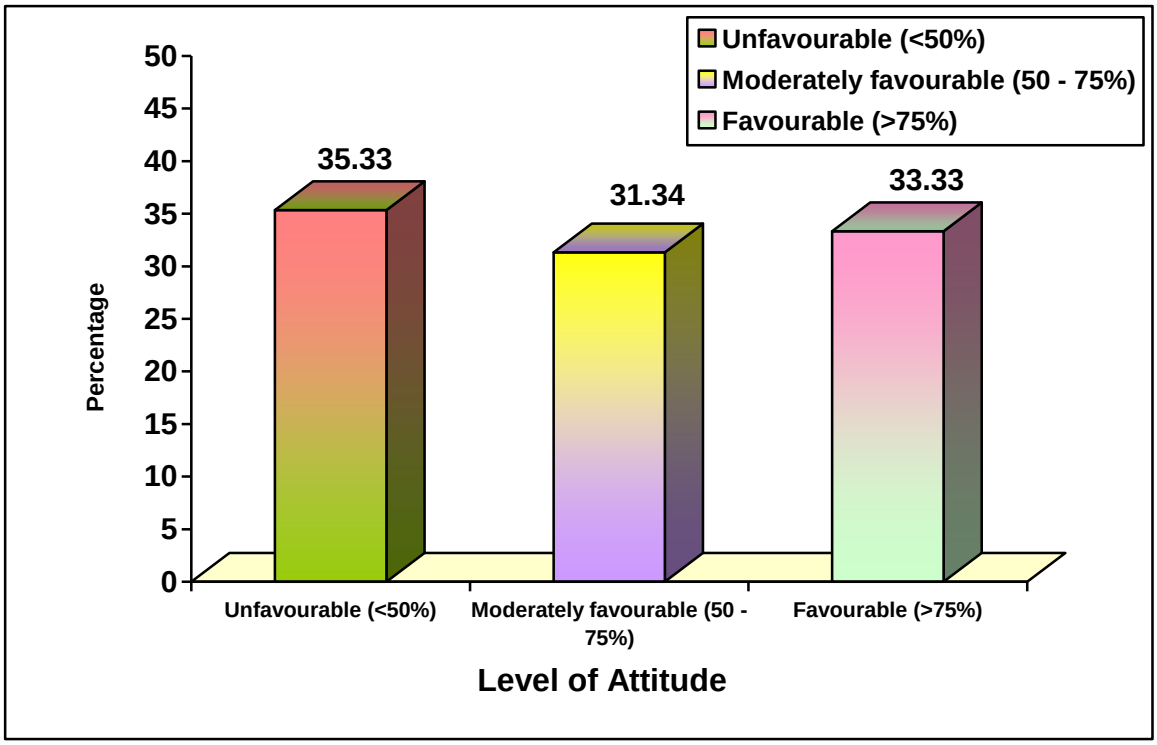

Fig.12: Percentage distribution of level of attitude on breast cancer among women

Table 4: Frequency and percentage distribution of level of risk factors of women on breast cancer.

N = 300

Variable	Low (<50%)		Moderate (50 – 75%)		High (>75%)	
	No.	%	No.	%	No.	%
Risk Factors	278	92.67	22	7.33	0	0

Table 4 shows that majority 278(92.67%) of women had low level of risk factors, 22(7.33%) had moderate level of risk factors.

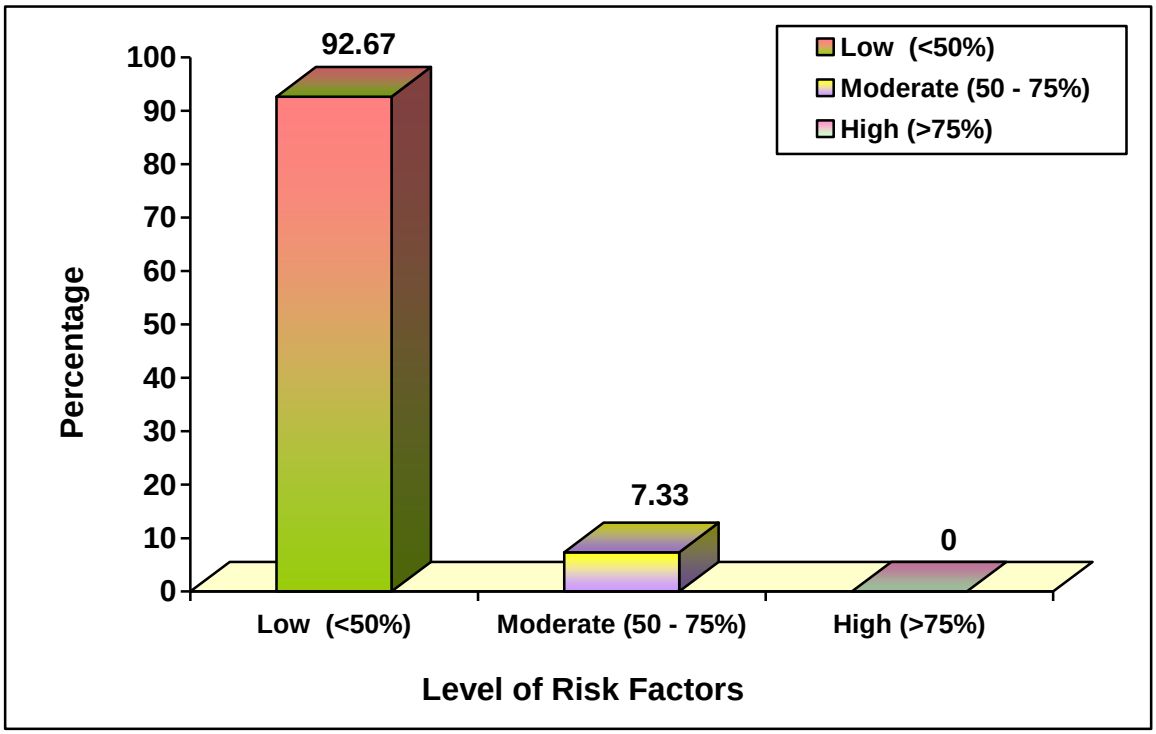

Fig.13: Percentage distribution of level of risk factors on breast cancer among women

SECTION C

Table 5: Correlation between knowledge and attitude on breast cancer among women.

N = 300

Variables	Mean	S.D	'r' Value
Knowledge	15.24	5.07	0.338**
Attitude	60.96	22.85	(S)

**p<0.01, S – Significant

Table 5 shows the mean score of knowledge on breast cancer among women was 15.24 with S.D 5.07 and the mean score of attitude was 60.96 with S.D 22.85. The calculated 'r' value was 0.338 which shows a positive correlation and statistically significant at p<0.01 level. This indicates that when the knowledge of women on breast cancer increases their attitude also increases.

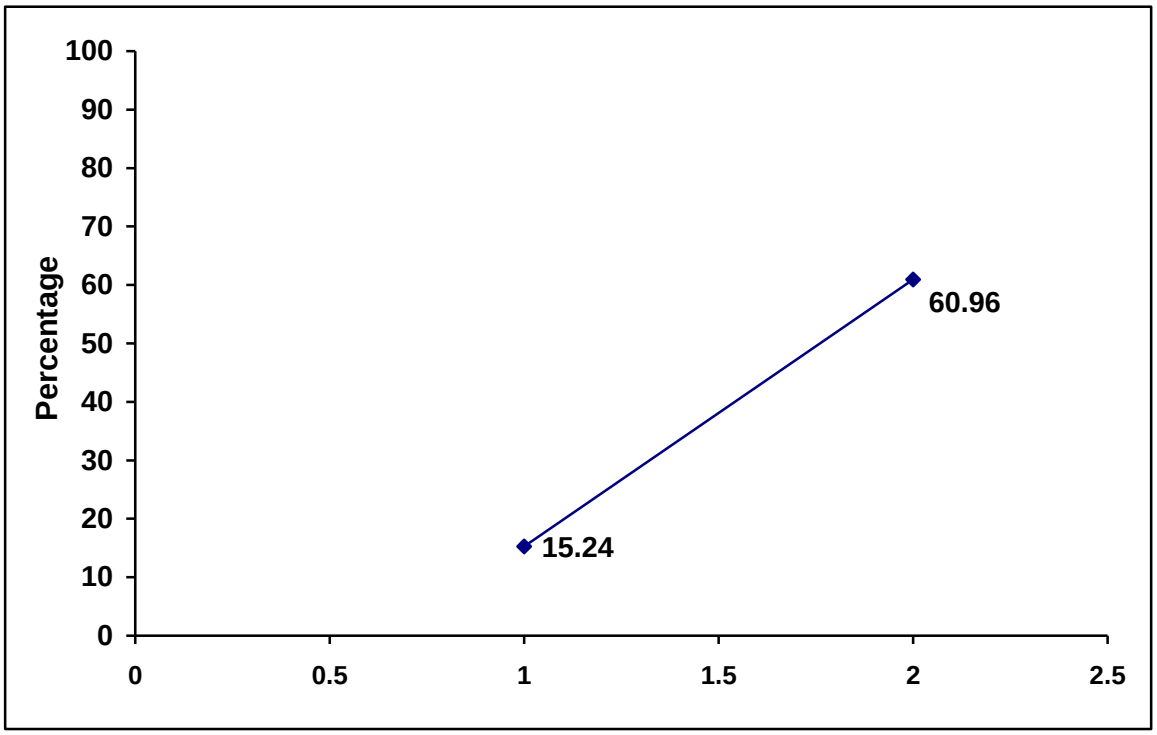

Fig.14: Correlation between the level of knowledge and attitude

Table 6: Correlation between knowledge and risk factors on breast cancer among women.

N = 300

Variables	Mean	S.D	'r' Value
Knowledge	15.24	5.07	-0.342**
Risk factors	2.35	1.72	(S)

**p<0.01, S – Significant

Table 6 shows the mean score of knowledge on breast cancer among women was 15.24 with S.D 5.07 and the mean score of risk factors was 2.35 with S.D 1.72. The calculated 'r' value was -0.342 which shows a negative correlation and statistically significant at p<0.01 level. This indicates that when the knowledge of women on breast cancer increases, the risk factors on breast cancer decreases.

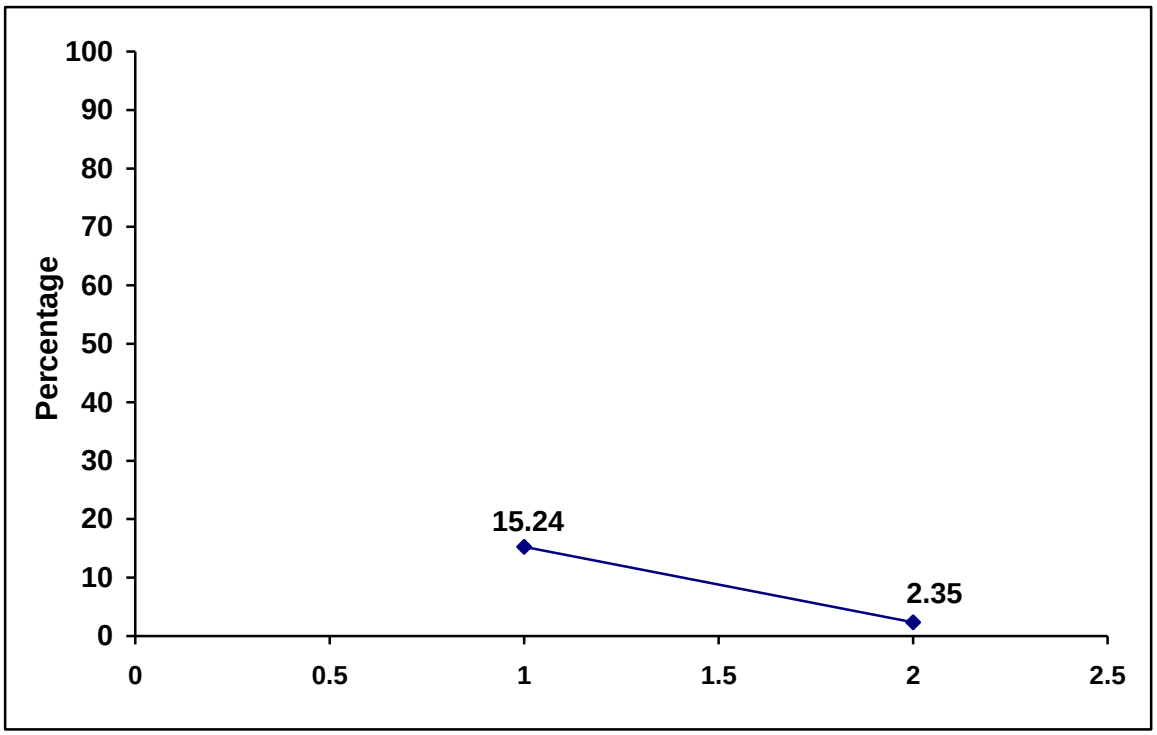

Fig.15: Correlation between the level of knowledge and risk factors

Table 7: Correlation between attitude and risk factors on breast cancer among women.

N = 300

Variables	Mean	S.D	'r' Value
Attitude	60.96	22.85	-0.208**
Risk factors	2.35	1.72	(S)

**p<0.01, S – Significant

Table 7 shows the mean score of attitude on breast cancer among women was 60.96 with S.D 22.85 and the mean score of risk factors was 2.35 with S.D 1.72. The calculated 'r' value was -0.208 which shows a negative correlation and statistically significant at p<0.01 level. This indicates that when the attitude of women on breast cancer increases the risk factors on breast cancer decreases.

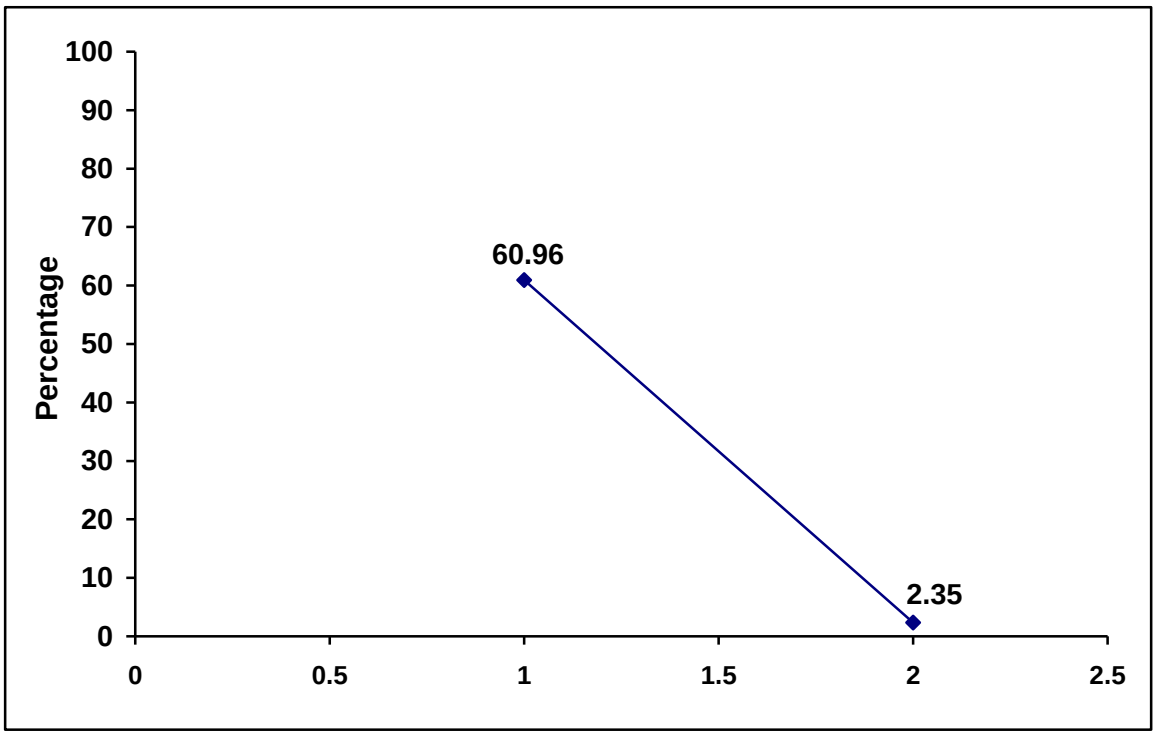

Fig.16: Correlation between the level of attitude and risk factors

SECTION D

Table 8: Association of level of knowledge on breast cancer among women with demographic variables

N = 300

Demographic Variables	Inadequate (<50%)		Moderately Adequate (50 – 75%)		Adequate (>75%		Chi-Square Value
	No.	%	No.	%	No.	%	
Age in years							$\chi^2 = 4.735$ d.f = 4 N.S
20 – 30	38	12.7	55	18.3	33	11.0	
30 – 40	13	4.3	33	11.0	15	5.0	
40 – 50	36	12.0	57	19.0	20	6.7	
Religion							$\chi^2 = 9.230$ d.f = 4 N.S
Hindu	54	18.0	69	23.0	34	52.3	
Muslim	9	3.0	19	6.3	15	14.3	
Christian	24	8.0	57	19.0	19	33.3	
Others	-	-	-	-	-	-	
Marital Status							$\chi^2 = 5.297$ d.f = 6 N.S
Unmarried	29	9.7	40	13.3	26	8.7	
Married	28	9.3	53	17.7	19	6.3	
Widow	25	8.3	37	12.3	15	5.0	
Separated	5	1.7	15	5.0	8	2.7	
Age at marriage							$\chi^2 = 9.167$ d.f = 6 N.S
<20	2	1.0	-	-	1	0.5	
20 – 25	4	2.0	12	5.9	2	1.0	
25 – 30	30	14.6	68	33.2	28	13.7	
30 – 35	22	10.7	25	12.2	11	5.4	
>35	-	-	-	-	-	-	
Parity							$\chi^2 = 9.498$ d.f = 4 S*
Nulliparity	14	6.8	26	12.7	17	8.3	
Multi parity	32	15.6	62	30.2	23	11.2	
Single parity	12	5.9	17	8.3	2	1.0	
Education							$\chi^2 = 8.105$ d.f = 8 N.S
Non literate	21	7.0	31	10.3	7	2.3	
Primary school education	14	4.7	32	10.7	11	3.7	
High school education	28	9.3	48	16.0	28	9.3	
Higher secondary education	15	5.0	21	7.0	13	4.3	
Under graduate/Post Graduate	9	3.0	13	4.3	9	3.0	
Occupation							$\chi^2 = 4.168$ d.f = 6 N.S
Unemployed	18	6.0	37	12.3	14	4.7	
Unskilled labour	24	8.0	51	17.0	23	7.7	

Demographic Variables	Inadequate (<50%)		Moderately Adequate (50 – 75%)		Adequate (>75%		Chi-Square Value
Skilled labour	28	9.3	33	11.0	17	5.7	
Professional	18	5.7	24	8.0	14	4.7	
Retired	-	-	-	-	-	-	
Monthly Income							
Less than ₹5000/-	2	0.7	10	3.3	2	0.7	$\chi^2 = 8.430$ d.f = 6 N.S
₹5000 - 7000	25	8.3	58	19.3	27	9.0	
₹7000 - 9000	50	16.7	67	22.3	35	11.7	
>₹9000	10	3.3	10	3.3	4	1.3	
Source of information							
Mass media	19	6.3	23	7.7	24	8.0	$\chi^2 =$ 11.565 d.f = 6 N.S
Health personnel	46	15.3	77	25.7	29	9.7	
Neighbours	16	5.3	30	10.0	12	4.0	
Others	6	2.0	15	5.0	3	1.0	

N.S – Not Significant

The table 8 shows that the demographic variable parity had statistically significant association with the level of knowledge at $p<0.05$ level and the other demographic variables had not shown statistically significant association with the level of knowledge among women on breast cancer

Table 9: Association of level of attitude on breast cancer among women with demographic variables

N = 300

Demographic Variables	Unfavourable (<50%)		Moderately Favourable (50 – 75%)		Favourable (>75%		Chi-Square Value
	No.	%	No.	%	No.	%	
Age in years							$\chi^2 = 4.382$ d.f = 4 N.S
20 – 30	51	17.0	33	11.0	42	14.0	
30 – 40	17	5.7	21	7.0	23	7.7	
40 – 50	38	12.7	40	13.3	35	11.7	
Religion							$\chi^2 = 4.350$ d.f = 4 N.S
Hindu	60	20.0	48	16.0	49	16.3	
Muslim	15	5.0	17	5.7	11	3.7	
Christian	31	10.3	29	9.7	40	13.3	
Others	-	-	-	-	-	-	
Marital Status							$\chi^2 = 8.818$ d.f = 6 N.S
Unmarried	39	13.0	22	7.3	34	11.3	
Married	34	11.3	40	13.3	26	8.7	
Widow	25	8.3	22	7.3	30	10.0	
Separated	8	2.7	10	3.3	10	3.3	
Age at marriage							$\chi^2 = 7.652$ d.f = 6 N.S
<20	0	0	2	1.0	1	0.5	
20 – 25	8	3.9	8	3.9	2	1.0	
25 – 30	38	18.5	41	20.0	47	22.9	
30 – 35	21	10.2	21	10.2	16	7.8	
>35	-	-	-	-	-	-	
Parity							$\chi^2 = 6.494$ d.f = 4 N.S
Nulliparity	21	10.2	15	7.3	21	10.2	
Multi parity	35	17.1	42	20.5	40	19.5	
Single parity	11	5.4	15	7.3	5	2.4	
Education							
Non literate	18	6.0	23	7.7	18	6.0	$\chi^2 = 9.149$ d.f = 8 N.S
Primary school education	23	7.7	20	6.7	14	4.7	
High school education	33	11.0	35	11.7	36	12.0	
Higher secondary education	20	6.7	10	3.3	19	6.3	
Under graduate/Post Graduate	12	4.0	6	2.0	13	4.3	
Occupation							$\chi^2 = 9.775$ d.f = 6 N.S
Unemployed	25	8.3	29	9.7	15	5.0	
Unskilled labour	32	10.7	27	9.0	39	13.0	
Skilled labour	26	8.7	26	8.7	26	8.7	
Professional	23	7.7	12	4.0	20	6.7	
Retired	-	-	-	-	-	-	
Monthly Income							$\chi^2 = 12.652$ d.f = 6 S*
Less than ₹5000/-	2	0.7	2	0.7	10	3.3	
₹5000 - 7000	38	12.7	37	12.3	35	11.7	
₹7000 – 9000	59	19.7	44	14.7	49	16.3	

Demographic Variables	Unfavourable (<50%)		Moderately Favourable (50 – 75%)		Favourable (>75%		Chi-Square Value
>₹9000	7	2.3	11	3.7	6	2.0	
Source of information							
Mass media	19	6.3	14	4.7	33	11.0	$\chi^2 = 19.151$ d.f = 6 S***
Health personnel	62	20.7	52	17.3	38	12.7	
Neighbours	22	7.3	17	5.7	19	6.3	
Others	3	1.0	11	3.7	10	3.3	

*p<0.05, ***p<0.001, S – Significant, N.S – Not Significant

The table 9 shows that the demographic variables, monthly income and source of information had shown statistically significant association with the level of attitude on breast cancer among women at p<0.05 and p<0.001 level and the other demographic variables not shown any statistically significant association with the level of attitude on breast cancer among women.

Table 10: Association of level of risk factors on breast cancer among women with demographic variables N = 300

Demographic Variables	Low (<50%)		Moderate (50 – 75%)		Chi-Square Value
	No.	%	No.	%	
Age in years					$\chi^2 = 5.565$ d.f = 2 N.S
20 – 30	122	40.7	4	1.3	
30 – 40	55	18.3	6	2.0	
40 – 50	101	33.7	12	4.0	
Religion					$\chi^2 = 1.296$ d.f = 2 N.S
Hindu	143	47.7	14	4.7	
Muslim	41	13.7	2	0.7	
Christian	94	31.3	6	2.0	
Others	-	-	-	-	
Marital Status					$\chi^2 = 8.973$ d.f = 3 S*
Unmarried	94	31.3	1	0.3	
Married	91	30.3	9	3.0	
Widow	69	23.0	8	2.7	
Separated	24	8.0	4	1.3	
Age at marriage					$\chi^2 = 1.638$ d.f = 3 N.S
<20	3	1.5	0	0	
20 – 25	17	8.3	1	0.5	
25 – 30	114	55.6	12	5.9	
30 – 35	50	24.4	8	3.9	
>35	-	-	-	-	
Parity					$\chi^2 = 3.621$ d.f = 2 N.S
Nulliparity	48	23.4	9	4.4	
Multi parity	109	53.2	8	3.9	
Single parity	27	13.2	4	2.0	
Education					$\chi^2 = 3.912$ d.f = 4 N.S
Non literate	56	18.7	3	1.0	
Primary school education	52	17.3	5	1.7	
High school education	94	31.3	10	3.3	
Higher secondary education	45	15.0	4	1.3	
Under graduate/Post Graduate	31	10.3	-	-	
Occupation					$\chi^2 = 6.822$ d.f = 3 N.S
Unemployed	63	21.0	6	2.0	
Unskilled labour	87	29.0	11	3.7	
Skilled labour	73	24.3	5	1.7	
Professional	55	18.3	-	-	
Retired	-	-	-	-	
Monthly Income					$\chi^2 = 0.039$ d.f = 3 N.S
Less than ₹5000/-	13	4.3	1	0.3	
₹5000 - 7000	102	34.0	8	2.7	
₹ 7000 - 9000	141	47.0	11	3.7	
>₹9000	22	7.3	2	0.7	
Source of information					$\chi^2 = 7.609$ d.f = 3 N.S
Mass media	65	21.7	1	0.3	
Health personnel	136	45.3	16	5.3	
Neighbours	53	17.7	5	1.7	
Others	24	8.0	-	-	

*p<0.05, S – Significant, N.S – Not Significant

The table 10 shows that the demographic variables marital status and age at marriage had shown statistically significant association with the level of risk factors on breast cancer among women at $p<0.05$ level and the other demographic variables had not shown any statistically significant association with the level of risk factors on breast cancer among women.

CHAPTER – V

DISCUSSION

This chapter deals with the discussion of the result of the data analysis based on the objectives of the study and hypothesis, A study to assess the knowledge, attitude and prevalence of risk factors on breast cancer among women aged (20 – 50 years) at vellanur village ,Thiruvallur district

The objectives were

1. To assess the knowledge and attitude regarding breast cancer among women aged (20 – 50years).
2. To assess the prevalence of risk factors on breast cancer among women aged (20 – 50 years).
3. To correlate the knowledge and attitude on breast cancer.
4. To correlate the knowledge with prevalence of risk factors.
5. To correlate the attitude with prevalence of risk factors.
6. To associate the knowledge and attitude on breast cancer with the demographic variables.
7. To associate the prevalence of risk factors on breast cancer with the demographic variables.

The demographic variables selected for the study were, age, religion, marital status, age at marriage, parity, education, occupation, monthly income and source of information. Majority of the respondents 126(42%) belonged to the age group of 20 – 30 years, 157(52.34%) were Hindus, 100(33.33%) were married, 126(42) were aged 25-30 years at the time of marriage, 117(57.07%) belonged to multi parity, 104(34.67%) had high school education, 98(32.67%) were unskilled labours, 152(50.67%) had a monthly income of₹.7000 – 9000 and 152(50.67%) received information through health personnel.

The first objective was to assess the knowledge and attitude on breast cancer among women aged (20 –50years).

Regarding knowledge, majority 145(48.33%) of women had moderately adequate knowledge, 87(29%) had inadequate knowledge and 68(22.67%) had adequate knowledge on breast cancer.

With respect to attitude, majority 106(35.33%) of women unfavourable attitude, 100(33.33%) had favourable attitude and 94(31.34%) had moderately favourable attitude.

The above findings were consistent with the findings of the study conducted by Yaren, A et al (2008) conducted a cross sectional study to assess the awareness of breast cancer and cervical risk factors and screening behaviours among nurses in rural regions of Turkey and found despite high levels of knowledge of breast cancer, inadequate knowledge of cervical cancer screening method were found among nurses.

Odusanya OO, Tayo OO. (2001) conducted a cross sectional survey on knowledge, attitude and practice on breast cancer among nurses in Lagos ,Nigeria. A self-administered questionnaire was used to investigate knowledge of symptoms, methods of diagnosis and use of cancer screening methods. Two hundered and four nurses out of 280 participated in the study (73% response rate). Knowledge about symptoms, methods of diagnosis and self-breast examination was generally very good. However, only 30% had a clinical breast examination and 8% a mammogram within the past three years. Use of cancer screening methods was significantly associated with knowledge of the subject (p=0.03). Twenty-eight percent did not know how to estimate the risk of cancer and 61% believed they were not at risk. Nurses possess adequate knowledge about breast cancer but they need more information on cancer risk estimation.

The second objective was to assess the prevalence of risk factors of breast cancer among women aged (20 –50years).

The analysis revealed that, majority 278(92.67%) of women had low level of risk factors, 22(7.33%) had moderate level of risk factors.

Syamla V .et al., (2007) conducted a case control study to identify the genetic heterogenicity, prevalence and frequently of germline mutuation od BRCA2 gene in hereditary breast/ ovarian cancer patients. The result suggests that germline mutations of

BRCA2 gene account for rather small proportion of hereditary breast/ovarian cancer in Kerala, South India.

The third objective was to correlate the knowledge and attitude on breast cancer.

The analysis revealed that the mean score of knowledge on breast cancer among women was 15.24 with S.D 5.07 and the mean score of attitude was 60.96 with S.D 22.85. The calculated 'r' value was 0.338 which shows a positive correlation and statistically significant at $p<0.01$ level. This indicates that when the knowledge of women on breast cancer increases their attitude also increases.

Hence the null hypothesis H_{01} stated there is no significant relationship between knowledge and attitude on breast cancer was rejected.

The fourth objective was to correlate the knowledge and prevalence of risk factor on breast cancer.

The analysis revealed that the mean score of knowledge on breast cancer among women was 15.24 with S.D 5.07 and the mean score of risk factors was 2.35 with S.D 1.72. The calculated 'r' value was -0.342 which shows a negative correlation and statistically significant at $p<0.01$ level. This indicates that when the knowledge of women on breast cancer increases the risk factors on breast cancer decreases.

Hence the null hypothesis H_{02} that stated that there is no significant relationship between knowledge and prevalence of risk factors on breast cancer was rejected.

The fifth objective was to correlate the attitude and prevalence of risk factor on breast cancer.

The analysis revealed that the mean score of attitude on breast cancer among women was 60.96 with S.D 22.85 and the mean score of risk factors was 2.35 with S.D 1.72. The calculated 'r' value was -0.208 which shows a negative correlation and statistically significant at $p<0.01$ level. This indicates that when the attitude of women on breast cancer increases the risk factors on breast cancer decreases.

Hence the null hypothesis H_{03} stated that there is no significant relationship between attitude and prevalence of risk factors on breast cancer was rejected.

The sixth objective was to associate the knowledge, attitude and prevalence of risk factors on breast cancer with the demographic variables.

With respect to knowledge the analysis revealed that the demographic variable parity had statistically significant association with the level of knowledge at $p<0.05$ level and the other demographic variables had not shown statistically significant association with the level of knowledge among women on breast cancer.

Considering the attitude the analysis revealed that the demographic variables monthly income and source of information had shown statistically significant association with the level of attitude on breast cancer among women at $p<0.05$ and $p<0.001$ level and the other demographic variables had not shown any statistically significant association with the level of attitude on breast cancer among women.

With regard to prevalence of risk factors the analysis revealed that the demographic variables marital status and age at marriage had shown statistically significant association with the level of risk factors on breast cancer among women at $p<0.05$ level and the other demographic variables had not shown any statistically significant association with the level of risk factors on breast cancer among women.

The conceptual framework used in this study was based on modified Pender's Health Promotion model. This model seeks to increase the individual's level of well-being. The model focuses on modifying factors, cognitive factors and likelihood of participation in health promotion behavior.

This model is used to predict likelihood of person engaging in health promoting behaviours. The cognitive factors reflect on individual's being, additional modifying factors influencing the way a person perceived the benefits and barriers of health action, which influence the person's likelihood of action.

As the investigator aimed at assessing the knowledge, attitude and risk factors on breast cancer among the people, the Pender's Health Promotion model was found suitable to assess the knowledge of the people of their attitude and risk factors.

Cognitive Factors

It includes the Importance of Health, Perceived control of Health, Perceived self efficiency, Health Status, Perceived benefits of health promoting behavior, Perceived barriers to health promoting behavior. Which motivates the women to take or prefer an action to over come their existing problem.

Modifying Factors

Individual perception about knowledge, attitude and risk factors on breast cancer is affected by modifying factors like demographic factors such as age, religion, educational status, family income, type of family, type of marriage, marital status, age at marriage, parity, occupation, income and source of information. Biological factors, Interpersonal characteristics, Situation factors, behaviour factors.

Health Promoting Behaviour (Likelihood of Action)

The likelihood of action of this study is the outcome of the forces of modifying factor and cognitive factor result in the health outcome in terms of satisfied and a healthy life or unsatisfied and unhealthy life.

On this model, the investigator interacts with the subject to assess the knowledge and attitude on breast cancer. The outcome of this could be adequate or inadequate knowledge and favorable or unfavourable attitude, no risk factors or high risk factors. Those with adequate knowledge and favourable attitude enhance the likelihood of action and this will promote optimum healthy life by compliance.

On the other hand, those who have inadequate knowledge and unfavourable attitude high risk factors on breast cancer results in poor likelihood which will add to unhealthy life the researcher provides pamphlet and incidental health teaching to performance of breast self examination and screening an optimum healthy and a satisfied life.

CHAPTER – VI

SUMMARY, CONCLUSION, NURSING IMPLICATIONS, RECOMMENTAION AND LIMITATIONS

This chapter presents a summary of the study based on their implications, recommendations and limitations of the study are highlighted

SUMMARY

The purpose of the study was to assess the knowledge, attitude and prevalence of risk factors on breast cancer among women. This study was descriptive study. The main study was conducted at Vellanur Village, Avadi, Thiruvallur District. A total of 300 women in the age group between 20 – 50 years who met the inclusion criteria were selected by using non-probability purposive sampling technique. The investigator first introduced herself to the patient and developed a rapport with them, structured interview questionnaire was conducted by using the instrument consisting of three parts.

The objectives of the study were

1. To assess the knowledge and attitude regarding breast cancer among women aged (20 – 50 years).
2. To assess the prevalence of risk factors on breast cancer among women aged (20 – 50 years).
3. To correlate the knowledge and attitude on breast cancer.
4. To correlate the knowledge with prevalence of risk factors.
5. To correlate the attitude with prevalence of risk factors.
6. To associate the knowledge and attitude on breast cancer with the demographic variables.
7. To associate the prevalence of risk factors on breast cancer with the demographic variables.

The null hypothesis formulated were

H_{01}: There is no significant relationship between knowledge and attitude on breast cancer.

H_{02}: There is no significant relationship between knowledge and prevalence of risk factors on breast cancer.

H_{03}: There is no significant relationship between attitude and prevalence of risk factors on breast cancer.

The conceptual framework used in this study was based on modified Pender's Health Promotion model is adopted to this study.

The findings of the study were

The demographic variables selected for the study were age, religion, marital status, age at marriage, parity, education, occupation, monthly income and source of information. Majority of the respondents 126(42%) belonged to the age group of 20 – 30 years, 157(52.34%) were Hindus, 100(33.33%) were married, 126(42.%) were aged 25-30 years at the time of marriage, 117(57.07%) belonged to multi parity, 104(34.67%) had high school education, 98(32.67%) were unskilled labours, 152(50.67%) had a monthly income of ₹7000 – 9000 and 152(50.67%) received information through health personnel.

Regarding knowledge, majority 145(48.33%) of women had moderately adequate knowledge, 87(29%) had inadequate knowledge and 68(22.67%) had adequate knowledge on breast cancer.

With respect to attitude, majority 106(35.33%) of women unfavourable attitude, 100(33.33%) had favourable attitude and 94(31.34%) had moderately favourable attitude.

The analysis revealed that, majority 278(92.67%) of women had low level of risk factors, 22(7.33%) had moderate level of risk factors.

The analysis revealed that the mean score of knowledge on breast cancer among women was 15.24 with S.D 5.07 and the mean score of attitude was 60.96 with S.D 22.85. The calculated 'r' value was 0.338 which shows a positive correlation and statistically significant at $p<0.01$ level. This indicates that when the knowledge of women on breast cancer increases their attitude also increases.

Hence the null hypothesis H_{01} stated that there is no significant relationship between knowledge and attitude of risk factors on breast cancer was rejected.

The analysis revealed that the mean score of knowledge on breast cancer among women was 15.24 with S.D 5.07 and the mean score of risk factors was 2.35 with S.D 1.72. The calculated 'r' value was -0.342 which shows a negative correlation and statistically significant at $p<0.01$ level. This indicates that when the knowledge of women on breast cancer increases the risk factors on breast cancer decreases.

Hence the null hypothesis H_{02} stated that there is no significant relationship between knowledge and prevalence of risk factors on breast cancer was rejected.

The analysis revealed that the mean score of attitude on breast cancer among women was 60.96 with S.D 22.85 and the mean score of risk factors was 2.35 with S.D 1.72. The calculated 'r' value was -0.208 which shows a negative correlation and statistically significant at $p<0.01$ level. This indicates that when the attitude of women on breast cancer increases the risk factors on breast cancer decreases.

Hence the null hypothesis H_{03} stated earlier that there is no significant relationship between attitude and prevalence of risk factors on breast cancer was rejected.

With respect to knowledge the analysis revealed that the demographic variable parity had statistically significant association with the level of knowledge at $p<0.05$ level and the other demographic variables had not shown statistically significant association with the level of knowledge among women on breast cancer.

Considering the attitude the analysis revealed that the demographic variables monthly income and source of information had shown statistically significant association with the level of attitude on breast cancer among women at $p<0.05$ and $p<0.001$ level and the other demographic variables had not shown any statistically significant association with the level of attitude on breast cancer among women.

With regard to prevalence of risk factors the analysis revealed that the demographic variables marital status and age at marriage had shown statistically

significant association with the level of risk factors on breast cancer among women at $p<0.05$ level and the other demographic variables had not shown any statistically significant association with the level of risk factors on breast cancer among women.

NURSING IMPLICATIONS

The investigator has derived the following implications from the study which are vital concern in the field of nursing practice nursing administration, nursing education and nursing research.

Nursing Practice

1. The findings of this study suggest, that the nurses are responsible persons in community hospitals and public health centers, for assessing, planning and evaluating the outcome of treatment of breast cancer.

2. Nurses are in the best position to improve the knowledge of patient and their family members regarding self breast examination through health education and counseling services.

3. These findings signify the importance of the formulation and implication of preoperative teaching programme by nurses.

Nursing Education

1. This study has proved that health teaching could improve their knowledge regarding self breast examination. Hence the importance of educating and giving information regarding mammogram can be adopted in the curriculum.

2. Nursing personnel should be given inservice education to update their knowledge regarding breast cancer and develop abilities to identify and early detection of breast cancer.

Nursing Administration

1. These findings help the administrator to arrange continuing education programme for nurses regarding the breast cancer.
2. It helps to prepare adequate learning materials to give health education.

3. It helps to prepare the content of the health teaching which can be printed in booklet and distributed to the home.
4. These finding helps the administrator to encourage the nurses to use different strategies for patient education.
5. The nurses administrator should take the initiation in organizing continuing educational programme on breast cancer for the health care personnel in the hospital and community settings with modern technological video and audio aids.

Nursing Research

1. This study finding identified the pretest level of knowledge and co-operation regarding to encourage further studies on breast cancer among the women in different settings.

2. This study will motivate other investigators to conduct future studies regarding this topic.

RECOMMENDATIONS

1. The extensive use of mass media for generating awareness and in early detection of breast cancer.
2. Give more importance on Breast self examination during health education.
3. An inservice education about the nursing care of breast cancer patient can be given for staff nurses.
4. Women must be taught self breast examination and mammogram to identify the breast cancer earlier.
5. A similar study can be conducted on larger sample size.

LIMITATION

Each sample took nearly 30 – 45 minutes to answer the questionnaire.

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APPENDIX – A

LIST OF EXPERTS FOR CONTENT VALIDITY

1. **Mrs.Celina, M.Sc.(N).,**
   Vice Principal,
   Omayal Achi College of Nursing,
   Avadi, Chennai – 62.

2. **Mrs.Saradha Ramesh, M.Sc.(N)., Ph.D.,**
   Principal,
   Saveetha College of Nursing.

3. **Mrs.Aruna, M.Sc.(N).,**
   Reader,
   Sri Ramachandra College of Nursing,
   Porur.

4. **Dr.G.Jalaja, M.B.B.S., DPH.,**
   Medical Officer,
   Kolathur Health Post,
   Corporation of Chennai.

5. **Dr.C.T.Babu, M.B.B.S.,**
   Asst. Surgeon & AMA,
   Avadi General Hospital.

LETTER SEEKING EXPERTS OPINION FOR CONTENT VALIDITY

From

Ms.A.Anitha
M.Sc.(N) II Year,
Vel R.S Medical College – College of Nursing,
Avadi, Chennai – 600 062.

To

Respected Madam/Sir,

Sub: Requisition for expert opinion on suggestion for content validity of the tools.

I am Ms.A.Anitha, a student of M.Sc.(Nursing)- II year at Vel R.S Medical College - College of Nursing, Avadi, Chennai – 62, affiliated to Dr.M.G.R.Medical University, Chennai.

As a partial fulfillment of the requirement in the M.Sc. Nursing Programme, I have to complete a dissertation the topic I have selected is **"A study to assess the knowledge, attitude and prevalence of risk factors on breast cancer among women aged (20 – 50 years) at Vellanur village, Thiruvallur Dirictst. 2010-2011 ".**

Herewith I am sending the developed tools for content validity and for your expert opinion and valuable suggestions.

Thanking you,

Yours sincerely,

(A.ANITHA)

Enclosures:

1. Statement and objectives of the study
2. Blue print of the tools
3. Content validity certificate

CERTIFICATE FOR CONTENT VALIDITY

This is to certify that the tools developed by **Ms.A.Anitha,** M.Sc. Nursing student Vel R.S. Medical College – College of Nursing, Chennai on the topic, **"A study to assess the knowledge, attitude and prevalence of risk factors on breast cancer among women aged (20 – 50 years) at Vellanur Village, Thiruvallur District. 2010-2011"** is validated by the undersigned and she can proceed with this tool to conduct the main study.

Place : Chennai

Date : **Signature**

APPENDIX – B

INTRODUCTION

Dear Participants,

I Miss.A.Anitha, M.Sc.(N) II Year student from Vel R.S.Medical College – College of Nursing, Avadi, Chennai. I would like to A study to assess the knowledge, attitude and prevalence of risk factors on breast cancer among women aged (20 – 50 years) at Vellanur Village, Thiruvallur District. I request you to participate in the study. A structured interview questionnaire, 5 Point Likert scale and checklist will be used to assess the knowledge, attitude and prevalence of risk factors. I assure you that the responses given by you will be used only for my study purpose. So I request you to kindly give your full co-operation and willingness.

Thanking you.

SECTION - A

DEMOGRAPHIC VARIABLES

1. Age in years ☐

a) 20 – 30

b) 30 – 40

c) 40 – 50

2. Religion ☐

a) Hindu

b) Muslim

c) Christian

d) Others

3. Marital Status ☐

a) Unmarried

b) Married

c) Widow

d) Separated

If Married ☐

3. (i). Age at marriage

a) < 20

b) 20 – 25

c) 25 – 30

d) 30 – 35

e) > 35

4. Parity ☐

a) Nulli parity

b) Multi parity

c) Single parity

5. Education ☐

a) Non literate

b) Primary school education

c) High school education

d) Higher secondary school education

f) Graduate

6. Occupation ☐

a) Unemployed

b) Unskilled labor

c) Skilled labor

d) Professional

e) Retired

7. Monthly family income ₹. ☐

a) Less than 5000

b) 5000 – 7000

c) 7000 – 9000

d) Greater than 9000

8. Source of information ☐

a) Mass media

b) Health Personal

c) Neighbors

d) Others

SECTION - B

KNOWLEDGE QUESTIONS ON BREAST CANCER

General:

1. **The term cancer means**
   a) Uncontrolled, unregulated growth of the cell
   b) Normal proliferation of the cell
   c) Regulated growth of the cell.

2. **Which are common cancer in the female?**
   a) Stomach & liver
   b) Oral & Lung
   c) cervix & breast

3. **The term of breast cancer is known as**
   a) Abnormal uncontrolled growth of cells in the breast.
   b) Inability of breast to produce milk
   c) Abnormal shape of breast.

4. **Breast cancer is _____ disease.**
   a) Air borne
   b) Water borne
   c) Hereditary

Causes:

5. **Which hormone enhances tumor growth?**
   a) Estrogen & progesterone
   b) Thyroxin hormone
   c) Anti diuretic hormone

6. **Breast cancer is due to**
   a) Inherited mutation in the BRCA 1 & BRCA 2.
   b) Exposure to cold
   c) Infection

7. It is one of the cause of breast cancer?

a) Dense breast tissue

b) Taking low fat diet

c) Hypothyroidism

Breast cancer Risk Factors

8. One of the risk factors of breast cancer?

a) Nulliparity

b) Multiparity

c) Single parity

9. The increased risk factors for the development of breast cancer is

a) Exposure to radiation

b) Past history of any illness

c) Exposure to heat

10. Which is the contributing factors for breast cancer?

a) Early marriage
b) Breast feeding
c) late menopause

11. Use of birth control pills

a) Cure the breast cancer

b) Increased the risk of breast cancer

c) Have no effect on breast cancer

Signs & Symptoms

12. It is the one of the signs & symptoms of breast cancer

a) Nipple retraction

b) Vomiting

c) Milky nipple discharge

13. The signs & symptoms of breast cancer is

a) Orange peel appearance of the skin

b) Thinning of the skin

c) Epigastric pain

Diagnostic evaluation

14. Breast lump is easily detected by

a) Breast self examination
b) X-ray
c) Blood test.

15. Mammography is the x-ray image of the breast tissue is to detect

a) Breast cancer
b) Ovarian cancer
c) Cervical cancer.

16. The mammogram is recommended once in

a) A year
b) 2 years
c) 3 years

Breast Self Examination

17. Breast self examination should be performed once in

a) A day
b) A week
c) A month

18. Breast self examination can be carried out

a) By individual herself
b) Need assistance
c) Health assistance

19. During breast self examination the room should be

a) Well lightened
b) Dim
c) Closed & dark

20. Suitable period for breast self examination

a) 5 – 7 days after menstruation
b) 5 – 7 days before menstruation
c) During ovulation

21. The importance of breast self examination is to

a) Maintain of breast shape & size
b) Observe change in shape & size, presence of lumps
c) Maintain position

22. What is the technique used for self breast examination

a) Inspection & palpation
b) Palpations
c) Auscultations

Treatment

23. The method of treatment for breast cancer

a) Acupressure
b) Biotherapy
c) Chemotherapy, radiation & surgical removal of breast.

24. Breast reconstruction means.

a) Artificial modulation of breast
b) Removal of breast
c) Removal of lymph nodes

Prevention

25. The best diet lower the risk of breast cancer is

a) Low fat diet
b) High protein diet
c) High fat diet

26. The one of the preventive measures for breast cancer

a) Breast feeding
b) Taking oral contraceptives pill
c) First pregnancy after 30 years

Scoring

<50%	-	Inadequate knowledge
50 – 70%	-	Moderate Knowledge
>70%	-	Adequate Knowledge

SECTION – C

ATTITUDE SCALE ON BREAST CANCER

Sl . No.	QUESTIONS	Strongly agree	Agree	Uncertain	Disagree	Strongly Disagree
I	**Causes**					
1	Hereditary or genes are responsible for the developments of breast cancer.					
2	Estrogen and Progesterone are the one of the causes of breast cancer.					
II	**Risk Factor**					
3	Late menopause will not lead to breast cancer					
4	Obesity will not lead to breast cancer					
III	**Signs & Symptoms**					
5	Breast cancer is detected as a lump					
6	If lump is present it will cure naturally					
IV	**Diagnostic Evaluation**					
7	Biopsy is not indicated to detect breast cancer					
8	Mammogram is needed to detect breast cancer					
V	**Breast Self Examination**					
9	The importance of breast self examination is to observe, any change in shape & size presence of lumps					
10	Breast self examination is difficult to learn & perform					
11	Breast self examination requires lot of skill					
12	Breast self examination is a painful procedure					
13	Breast self examination enhances early detection & treatment of breast cancer.					
VI	**Screening**					
14	All women need cancer screening					
15	Young women need to go for regular cancer screening					
VII	**Prevention & Treatment**					
16	Every women should know to examine their own breast					

Sl . No.	QUESTIONS	Strongly agree	Agree	Uncertain	Disagree	Strongly Disagree
17	After menopause regular checkup is necessary					
18	Breast cancer is curable if detected early & treated promptly					
19	Radiation therapy is not required for breast cancer.					
20	Surgery is the only treatment for the breast cancer					

Score:

For Positive Items:			**For Negative Items:**		
Strongly Agree	-	5	Strongly Disagree	-	5
Agree	-	4	Disagree	-	4
Uncertain	-	3	Uncertain	-	3
Disagree	-	2	Agree	-	2
Strongly Disagree	-	1	Strongly Agree	-	1

Interpretation:

<50%	-	Unfavourable attitude
50 – 70%	-	Moderately favourable attitude
>70%	-	Favourable attitude

SECTION – D

RISK FACTORS ON BREAST CANCER.

S.No	Questions	Yes	No
1	Is there any one in your family members suffering from breast cancer(1° - mothers, sister daughter)?		
2	Did you attained Menarche at the age of below 12?		
3	Is your first pregnancy above 30 years?		
4	Are you Null parity?		
5	Have you breast feed your child [less than six years (all children combined)] ?		
6	Have you exposed to radiation?		
7	Have you used oral contraceptives? (at least 6 months)		
8	Do you have habit of consuming alcohol?		
9	Do you have habit of smoking?		
10	BMI 30 to 50 (obesity)?		
11	**Medical Report** Whether you are taking any hormonal therapy after your menopause?		

Scoring:

If yes Risk, If no – No risk

0 – No risk

1 – 4 Low risk

5 – 8 Moderate risk

9 – 11 High risk

முகவுரை

வணக்கம்

நான் வேல் ஆர்.எஸ் மருத்துவ கல்லூரி - செவிலியர் கல்லூரியில் முதுகலை பட்டப் படிப்பு இரண்டாம் ஆண்டு செவிலியர் கல்வி பயில்கின்றேன். நான் என் படிப்பின் ஒரு பகுதியாக மார்பக புற்றுநோய் பற்றி (20 – 50) வயது வரை உள்ள பெண்களின் அறிவுத்திறன், மனப்பாங்கு மற்றும் அபாய காரணிகளை கண்டறியும் ஒரு ஆய்வை நடத்துகிறேன். இதன் தொடர்பாக நான் தங்களை எனது ஆய்வின் பங்கேற்பாளராக இணைத்துக்கொள்ள மிக தாழ்மையுடன் கேட்டுக் கொள்கிறேன். இதன் தொடர்பாக நான் கேட்கும் கேள்விகளுக்கு சரியான உங்கள் பதிலை தெரிவிக்கவும். உங்கள் பதிலை நான் என் ஆய்விற்காக மட்டும் பயன்படுத்துவேன் என்று உறுதியளிக்கிறேன்.

நன்றி

தகவலாளர் விவரம்

1. வயது வருடத்தில் ☐

அ) 20 – 30

ஆ) 30 – 40

இ) 40 – 50

2. மதம் ☐

அ) இந்து

ஆ) இஸ்லாமியம்

இ) கிருத்துவம்

ஈ) மற்றவை

3. திருமணத்தகுதி ☐

அ) திருமணம் ஆகாதவர்

ஆ) திருமணம் ஆனவர்

இ) விதவை

ஈ) தனித்து வாழ்பவர்

திருமணமாகியிருந்தால் ☐

3(i) திருமணத்தின் போது வயது

அ) 20 வயதிற்கு கீழ்

ஆ) 20 – 25

இ) 30 – 35

ஈ) 35க்கு மேல்

4. குழந்தை பேறு பற்றி விவரம் ☐

அ) குழந்தை பேறு பெறாதவர்

ஆ) பல குழந்தை பெற்றவர்

இ) ஒரு குழந்தை மட்டுமே பெற்றவர்

5. கல்வித்தகுதி

அ) படிப்பறிவு இல்லாதவர்

ஆ) ஆரம்பக் கல்வி

இ) உயர்நிலைக்கல்வி

ஈ) மேல்நிலை கல்வி தகுதி

6. தொழில்

அ) வேலையில்லாதவர்

ஆ) திறன் இல்லாத வேலை

இ) திறன் பெற்ற வேலை

ஈ) பயிற்சி பெற்ற திறமையான வேலை

உ) பணி ஓய்வு பெற்றவர்

7. குடும்பத்தின் மாத வருமானம்

அ) ரூ.5000க்கு கீழ்

ஆ) ரூ.5000 – 7000

இ) ரூ.7000 – 9000

ஈ) ரூ.9000க்கு மேல்

8. தகவல் கிடைத்த விவரம்

அ) தகவல் சாதனம் மூலம்

ஆ) மருத்துவ துறை சார்ந்தவர்

இ) சுற்றத்தார் மூலம்

ஈ) மற்றவர்களால்

அறிவுத்திறன் நேர்முக வினாத்தாள்

பொதுவான அறிவுத்திறன்:

1. மார்பக புற்று நோய் என்பது

அ) கட்டுப்படுத்தமுடியாத செல்களின் வளர்ச்சி நிலை

ஆ) செல்களின் இயல்பான பெருக்கம்

இ) செல்களின் முறைப்படுத்தப்பட்ட வளர்ச்சி

2. எந்த புற்றுநோய் பெண்களுக்கு அதிகமாக ஏற்படுகிறது?

அ) இரைப்பை மற்றும் கல்லீரல் புற்று நோய்

ஆ) வாய் மற்றும் நுரையீரலில் ஏற்படும் புற்று நோய்

இ) பிறப்புறுப்பு மற்றும் மார்பக புற்று நோய்

3. மார்பக புற்று நோய் என்பது

அ) மாறுபட்ட கட்டுப்படுத்தப்படாத மார்பக செல்களின் வளர்ச்சி

ஆ) பால் உற்பத்தி செய்யும் திறன் இன்மை

இ) மாறுபட்ட மார்பக நிலை

4. மார்பக புற்று நோய் ஒரு _____ நோய்

அ) காற்று மூலமாக பரவக்கூடிய நோய்

ஆ) நீர் மூலமாக பரவக்கூடிய நோய்

இ) தலைமுறை சார்ந்த நோய்

காரணிகள்:

5. புற்றுநோய் கட்டியின் வளர்ச்சியை துரிதப்படுத்தும் ஹார்மோன் எது?

அ) ஈஸ்ட்ரோஜன் மற்றும் புரோஜஸ்ட்ரான்

ஆ) தைராக்ஸின் ஹார்மோன்

இ) ஆன்டி டையுரட்டிக் ஹார்மோன்

6. மார்பக புற்று நோய்க்கான காரணம்

அ) $BRCA_1$ மற்றும் $BRCA_2$ மரபணுக்களில் ஏற்படும் மாற்றத்தினால்

ஆ) குளிர்ச்சிக்கு ஆட்படுதல்

இ) நோய் தொற்று

7. மார்பக புற்றுநோய் ஏற்படுவதற்கு இதுவும் ஒரு காரணி

அ) அடர்த்தியான மார்பக திசு

ஆ) மிக குறைவான கொழுப்பு உணவை எடுத்துக்கொள்வது

இ) ஹைப்போதைராடிஸம்

மார்பக புற்றுநோயை தோற்றுவிக்கும் காரணிகள்:

8. மார்பக புற்று நோய் ஏற்பட வாய்ப்பு உள்ள காரணி

அ) குழந்தை பேறு இல்லாதவர்

ஆ) ஒன்றுக்கு மேற்பட்ட குழந்தை உள்ளவர்

இ) ஒரு குழந்தை உள்ளவர்

9. மார்பக புற்றுநோய் வளர்ச்சியை அதிகப்படுத்தும் காரணி

அ) கதிவீச்சுக்கு உட்படுதல்

ஆ) முன்பு ஏற்பட்ட வியாதி

இ) வெப்பத்திற்கு உட்படுதல்

10. மார்பக புற்றுநோய்க்கு பங்களிக்கும் காரணி எது?

அ) 18 வயது முன்பாக திருமணம் செய்து கொள்வது

ஆ) தாய்ப்பால் கொடுத்தல்

இ) 50 வயதிற்கு மேல் மாதவிடாய் சுழற்சி முடிவடைதல்

11. கருத்தட சாதனம் உபயோகித்தல்

அ) மார்பக புற்றுநோயை குணப்படுத்தும்

ஆ) மார்பக புற்றுநோய் ஏற்பட வாய்ப்பு அதிகம் உள்ளது

இ) மார்பக புற்றுநோய் ஏற்படும் வாய்ப்பு குறைவு

மார்பக புற்றுநோயின் அறிகுறிகள்:

12. இதுவும் மார்பக புற்றுநோயின் ஒரு அறிகுறி

அ) முலைக்காம்பு உள்ளிருத்தல்

ஆ) வாந்தி

இ) முலைக்காம்பிலிருந்து பால் வெளியேறுதல்

13. மார்பக புற்றுநோயின் அறிகுறி

அ) ஆரஞ்சு நிறத்தில் தோல் (அ) மார்பக தோலில் ஏற்படும் சுறுக்கம்

ஆ) தோல் மெலிந்து போதல்

இ) வாய்வினால் ஏற்படும் வலி

ஆய்வின் மதிப்பீடுகள்:

14. மார்பக கட்டியை சுலபமாக கண்டறியும் வழிமுறை

அ) மார்பக சுய பரிசோதனை

ஆ) நிழற்படம்

இ) இரத்த பரிசோதனை

15. மேமோகிராம் நிழற்படம் எதை கண்டறிய பயன்படுகிறது.

அ) மார்பக புற்றுநோய்

ஆ) கருப்பை புற்றுநோய்

இ) பிறப்புறுப்பு புற்றுநோய்

16. மேமோகிராம் பரிந்துரைக்கப்படுவது

அ) வருடத்திற்கு ஒரு முறை

ஆ) வருடத்திற்கு இரு முறை

இ) வருடத்திற்கு மூன்று முறை

மார்பக சுய பரிசோதனை:

17. மார்பக புற்றுநோய் எப்பொழுது மேற்கொள்ளலாம்

அ) ஒரு நாளுக்கு ஒரு முறை

ஆ) வாரத்திற்கு ஒரு முறை

இ) மாதத்திற்கு ஒரு முறை

18. மார்பக சுய பரிசோதனை எவ்வாறு மேற்கொள்ளலாம்

அ) தானாகவே ஒருவர் மேற்கொள்ளலாம்

ஆ) அதை செய்வதற்கு துணை ஒருவர் வேண்டும்

இ) யாரேனும் மருத்துவதுறை சார்ந்த ஒருவர் வேண்டும்

19. மார்பக சுய பரிதோனையின் போது அந்த அறை எவ்வாறு இருக்க வேண்டும்

அ) வெளிச்சமாக

ஆ) வெளிச்சம் குறைவான அறை

இ) நன்றாக மூடிய இருட்டு அறை

20. மார்பக சுய பரிதோதனை செய்ய ஏதுவான தருணம்

அ) மாதவிடாய் சுழற்சி தொடங்கி 5 – 7 நாட்களுக்குள் செய்ய வேண்டும்

ஆ) மாதவிடாய் சுழற்சி தொடங்கும் 5 – 7 நாட்களுக்கு முன்பு

இ) கருமுட்டை உருவாகும் நேரத்தில்

21. மார்பக சுய பரிசோதனையின் முக்கியத்துவம்

அ) மார்பகத்தின் அளவையும் அதனுடைய தன்மையும் பரிசோதிக்க

ஆ) மார்பகத்தின் அளவு அதனுடைய தன்மை மற்றும் ஏதேனும் கட்டிகள் இருக்கிறதா என தெரிந்து கொள்வதற்கு

இ) மார்பகத்தின் வளர்ச்சியை கண்டறிய

22. மார்பக சுய பரிசோதனை எவ்வாறு மேற்கொள்ளலாம்

அ) கூர்ந்து நோக்குதல்

ஆ) தொடுமுறையில் பரிசோதனை செய்தல்

இ) மருத்துவ உபகரணைகளை வைத்து பரிசோதனை செய்தல்

சிகிச்சை முறை:

23. மார்பக புற்று நோய்கான சிகிச்சை முறை

அ) அக்குபிரஷர்

ஆ) பயோதெரபி

இ) கிமோதெரபி, கதிர்வீச்சு மற்றும் மார்பகத்தை அகற்றுதல்

24. மார்பகம் மாற்றி அமைப்பது என்பது

அ) செயற்கை முறையில் மார்பகத்தை மாற்றி அமைத்தல்

ஆ) மார்பகத்தை அகற்றுதல்

இ) மார்பக கட்டியை அகற்றுதல்

தடுப்பு முறைகள்:

25. மார்பக புற்றுநோய் ஏற்படுவதை குறைக்கும் உணவு

அ) கொழுப்பு அதிகம் இல்லாத உணவுப்பொருள்

ஆ) புரதம் அதிகம் உள்ள உணவுப்பொருள்

இ) கொழுப்பு நிறைந்த உணவுப்பொருள்

26. மார்பக புற்று நோயை தடுக்கும் ஒரு வழிமுறை

அ) தாய்ப்பால் புகட்டுதல்

ஆ) கருத்தடை மாத்திரை உபயோகித்தல்

இ) முதல் குழந்தை பேறு 30 வயதிற்கு பிறகு

மார்பக புற்றுநோய் பற்றிய மனப்பாங்கை அறியும் அளவுகோல்

வ.எண்.	வினாக்கள்	தி.ஒ	ஒ	உ	ம	தி.ம
I	**காரணிகள்:**					
1	மார்பக புற்று நோய்க்கு காரணமாக அமைவது மரபனுக்கள் (அ) பரம்பரை.					
2	ஈஸ்ட்ரோஜன் புரஜஸ்ட்ரோன் ஹார்மோன் புற்று நோயை வளர்ச்சி காரணமாக அமைகிறது.					
II	**அபாயக் காரணிகள்:**					
3	காலந்தாழ்ந்த மாதவிடாய் விலகல் மார்பக புற்று நோயை எற்படுத்தாது.					
4	உடல் பருமன் மார்பக புற்று நோயை ஏற்படுத்தாது.					
III	**அறிகுறிகள்:**					
5	மார்பக புற்றுநோய் முதலில் ஒரு கட்டியாக காணப்படும்.					
6	புற்றுநோய் கட்டி இயற்கையான முறையில் குணமாகிவிடும்.					
IV	**மதிப்பீடுகள்:**					
7	திசு பரிசோதனை மார்பக புற்று நோயை கண்டறிவதற்கான வழிமுறை அல்ல.					
8	மார்பக புற்றுநோய் கண்டறிவதற்கு மேமோகிராம் பரிசோதனை தேவை.					
V	**மார்பக சுய பரிசோதனை:**					
9	மார்பகத்தின் வடிவம் அளவு இவற்றில் ஏற்படும் ஏதாவது மாற்றத்தையோ மற்றும், புற்றுநோய் கட்டிகள் தோன்றியிருப்பதையோ கண்டறிய மார்பக சுய பரிசோதனை முக்கியத்துவம் வாய்ந்தது.					
10	மார்பக சுய பரிசோதனை கற்று கொள்ளவும் மற்றும் செய்து பார்க்கவும் மிகவும் கடினமானது.					

வ.எண்.	வினாக்கள்	தி.ஒ	ஒ	உ	ம	தி.ம
11	மார்பக சுய பரிசோதனை செய்வதற்கு நிபுனத்துவம் தேவை.					
12	மார்பக சுய பரிசோதனை என்பது மிகுந்த வலி தரக்கூடிய செயல்முறையாகும்.					
13	மார்பக சுய பரிசோதனை மார்பக புற்றுநோயை முன் கூட்டியே கண்டறிந்து சிகிச்சை அளிக்க துணை புரிகிறது.					
VI	**பரிசோதனை:**					
14	எல்லா பெண்களுக்கும் புற்றுநோய் பரிசோதனை செய்யப்பட வேண்டும்.					
15	இளம் பெண்கள் குறிப்பிட்ட கால இடவெளியில் புற்றுநோய் பரிசோதனை செய்து கொள்ள வேண்டும்.					
VII	**தடுப்பு மற்றும் சிகிச்சை முறைகள்:**					
16	எல்லா பெண்களும் தங்களுடைய மார்பகங்களை பரிசோதிக்க தெரிந்திருக்க வேண்டும்.					
17	மாதவிடாய் நின்றபிறகு கால இடைவெளியில் பரிசோதனை செய்ய வேண்டும்.					
18	மார்பக புற்றுநோய் ஆரம்ப நிலையிலேயே கண்டறிந்து முறையான சிகிச்சை அளித்தால் மார்பக புற்றுநோய் குணப்படுத்தக்கூடியது.					
19	மார்பக புற்றுநோயை குணப்படுத்த கதிரியக்க சிகிச்சை தேவை இல்லை.					
20	அறுவை சிகிச்சை மூலமே மார்பக புற்றுநோயை குணப்படுத்த முடியும்.					

<u>குறிப்பு:</u>

தி.ஒ. - திடமாக ஒப்புக்கொள்கிறேன்.

ஒ - ஒப்புக்கொள்கிறேன்.

உ - உறுதியில்லை

ம - மறுக்கிறேன்

தி.ம - திடமாக மறுக்கிறேன்

மார்பக புற்று நோய் அதிகமாக ஏற்படும் காரணிகள்

வ.எண்.	கேள்விகள்	ஆம்	இல்லை
1	உங்கள் குடும்பத்தில் தாய்வழி (1^0 தாய், சகோதரி) இவர்களுக்கு மார்பக புற்றுநோய் இருக்கிறதா?		
2	உங்கள் பூப்பெய்திய வயது 12 வயதிற்கு குறைவானதா?		
3	உங்கள் முதல் குழந்தைபேறு 30 வயதிற்கு மேற்பட்டதா?		
4	நீங்கள் குழந்தைபேறு இல்லாதவரா?		
5	உங்கள் குழந்தைக்கு 6 வருடத்திற்கு குறைவாக தாய்ப்பால் கொடுத்துள்ளீர்களா?		
6	நீங்கள் அதிகப்படியான கதிர்வீச்சிற்கு உட் பட்டிருக்கிறீர்களா?		
7	நீங்கள் கருத்தடை மாத்திரை உபயோகப்படுத்தி உள்ளீர்களா? (குறைந்தது 6 மாதம்)		
8	உங்களுக்கு குடிபழக்கம் உள்ளதா?		
9	உங்களுக்கு புகை பிடிக்கும் பழக்கம் உள்ளதா?		
10	உங்களின் உடல் எடை உயரம் விகித குறையீடு (BMI) (உடன் பருமன்) (30 முதல் 50) உடையதா?		
11	நீங்கள் மாதவிடாய் முடிந்த பிறகு ஏதேனும் ஹார்மோன் சிகிச்சை எடுத்து உள்ளீர்களா?		

VEL R.S. Medical College

(College of Nursing)

Owned by R.S. Trust

(Approved by Govt. of Tamil Nadu,
Indian Nursing Council, New Delhi, Tamil Nadu Nurses & Midwives Council &
Affliated to The Tamil Nadu Dr. M.G.R. Medical University)
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Website : WWW.vel-tech.org
Phone : 26841093 Fax : 26841601

To

Mr. Gandhi M.C
Villivakkam Councellor
Vellanur.
Chennai - 600 062.

Sub: Seeking permission for conducting main study project.

Respected Sir/Madam,

This is to introduce Ms. A.Anitha (Community Health Nursing) Master Degree Nursing student of this college. She has selected the following topic for her research study to be submitted to the Tamil Nadu Dr. MGR medical university as partial fulfillment of the master degree in nursing program.

The topic for the study is, " A study to assess the knowledge, attitude and prevalence of risk factors on breast cancer in selected setting at (Vellanur,Avadi)."

I assure you that our student will abide by the rules and regulations of the setting. I request your at most help in regard to the same.

Thanking you!

Date: 13.5.2010

Place: Avadi

Mrs.M.Anuradha
PRINCIPAL

PRINCIPAL
VEL R. S. MEDICAL COLLEGE
(COLLEGE OF NURSING)
42, AVADI-ALAMATHI ROAD
VELLANUR, CHENNAI-62

G. காந்தி

CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to Certify that the dissertation Work **"A study to assess the level of Knowledge, attitude and Prevalence of risk factors on breast Cancer at Vellanur Village Thiruvallur District, 2010 – 2011"** done by Ms.A.Anitha, II year M.Sc.,[Nursing] Student of Vel. R.S Medical College of Nursing, Chennai is edited for English Language appropriateness by _____.

Name: T-KALAIMATHI

Signature:

T. KALAIMATHI, M.A., M.Ed.
P.G. Asst. in English,
Govt. Hr. Sec. School (Girls)
KATTUMANNARKOIL-608 3

CERTIFICATE OF TAMIL EDITING

TO WHOMSOVERT MAY CONCERN

This is to certify that the Tamil Version of tool used for the dissertation Work **"A Study to assess the lave of knowledge, attitude and Prevalence of risk factors on Cancer among women aged 20 – 25 years at Vellanur village, Thiruvallur District 2010-2011"** done by Ms. A. Anitha II year M.Sc., (Nursing) Student of Vel R. S. Medical College of Nursing, Chennai is edited for Tamil Language appropriateness by _____.

Name: C.ANBALAGAN.

Signature:

சி. அன்பழகன், எம்.ஏ.எம்.எட்.,
முதுகலைத் தமிழாசிரியர்,
அரசு பெண்கள் மே.நி.பள்ளி,
வாட்டுமன்னார்கோயில்.

What is meant by Breast Cancer?

Breast cancer is defined as abnormal, uncontrolled growth of the cells in the breast.

Incidence

In world wide, 11,51,298 women were affected by breast cancer every year. Out of this 4,10,712 death occurs every year. In India 82,951 women were affected by breast cancer every year. Out of this 42,913 death occurs every year .

Causes

- Genetic cause
- Dense breast tissues
- Estrogen and progesterone enhances tumour growth
- Exposure to harmful chemicals

Risk Factors

- Family members suffered from breast cancer (1°- Mother, Sister)
- Menarche attained below 12 years
- Late menopause (After 50 years)
- First pregnancy above 30 years
- Avoiding breast feeding
- Consuming alcohol
- Taking high fat diet
- Smoking
- Exposure to radiation
- Any hormonal therapy after menopause
- Other cancer including uterus, ovary colon cancer
- Intake of oral contraceptives

Clinical Symptoms

- Nipple retraction
- Non milky nipple discharge
- Bleeding
- Thickening of the skin
- Crusting or scaling on the nipple
- Dimpling or puckering of the skin
- Orange peel appearance of the skin
- Lump or swelling in the armpit
- Swelling redness in the affected breast
- Breast pain

Diagnostic Evaluation

- Breast self examination
- Mammogram
- Ultra sonography
- Surgical biopsy
- Fine needle aspiration
- Clinical examination
- Magnetic resonance imaging

Treatment

- Chemotherapy
- Radiation therapy
- Surgical removal of breast

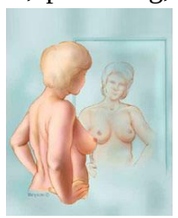

1

Breast Self Examination

Breast self Examination recommended monthly once after 5th to 7th day of menstruation

Step I

1. Stand before a mirror.
2. Check both breasts for anything unusual.
3. Look for discharge from the nipple, puckering, dimpling or scaling of the skin.
4. The next two steps are done to check for any changes in the contour of your breasts. As you do them, you should be able to feel your muscle tighten.



Step 2:

1. Watch closely in the mirror as you clasp your hands behind your head and press your hands forward.
2. Note any change in the contour in the contour of your breast.


2

Step 3:

1. Next press your hands firmly on your hips and bow slightly towards the mirror as you pull your shoulders and elbows forward.
2. Note any change in the contour of your breast.

Some women do the next part of the examination in the shower. Your fingers will guide easily over soapy skin, so you can concentrate on feeling for changes inside the breast.


4

Step 4:

1. Raise your left arm.
2. Use 3 or 4 fingers of your right hand to feel your left breast firmly, carefully and thoroughly.
3. Beginning at the outer edge, press the flat part of your fingers in small circles moving the circles slowly around the breast.
4. Gradually work forward the nipple.
5. Be sure to cover the whole breast.
6. Pay special attention to the area between the breast and the underarm including the underarm itself.
7. Feel for any unusual the underarm itself.
8. If you have any spontaneous discharge during the month whether or not it is during the month.
9. Repeat the examination on your right breast.

Step 5:

1. Step 4 should be repeated lying down.
2. Lie flat on your back with your left arm over your head and a pillow or polluted towel under your left shoulder.

BSE variations in breast tissue occur during the menstrual cycle, pregnancy and menopause. Most women increased tenderness and lumpiness before their menstrual period; therefore BSE is best performed after menstruation [day 5 to 7 counting the first day of menses as day1]

Mammography is a breast – imaging technique that can detect non palpable lesions and assist in diagnosing palpable masses. It takes 20 minutes.

Prevention

- Self breast examination
- First pregnancy before 30 years
- Taking hormonal therapy after menopause according to physician
- Avoid taking of oral contraceptives
- Avoid alcoholism
- Avoid fat diet
- Regular exercise
- Avoid smoking
- Avoid exposure to radiation

Conclusion

During breast self examination, if there is any change in shape and size, presence of lumps in the breast it is advisable to consult with the doctor.

Pamphlet on Breast Cancer

மார்பக புற்றுநோய் என்றால் என்ன?

மார்பக புற்றுநோய் என்பது மார்பக செல்களில் ஏற்படும் மாறுபட்ட அபரிவிதமான வளர்ச்சி நிலை ஆகும்.

மார்பக புற்றுநோயின் சராசரியான மதிப்பீடு

உலக அளவில் 11,51,298 பெண்கள் மார்பக புற்றுநோயால் ஒவ்வொரு வருடமும் பாதிக்கப்படுகின்றனர். அதில் 4,10,712 பெண்கள் புற்றுநோயால் இறக்கின்றனர். இந்தியாவில் உள்ள மக்கள் தொகையில், 82,951 பெண்கள் மார்பக புற்று நோயால் ஒவ்வொரு வருடமும் பாதிக்கப்படுகின்றனர். அதில் 42,913 பெண்கள் புற்றுநோயால் இறக்கின்றனர்.

மார்பக புற்றுநோயின் காரணிகள்

மார்பு புற்று நோய்க்கு சரியான காரணி கண்டுப்பிடிக்கப் படவில்லை. ஆனால் சில காரணிகளால் ஏற்பட வாய்ப்புள்ளது, அவை 1) ஜீன்களில் ஏற்படும் மாற்றங்களினால் 2) அடர்த்தியான மார்பக திசுக்கள் 3) ஈஸ்ரோஜன் மற்றும் புரோஜஸ்ட்ரான் ஹர்மோன்களினால் 4) இரசாயன நச்சுகளுக்கு உட்படுதல்.

மார்பக புற்றுநோய் அதிகமாக ஏற்பட வாய்ப்பு உள்ளவர்கள்

- குடும்பத்தில் தாய்வழி, தாய், சகோதரி, இவர்கள் யாருக்கேனும் மார்பக புற்று நோய் இருந்தால்
- பூப்பெய்திய வயது 12 வயதிற்கு குறைவான வயதில் இருந்தால்
- மாதவிடாய் சுழற்சி 50 வயதிற்கு பிறகு முடிவடைந்தால்
- முதல் கருத்தரிப்பு 30 வயதிற்கு பிறகு
- தாய்ப்பால் சரிவர கொடுக்காதவர்களுக்கு (தாய்ப்பால் 6 வருடங்களுக்கு குறைவாக கொடுத்திருந்தால்).
- குடிபழக்கம் உள்ளவர்களுக்கு
- அதிகபடியான கொழுப்புச்சத்து நிறைந்த உணவு உட்கொள்வதால்
- புகைப்பிடித்தல்
- அதிகமாக கதிர்வீச்சிற்கு உட்பட்டவர்களுக்கு
- மாதவிடாய் சுழற்சி முடிவடைந்தபின் ஏதேனும் ஹார்மோன் சிகிச்சை எடுத்துக்கொண்டால்
- உடலின் மற்ற உறுப்புகளில் (கருப்பை பெங்குடல்) புற்றுநோய் பாதிப்பு இருந்தால்
- கருத்தடை மாத்திரை 5 வருடத்திற்கு மேல் உபயோகிப்பவர்கள்.

மார்பக புற்று நோயின் ஆரம்ப அறிகுறிகள்

- மார்பகத்தின் அளவு மற்றும் வடிவத்தில் மாற்றம் ஏற்படுதல்
- கெட்டியான நிலையான வலியற்ற கட்டி
- மார்பகத்தில் வலி ஏற்படுதல்
- முலைக்காம்பில் வலியிருந்தால்
- ஆரஞ்சு நிறத்திலான தோல் (அ) மார்பக தோலில் ஏற்படும் சுறுக்கம்
- மார்பகம் சிவந்து காணப்படும்.
- மார்பக கட்டி அல்லது அக்குளில் ஏற்படும் நெரிக்கட்டி
- முலைக்காம்பு உள்ளிருந்தால்
- முலைகாம்பிலிருந்து இரத்தம் வடிதல்
- மார்பகம் வீக்கத்துடன் காணப்படும்.

மார்பக புற்றுநோயின் கண்டறியும் வழிமுறைகள்

- சுயமார்பக பரிசோதனை
- மேமோகிராம் எனப்ப்டும் மார்பக எக்ஸ்ரே பரிசோதனை
- திசுக்களை பரிசோதித்தல்
- மருத்துவ மார்பக பரிசோதனை
- அல்ட்ரா சோனோகிராபி (ஸ்கேன்)
- எம்.ஆர்.ஐ

மார்பக புற்றுநோய்க்கான சிகிச்சை முறைகள்

1. கீமோதெரபி சிகிச்சை
2. கதிர்வீச்சு சிகிச்சை
3. பாதிப்பிற்குள்ளான மார்பகத்தை அகற்றுதல்

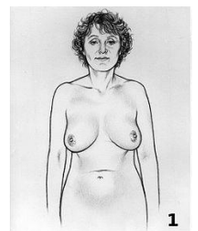
இந்த சிகிச்சையினால் புற்றுநோய் மற்ற உறுப்புகளுக்கு பரவுவதை தடுக்கலாம்.

மார்பக புற்று நோய் ஏற்பட்டு சிகிச்சை செய்வதை விட முன்பே வராமல் தடுப்பதே சிறந்த வழியாகும்.

சுயமார்பக பரிசோதனையின் வழிமுறைகள்

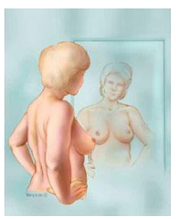
சுயமார்பக பரிசோதனை மாதத்திற்கு ஒரு முறை செய்ய வேண்டும்.

சுய மார்பக பரிசோதனை செய்ய வேண்டிய நாட்கள்



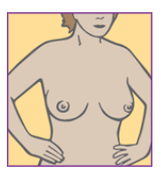
மாதவிடாய் சுழற்சி தொடங்கி 5 முதல் 7 நாட்களுக்கு முடிவடைந்தபின் செய்ய வேண்டும்.

சுயமார்பக பரிசோதனை என்பது ஒவ்வொரு பெண்களும் தாங்களாகவே பரிசோதனை செய்து ஏதேனும் சதைப்பற்று இருந்தாலோ அல்லது கட்டியாக இருந்தாலோ தானாகவே ஆராய்ந்து அறிந்து கொள்வது ஆகும். மாதவியா சுழற்சியின் முடிந்த கடைசி நாளில் செய்ய வேண்டும்.



1. கண்ணாடி முன்பு நின்று இரண்டு மார்பகங்களும் ஏதேனும் மாற்றம் ஏற்பட்டுள்ளதா என்று பார்க்கவும், மார்பகங்களின் தோற்றத்திலோ, அளவிலோ அல்லது தோலிலோ ஏதேனும் மாற்றம் மற்றும் சுருக்கம் ஏற்பட்டுள்ளதா என்று பார்க்கவும். அதே மாதிரி ஆரஞ்சு பழத்தோலை போல் இருக்கிறதா என்று பார்க்க வேண்டும்.

2. இரண்டு கைகளையும் உயர்த்தி தலை மீது சேர்த்து வைத்து கொண்டு கண்ணாடியின் முன் இரு மார்பகங்களில் ஏதேனும் தன்மையில் மாற்றம் இருக்கிறதா என்று கவனியுங்கள்.



3. பிறகு மூன்றாவது நிலையில் இரு கையையும் இடுப்பில் வைத்து உங்கள் தோள்பட்டையையும் கைகளையும் சற்று

முன்புறம் வலைத்து கண்ணாடியை பார்க்க வேண்டும். மார்பக அளவிலோ அல்லது அதன் தன்மையிலோ ஏதேனும் மாற்றமோ கட்டியோ இருக்கிறதா என்று பரிசோதிக்க வேண்டும்.

4. முதலில் இடது கையை மேல்புறமாக உயர்த்த வேண்டும். பிறகு உங்களை கைவிரல்களை பயன் படுத்தி (விரல்களால் அல்ல) கைகளின் மிருதுவான பகுதியை கொண்டு வட்டமாக மார்பகத்தை பரிசோதிக்க வேண்டும். மார்பகத்தின் வெளிபகுதியில் இருந்து மார்பகத்தின் முலைகாம்பு வரை பரிசோதிக்க வேண்டும். இடது மார்பகத்தை பரிசோதிக்க வேண்டும். முதலில் மார்பகத்தின் வெளிபுறத்தில் இருந்து, உங்களுடைய முக்கியமாக மார்பகத்தின் எல்லா பகுதியையும் முழுமையாக பரிசோதிக்க வேண்டும். கவனத்தின் வைத்துக் கொள்ளுங்கள் மார்பகத்தையும், உயர்த்திய கையின் அடிபுறத்திலிருந்து அக்குள் வரை பரிசோதித்திற்க வேண்டும். இடது கையை உயர்த்தி செய்தது போல பிறகு வலது கையை உயர்த்தி வலது புற மார்பகத்தில் சுய மார்பக பரிசோதனை செய்ய வேண்டும். நீங்கள் மார்பக சுய பரிசோதனையின் போது ஏதேனும் கட்டியோ, மார்பகத்தின் தன்மையிலோ மாற்றம் ஏற்பட்டிருந்தால் மருத்துவரை அணுகவும்.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5. உங்கள் முதுகின் பின் ஒரு மென்மையான தலையனை சுருட்டி வைத்துக்கொண்டு மல்லாந்து படுத்துக்கொள்ளுங்கள் உங்கள் வலது கையை தலைக்கு பின்பு வைத்துக் கொள்ளவும். உங்கள் உள்ளங்கையிலான் தேய்த்து, மார்பக ம் அக்குள் என்று ஒவ்வொரு பாகமாக உணர்ந்து பார்க்கவும், மார்பகங்களை சுற்றி வட்டவட்டமாக தேய்க்க வேண்டும். உங்கள் விரல்களும் உங்கள் மார்பகங்களை தொட்டவாறே இருக்க வேண்டும். சுய பரிசோதனை செய்து கொள்ளும் பொழுது ஆரம்பத்தில் இதமாக அழுத்தி, பிறகு சற்று பலம் கொடுத்து கடைசியில் மிகவும் அழுத்தமாக செய்ய வேண்டும்.

மார்பக புற்று நோயை தடுக்கும் முறைகள்

1. தொடர்ந்து சுய மார்பக பரிசோதனை செய்ய வேண்டும். ஒவ்வொரு மாதமும் செய்ய வேண்டும்.
2. 30 வயதிற்கு முன்பாக கருத்தரிக்க வேண்டும்.
3. மாதவிடாய் சுழற்சி நின்றபின் மருத்துவரின் ஆலோசனை படி ஹார்மோன் சிகிச்சை எடுக்க வேண்டும்.
4. கருத்தடை மாத்திரைகள் உபயோகிப்பதை குறைக்க வேண்டும். தொடர்ந்து 5 வருடங்கள் உபயோகிக்க கூடாது.
5. குடிபழக்கத்தை நிறுத்த வேண்டும்.
6. உணவில் அதிக கொழுப்பு சத்து சேர்த்து உட்கொள்ளுவதை தடுக்க வேண்டும்.
7. தொடர்ந்து உடற்பயிற்சி செய்து உடல் பருமனை குறைக்க வேண்டும்.
8. புகை பிடித்தலை தவிர்க்க வேண்டும்.
9. கதிர்வீச்சிற்கு உட்படுதலை தவிர்க்க வேண்டும்.

முடிவுரை

மார்பக பரிசோதனையில் உங்கள் மார்பகத்தின் தன்மையிலோ அல்லது மார்பகத்தில் கட்டியோ அல்லது மேற்கண்ட அறிகுறியில் ஏதேனும் தென்பட்டால் அருகில் உள்ள மருத்துவரை அணுகி ஆலோசனை பெறவும்.

உடல் ஆரோக்கியம் ஒவ்வொருவருக்கும் இன்றியமையாத ஒன்றாகும்.

மார்பக புற்று நோய் பற்றிய கையேடு