

**A COMMUNITY BASED STUDY ON “PREVALENCE AND
RISK FACTORS OF BREAST
LUMP AMONG REPRODUCTIVE AGED WOMEN OF
JALPAPUR V.D.C. OF SUNSARI DISTRICT, 2003”**

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Abstract:

A descriptive exploratory study on the prevalence of breast lump and its associated risk factors among reproductive aged group. A household survey was done. All women (15 to 49 years) of Jalpapur were enrolled in the study. Training program was organized to the co-workers to develop skill on physical examination. Pre-testing of the tool was done in Dharan Municipality of Sunsari district. It is near by area from Jalpapur for feasibility and practicability of the study. Data collection procedure was started after validation and pre-testing of the tools. Prevalence was drawn on the basis of physical examination of breast in sampled population. Risk factors were calculated on the basis of responses given by the participants and obesity was calculated by the body mass index (BMI) calculation technique provided by World Health Organization. Ethical consideration was kept in mind such, as formal consent was obtained from authorized person of concerned VDC. Informed consent was taken from the participants, prior to data collection. Participants who refused to participate in the study were excluded from it.

Using descriptive and inferential statistics were analyzed and interpret of collected data. Finally compiling of report and dissemination of finding was done.

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CHAPTER- I

Introduction:

Breast lump is localized swelling, protuberance or mass in the breast. It is one of the prime indicators of breast disorders. A lump might be a cyst, a benign tumor or a malignancy. The majority of these lumps will be nothing to worry about; it is only a small proportion of breast lumps that are malignant i.e. around 20-30%.¹

But the clinical signs of breast cancer are not easily distinguished from those of benign breast disease. A lump is usually a size of a pea before a skilled examiner can detect it. Any abnormal findings should be investigated further. Breast cancer is leading cancer among women worldwide, with more than 540, 000 new cases occurring each year. Over 40% of these cases are in the developing countries.² The incidence of breast cancer is rising all over the world.³ In south Asia there is significant increase in incidence of breast cancer among the women of reproductive age group.⁴

Since breast cancer prevention is still theoretical, efforts have focused on early detection. Breast cancer is more easily treated and often curable if it is found early. Self- breast examination and screening mammography combined with clinical breast examination is the most effective detection method. It is estimated that 50% of more or all breast cancer clients could obtain a prolongation of survival by increasing public awareness, early detection and efficient treatment. This can be achieved by screening.⁴

Screening is search for recognized disease by means of rapidly applied examinations and tests in apparently healthy women.⁶ Breast cancer has a long natural history, where it usually develops an early stage of lump formation to progression into malignant condition (2 ½ to 17 yrs.).⁷ Such a long natural history makes carcinoma breast and ideal disease for applying screening programme. Mainly two types of breast screening tests are available viz. Physical examination of the breast for detection of lump and mammography. Physical examination can either be done by the female herself (Breast self examination or BSE) or by the trained health professionals. Mammography is more accurate method for screening breast cancer, but it is costly and less available particularly in the

developing countries. It may not be feasible to use everywhere in Nepal, hence physical examination is the best way for screening for breast cancer.

Study Site and its Justification:

The setting of study was Jalpapur VDC of Sunsari District, Eastern Nepal. It is a Terai area having approximately 6000 populations. The village is situated at a distance of 50 km south and west from Dharan and 10 km south from Ineruwa municipality.

This is a needy community because it is a remote with low literacy, low socio-economic and lack of awareness about breast self-examination. Majority of the population in this village are Muslims. Most of them are using Hormonal contraceptive devices like Depo-provera and oral pills, because of permanent family planning is not acceptable for them. This is considered as backward or/and vulnerable area of Sunsari district. That's why the investigators select this site.

Statement of the Problem:

A community based study on "Prevalence and risk factors of breast lump among reproductive aged women."

Objectives:

General:

To identify the burden of breast lump in selected age group and associated risk factors of breast cancer in breast lump cases.

Specific:

- To estimate 15 to 45 years aged women population in Jalpapur V.D.C.
- To highlight self-reported cases of breast lump.
- To conduct physical examination of breast by the investigators.
- To ascertain the prevalence of breast lump among sampled population.
- To identify the distribution of associated risk factors in the lump cases.

Operational Definitions:

1. Breast Lump:

Breast lump include any extra growth or mass in the breast, ascertained by the investigator and co-workers during physical examination of breast.

2. Breast Self-Examination:

When the Participants will be conducting examination on their own, considered as breast self-examination in this study.

3. Physical Examination of Breast:

The term physical examination of breast is refers to conduct examination of breast by the investigator and co-workers.

Study Variables:

Age, Education, Religion, Marital status, Socio-economic status, Gravidity, Menstrual status, Hormonal therapy, Obesity, etc.

Research Hypothesis:

1. There is a relationship between age and prevalence of breast lump.
2. There is relationship between risk factors of breast cancer and breast lump.

Chapter- II

Literature Review:

A disorder in which palpable lump(s) are felt in the tissue of one or both breasts. Such breast lumps may be either benign or malignant. There are many causes for lumps in the breast. These range from normal physiologic changes to abnormal breast diseases. Some lumps are age dependent. It is also important to remember that hormonal changes just prior to menstruation may cause a lumpy or glandular feeling to the breast tissue. The discovery of a lump in the breast usually brings the thought of cancer immediately to mind. However, it is important to remember that 80 to 85 percent of breast lumps are benign, especially in women less than age 40 to 50. Benign causes include fibro- adenoma, fat necrosis and breast abscess. The incidence is estimated at over 60% of all women. It is common in women aged 30 to 50 and is rare in postmenopausal women. The incidence is lower in women taking birth control pills. Risk factors may include heredity and diet (Excessive dietary fat, caffeine intake). Recent statistics say that 1 in 8 or 9 American women will develop breast cancer at some point in her life. Risk increases exponentially after age 30. The average age of women diagnosed with breast cancer is 60. Other risk factors include: family history of breast cancer, particularly in mother or siblings, menstrual history consistent with early menarche (i. e. before 12 years) or late menopause (after age 50), no pregnancies or first pregnancy after the age 40; and radiation exposure. Although the majority of breast cancers occur in women who are in their 30s or 40s. This is rare; in these cases, the cancers may have a strong genetic link.⁷

Breast health surveys (1996) suggested a lump in the breast was the most well-known breast cancer symptom. More than 85% of women surveyed were able to nominate a lump as being possibly related to breast cancer. Cancer is diagnosed in over a quarter of a million people in the U.K. each year, of which there are over 35,000 new cases of female breast cancer. It is the commonest malignancy to affect women, equating to around 1-2 cases per 2000 population. Around 3-5% of cases are diagnosed before 40 years of age, around 2% before 35 years .⁶

A retrospective cohort study of participants in the breast cancer-screening program in Japan estimated the risks of cancers the breast and other sites associated with benign breast disease (BBD). Women with BBD were at significantly increased risk of breast cancer. The magnitude of breast cancer risk varied according to histo-pathological type. We compared this result with other data reported previously from western countries and Japan. In this study to investigate the risk of breast cancer development in women with BBD. 387 screen-detected BBD women and 1,489 normal women, taken from participants in the breast cancer screening during 1978-1986, were followed through 1991. While 2,811 person- years in the BBD group and 11,018 person- years in the normal group were accumulated, 5 women in the BBD group and 6 women in the normal group developed breast cancer. Using the Mantel- Haenszed method, relative risks (RR) were estimated for all women with BBD and women in some BBD types. Significantly elevated risk of breast cancer was observed in all women with BBD (RR= 3.26, 95% confidence interval (CI) 1.08- 9.83).¹⁹

The study reported that there is similarities of background characteristics between proliferative BBD (including AH) and breast cancer.²⁰

Breast cancer is the second leading cause of death from cancer for women in the United States (Forte, 1995) 10 Its incidence has been steadily rising at an annual rate of 1 percent during the past 50 years in United States (Harvey et al, 1984).⁸ Breast cancer is the fifth most common cancer in India. Exact figures regarding its incidence and mortality are not available. According to the population based tumor registry cell of the I.C.M.R. (Indian Council of Medical Research), breast cancer constitutes about 12 percent of all cancers detected in Delhi and about 24

percent of all cancer in women.⁹ An increase in the age-adjusted incidence rate of breast cancer has also been reported in women of Bombay (India) from 17.9 to 24.9 per 1,00,000 population between 1965 and 1985. The commonest age group affected by breast cancer is 40 to 45 years (Yeole, et al; 1990).¹⁰

Breast cancer is often associated with a positive family history. Unmarried women tend to have more breast tumors than married ones. Early menarche and late menopause are established risk factors for breast cancer. Estrogens, as well as progesterone are also important factors in increasing its risk. Evidence of prior breast biopsy for benign breast disease is associated with an increased risk of breast cancer. High fatty diet and obesity are also linked with its risk. Breast cancer is common in higher socio-economic groups, other factors like radiation and oral contraceptive are considered as risk factors of breast cancer (Park, 2001).⁶ In contrast of above-mentioned risk factors some studies have indicated that lower Socio-Economic Status (SES) is associated with higher rates of breast cancer and its mortality. Studies have found that people with lower SES are more likely to have cancer at the advanced stage.¹¹

Breast cancer has a long natural history. Carcinoma of the breast is not a pathologic entity that develops overnight. It starts with a single cell, which divides or doubles within 30 to 210 days. It takes approximately 16 doubling times for a carcinoma to become 1 cm or greater in size. Assuming that it takes 30 days for each doubling time, it would take minimum of two and half years for a carcinoma to become palpable. If the doubling time were 210 days, it would take up to 17 years before which carcinoma would be palpable (Seltzer, et al; 1992).⁷

Breast Self-Examination (BSE) has been proposed as a means of reducing the breast cancer problem. Although it is reported to be not as effective as mammography or examination by a trained physician, it may be a valuable approach, particularly in countries that cannot afford sophisticated screening services for entire female population at risk. BSE is simple, inexpensive, non-invasive and non-hazardous method.¹² WHO expert committee recommended that breast self-examination is of interest for the early detection of breast cancer,

especially in areas where mammography and regular physical examination of the breasts are not practicable as public health policies.¹³

Devi (1998) utilized “Twelve Stroke” clock method in her study on breast self-examination. In her method, the breast is felt with the fingers along an imaginary twelve divisions of the clock. It minimizes the possibility of ‘cutting corners’, i.e. It allows little chances of missing any lump of the breast.¹⁴

Screening is defined as the search for unrecognized disease or detection by means of rapidly applied tests, examinations or other procedures in apparently healthy individuals the ‘lead time’ is the advantage gained by screening that is the period between diagnosis by early detection and diagnosis by other means. The usual outcome of disease is considerably improved, when the disease is detected at the earliest possible moment.⁶

The success of breast screening services hinge to a large extent on the attainment and maintenance of high levels of uptake and compliance by the target population (Vaile, et al; 1993).³

The key features of successful community organization projects on breast cancer screening promotional activity were a thorough understanding of the community, active participation by members of the community, use of existing community structures and involvement of all relevant local constituencies.¹⁵ Jatoi (2002) stated that clinical breast examination readily detects cancers larger than 1 cm. Additionally, in U.S. the Breast Cancer Detection and Demonstration Project (BCDDP) studied that 39% of mammography detected cancers smaller than 1 cm were also detectable by clinical breast examination.¹⁶

The best time for breast examination is after few days of menstrual period a suggested by Phipps, et al (1979).¹⁷

Chapter- III

RESEARCH DESIGN AND METHODOLOGY:

Research Method and Type:

It was a quantitative research method and descriptive cross-sectional study exploratory in nature.

Study Site and its Justification:

The setting of study was Jalpapur VDC of Sunsari District, Eastern Nepal. It is a terai area having approximately 6125 populations (Estimated population according to Fiscal year 2060/2061 B.S. OR 2003/2004 A.D.). The village is situated at a distance of 50 km south and west from Dharan and 10 km south from Ineruwa municipality.

This is a needy community because it is a remote with low literacy, low socio-economic and lack of awareness about breast self-examination. Majority of the population in this village are Muslims. Most of them are using Hormonal contraceptive devices like Depo-provera and oral pills, because of permanent family planning is not acceptable for them. This is considered as backward or/and vulnerable area of Sunsari district. That's why the investigators select this site.

Target Population:

Target population of the study was all women 15- 49 years of age, irrespective of their education, occupation, income, religion, marital status, residing at Jalpapur VDC. Population enumeration technique was used.

Sample Population:

Registering all women in the age group of 15 to 49 years, who were physically present at home were enrolled in the study, did a house-to-house survey. If any selected subject refused to participate in the study, she was accordingly excluded from the study. Houses found locked were visited thrice for three consecutive days after that if couldn't be contacted any family members then locked houses were excluded from this study. Pregnant and lactating mothers were also excluded from the study.

Sample Size:

Sample size was 541, which represent 64% of population. Estimated population of 15 to 49 years according to 2060/2061 data is 1374, out of that 262 is estimated pregnancy and near about same numbers are lactating also (Total=524 were pregnant & lactating). Coverage of more than 10% is considered as adequate sample in population based study.

Sampling Frame:

Before started to collect data, investigator and co- workers met local leaders for permission. The investigators and co- workers were done a house-to-house survey. First of all, identify the eligible subjects to be included in the study. Population enumeration was done, so sampling frame was not needed.

Tools and Techniques for Data Collection:

Interview schedule and breast examination checklist was prepared by the investigators and consulted with experts of concerned departments. Risk assessment tool given by cancer line U.K. was adopted to identify the associated risk factors of breast cancer in this study. Training on technique of physical examination of breast was given to the co- workers by the investigators. The data was collected in Jalpapur VDC, during the month of September & October 2003. Prior to the data collection, permission to conduct a study was obtained from the head of BPKIHS, Secretary of village Development Committee (VDC) of Jalpapur. Data collection was done through house-to-house survey.

The investigator and co-workers were interviewed the respondents to obtain the socio- demographic, obstetric data and record it. The respondents were taught about the importance of breast self- examination (BSE), best time of breast examination every month (i.e. 7- 10 days after menstruation). “Twelve stroke” method was utilized for physical examination of breast; findings were recorded in proforma.

Pre-testing the Data Collection Tools:

A pre-testing of the tool was undertaken with the following objectives: -

1. To check the feasibility and practicability of the study.
2. To check the language and adequacy of contents in the tools.

3. To estimate time required administering the tools.

Pre-testing of tools was done in Dharan Municipality of Sunsari district. Breast Cancer Screening Camp was organized on 2060.1.20 BS (3rd May 2003) total 86 women were enrolled. It was conducted to test the feasibility, practicability, language, content and time required for registration, interview and examination of breasts in non-lump and lump cases.

Minor changes were made in language of the tool. Investigator and co-workers felt that simple local spoken Nepali language was better than English. Married women easily agreed for breast examination during the screening camp. One multiple and 5 single Breasts Lump was found among the 86 subjects (Prevalence= 6.9%).

Total time spent on registration of a woman was 5 minutes, for the interview 5 minutes for both lump and non-lump subjects. The time required for breast examination in non-lump cases was 15 minutes and in lump cases was 20 minutes. On an average 25 minutes were required to be spent for interviewing/examining non-lump cases and 30 minutes for lump cases.

Validity and Reliability of the Research:

Content validity of the research maintained by distributed tools to the experts of surgery, community health nursing department of BPKIHS. The investigators were incorporated the suggestions given by the experts in the tools before data collection.

Biases:

Examination findings biases were minimized by giving planned training to the co-workers on techniques of examination. Skill test was done by repeated re-demonstration of procedure by co-workers on lump located dummy, which helped to check the proficiency of skill. Larger Number of Sample was reduced sampling error (Bias).

Limitation of the Study:

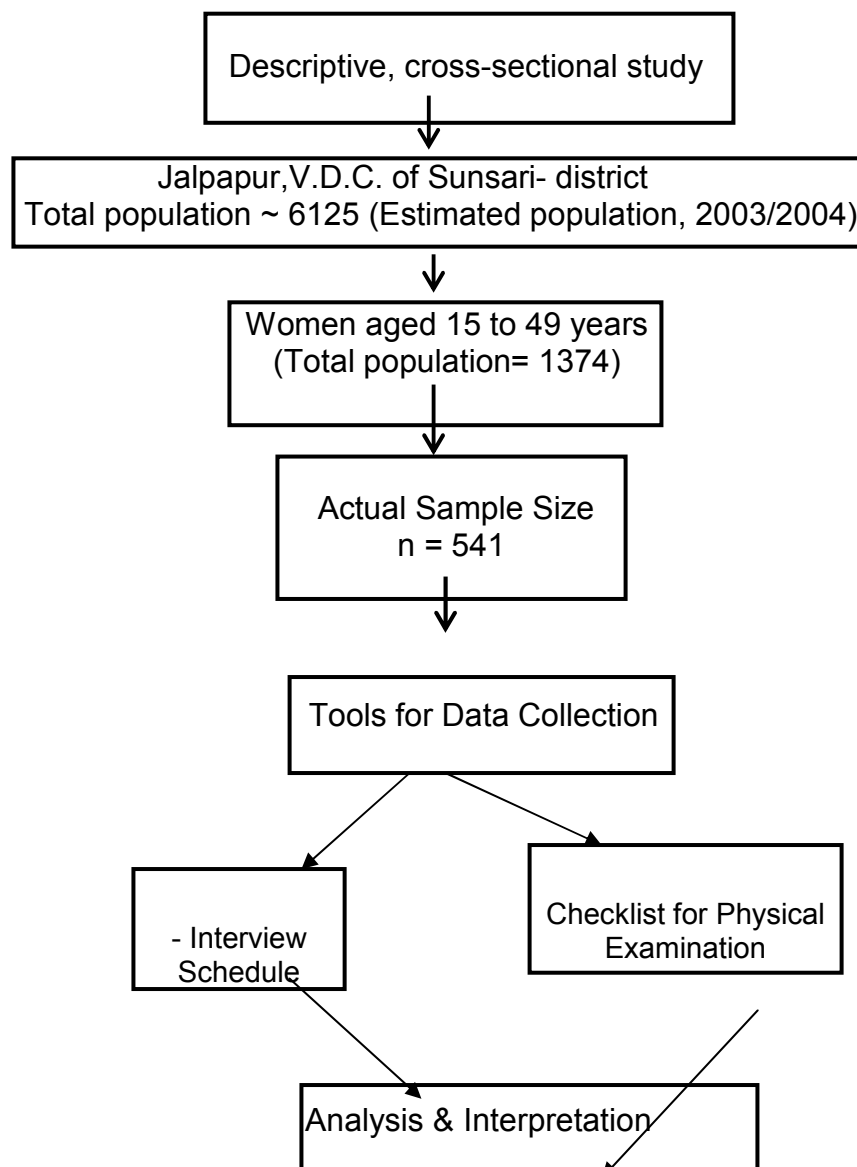
This study was limited to only those women who were in the age group between 15- 49 years and residing at Jalpapur VDC, Sunsari irrespective of their

education, occupation, income, religion, marital status and Patho-physiological conditions.

- This study was limited in Jalpapur VDC Sunsari.

- Numbers of respondents were subjects.

Figure 1: Flow Chart of Methodology for 'Prevalence of Breast Lump' among Women aged 15 to 49 years



CHAPTER: V

DISCUSSION:

Despite advancement and multifold improvement in scientific knowledge, presently there is no known method for primary prevention of breast cancer. Under the present circumstances, therefore early detection and treatment of breast cancer as a secondary preventive measure seems to be the most appropriate approach for reducing mortality due to breast cancer and for improving quality of life in these clients.

Many clinical methods have been considered for an early diagnosis of breast cancer including BSE, regular physical examination of breast and a variety of methods of imaging for early lesions in the breast, particularly mammography. At present, mammography either alone or in conjunction with physical examination is the only early detection method of proven value for screening.

Randomized trials of screening of breast cancer have clearly demonstrated a substantial reduction of the order of 40% in the breast cancer mortality among women aged over 50 years i.e. when regularly screened every two to three years by mammography. No other screening modalities has been demonstrated to be benefit, nor as screening of younger women. The major problem of breast cancer screening at present is the need for greater understanding of the heterogeneous natural history of the disease. The extent to which earlier diagnosis improves, prognosis is poorly understood, but remains crucial for determining the full potential of screening.²¹

BSE is a technique that all women can use to assess their own breasts. Thus it is a useful self-care activity for all adult women. The American Cancer Society recommends BSE. Teaching the skills of BSE can be life saving and is one of the most important activities of nurses. With regular BSE, malignancy may

be discovered at an early stage and treated accordingly. Regular monthly BSE is an essential health maintenance activity.

Breast lumps are common and most women will detect a breast abnormality at some time in their lives, this is irrespective of the promotion of breast self-examination (BSE) by the medical profession. It should be possible to increase a woman's ability to deal better with this anxiety-provoking situation, and to reduce the number of women presenting with locally advanced disease by an appropriate health education.

Breast self-examination and clinical examination of the breast is recommended as complementary method of screening for group of women in the reproductive age. But this does not mean that BSE should be promoted as a screening test for cancer. The natural course of breast cancer is not completely understood. Although stage at diagnosis is related to survival, and mammographic screening trials suggest that early diagnosis (often before a lump is palpable) can lead to effective treatment which prolongs life, earlier treatment of a palpable lump detected by BSE is not guaranteed to improve survival (Mant, 1991).²¹

The present study utilized, both BSE and physical examination of breast, because at present the aim of the examination was to screen the respondents for breast lump, which is considered as early detection of breast cancer.

There are several methods of performing BSE and physical examination of breast, like inspection; palpation with three or four fingers or using finger pads. Palpation by concentric or radial movement or combination of the movements (Twelve O'clock method). However, American Cancer Society has recommended circular pattern in addition to the inspection. Combination of circular and radial methods is likely to have a better screening potential. However, this comment is invalid in view of lack of comparative studies of the methods. More studies are necessary to arrive at a concrete conclusion for selection of the best method for recommendation.

The present study utilized 'Twelve Stroke' method for BSE/physical examination of the breast and this method was found easier by the respondents and less confusing for moving the direction of hand during palpation (Devi, 1997).¹⁴

Between the year 1991 to 1993, Donald carried out a cross-sectional age stratified community random sample survey of more than 8,000 subjects 65 years old and above to determine the prevalence of and risk factors for dementia in Canada. To avoid the expense of full diagnostic work ups, investigators used Modified Mini-Mental State Examination to screen for dementia or cognitive impairment.²² This is similar to the present study as it is descriptive cross-sectional study. It was a community-based study on prevalence of breast lump amongst those women in the age 15 years old women. Systematic random sampling technique was used. To avoid the expense for the full diagnosis through mammography, fine needle aspiration cytology (FNAC) and biopsy tests were avoided and only physical examination was done to screen the target population for the breast lump.

Breast self-examination (BSE) have consistently identified that a set of limitations were negatively related to BSE practice such as lack of confidence in one's examination, fear of an abnormality, forgetting, and lack of time. Therefore, instruction in BSE has been positively associated with frequent and thorough practice (Leuver, 1989).²³

Present study was conducted in an urban slum having low socio-economic group. The study population primarily belonged to lower socio-economic class. Most of the respondents were housewives and most of them were grand-multi and multi-gravida/para.

The study revealed that the one out of every eight women had a lump in breast. Literature shows that one-fourth of all breast lumps are found to be cancer. Majority of the lumps in the present study were single.

The largest portion of glandular breast tissue occurs in the upper lateral quadrants of the breasts. From this quadrant there is an anatomical projection of breast tissue into the axilla. This projection is termed the axillary tail of Spence. The majority of the breast lumps are located in the upper lateral breast quadrant and in the tail of Spence (Malasanos, et al, 1981).²⁴ Studies reveal that lumps were located in the upper outer quadrant of the breasts in 60% cases. Lumps found in the upper outer quadrant are of maximum concern to the doctors.⁴⁴ Present study brings out that half of the lumps were found in upper inner quadrants and very few were found in lower outer quadrants of the both breasts.

Present study found that majority of the lumps were round to oval in shape, while some lumps were round and very few lumps had irregular borders. According to different studies most of the benign lumps are round and oval in shape, whereas palpable irregularity of the breast tissue may vary from diffuse, fine irregularities and poorly defined lump are very common, particularly in thin women. Irregular shape of the breast lumps is having most concern to malignant in nature.

Present study reveals that most of the lumps were soft and very few lumps were hard in nature. As per literature, physical findings suggestive of a malignancy include a hard lump. In the instant study, 40% cases were identified and they need further careful evaluation.

Breast cancer is usually noted as a painless lump and discovered incidentally by the client, by routine physical examination or by mammography.¹³ Pain and tenderness are non-specific findings and herald cancer less than 10 percent of the time. Painful lumps reflect inflammation of the breast tissue. Present study revealed that majority of the lumps were tender and some were painless.

The size of the primary lump, a clinical predictor of outcome, can be determined easily by palpation. Lumps less than 2 cms in size are generally associated with the most favorable outcome.²⁶ Detection of the breast lump

declines as the size is decreased. Present study revealed that majority of the lumps was 2 cms long.

In the present study all most all lumps were movable on palpation. Different studies have brought out that hormonal changes during the menstrual cycle lead to a cystic pattern of change in the breast size along with lumpiness and tenderness, that is maximal just before menses. The breast is smallest 4 to 7 days after of the menstrual cycle. During days 3 to 4 prior to the onset of menses, mammary tensesness, many women experience fullness, heaviness, tenderness and pain, and the breast volume is significantly increased. Present study brings that near about half of the respondents were in less than 7 days after their menstruation cycle and few respondents were had more than 30 days.

On general appearance normal breasts are reasonably symmetrical in size and shape, though not usually absolutely equal. This symmetry remains constant at rest and with movement. The present study reveals that some respondents had alteration in size and shape of the breast.

Present study has revealed that very few respondents had inflammation in their breast, but they did not have breast lump. Very few respondents found external growth on the breasts.

Nipples, though variable in each client, are normally similar in size and shape. A slight inversion of one or both nipples is common and is a significant finding only when of recent origin. Ulceration, rashes, or nipple discharge requires evaluation. Any dimpling or retraction suggestive of a potential malignancy. In the present study very few respondents had dimpling and discharge from the nipples.

Few respondents were found with axillary lymph nodes, but they did not have breast lump.

Present study revealed that samples were not taking tea and coffee regularly, they were not taking coffin and very few were obese. Most of the respondents had menarche in between 12-14 years and mean age was 12.9 ± 1.02 years and mean age of first childbirth was 17.3 ± 2.1 years. Some respondents were using injectable contraceptive devices that are Depo- provera, which is just reverse of risk factors found in developed countries.

CHAPTER: VI

CONCLUSION, IMPLICATION AND RECOMMENDATIONS

Conclusion .

The data collected during the study from Jalapur VDC of Sunsari district, conclusively bring out that women aged between 15 to 49 years, were not free from breast lumps. After a detailed analysis, the following emerge: –

- (a) Out of 541 respondents, 21 (3.9%) had breast lumps.
- (b) Of these 21 respondents, 80.9% had single lumps
- (c) Out of a total of 25 lumps, 44% cases of lumps were in upper inner quadrants of the breasts.
- (d) In 96% cases the lumps were round to oval in shape.
- (e) In 60% cases, of lumps were soft in consistency.
- (f) In 68% cases the lumps were tender.
- (g) Total 58.3% cases of lumps were of the size of 2 cms.
- (h) There is not significant relation of age with breast lump.

Implication Of The Study.

This study was helpful for screening of breast lump among a sampled population. It facilitated to encourage the respondents to carry out breast self-examination. They were explained the importance of conducting the breast self-examination regularly. Hence this study was beneficial for the respondents as it well help them further to detect the lump by themselves.

Recommendations.

Having carried out the study, some significant aspects have emerged and based on them suggestions/recommendations is submitted for future referral and action as deemed fit. They are: -

- (a) There is a need for launching an intensive screening programme for evaluation of breast lump.
- (b) There is a need for an information, education and communication campaign with an aim to emphasize early detection methods.
- (c) There is need to undertake a study on a larger scale for generalization of the result.

- (d) There is also a need for follow up action for the detection of the breast lump, as found in present study.

REFERENCES:

1. Kathy L, Spence WR. What happens when you have a breast lump. Health EDCO, a division of WRS group, Inc. 1996; 2.
2. Baron RH, Walsh A. I facts everyone should know about breast cancer. American J Nurse. 1995; 95: 29-33.
3. Vaile MSB, Calnan M, Rutter DR, Wall B. Breast cancer screening services in three areas: uptake and satisfaction. Journal of Public Health Medicine. 1993; 15(1): 37-45.
4. Tilakaratna AD, Rodrigo T, Silva MVC. Extensive intraduct component in invasive duct carcinoma of the breast : Prevalence and significance in a South Asian Setting. Indian J. of Cancer. Mar 2000; 37: 1-3.
5. Freeman RB, Heinrich J. Community health nursing practice. 2nd edn. WB Saunders Company, Philadelphia. 1981; 336.
6. Park K. Park's textbook of preventive and social medicine. 16th edn. M/s Banarsidas Bhanot, Jabalpur. 2001; 289-90.
7. Smeltzer CS, Bare GB, Brunner and Suddharth's textbook of Medical-Surgical Nursing. 8th edn. New York, Suzanne Philadelphia, Lippincott. 1995, 1303-5.
8. Harvey AMG, Johns RY, Kursick VA, Owens AH, Ross RS. The principles and practice of medicine. 21st edn. Appleton-century Crafts/ Norwalk, Connecticut, USA. 1984; 655-6.
9. Anand A, Nagpal R. Breast cancer. Social Welfare. 1992; XXXVIII (9-10); 43-4.
10. Yeole B, Jayant K, Jussawalla DJ. Trends in breast cancer incidence in greater Bombay: An epidemiological assessment. World Health Organization. 1990; 68(2): 245-9.
11. Wilcox SL, Mosher DW. Factors associated with obtaining health screening among women of reproductive age. Public Health Reports. 1993; 108(1): 76-85.
12. Haas KB. The effect of managed care on breast cancer detection, treatment and research. Nursing Outlook. 1997; 45(4): 167-72.

13. Memoranda Memorandums. Self-examination in the early detection of breast cancer: memorandum from a WHO meeting. Bulletin of World Health Organization. 1984; 62(6): 861-9.
14. Devi R. A study of develops a manual on breast self-examination. Thesis of M.Sc. Nursing, College of Nursing, PGIMER, Chandigarh (Panjab University). 1997, 1-3.
15. Tylor Mv, Taplin HS, Urban N, Mohloh J, Majer H.K. Medical community involvement in a breast cancer screening promotional project. Public Health Reports. 1994; 109(4) : 491-8.
16. Jatoi I. Principles of breast cancer screening, Manual of breast diseases. Lippincott Williams and Wilkins, A Walters kluwer Company, Phidadelphia. 2002; 177-96.
17. Phipps WJ, Long, Wood. Medical – Surgical Nursing, concept and clinical practice. The CV Mosby company. 1979; 9(4) : 16-24.
18. URL:<http://www.nbcc.org.au/pages/info/resource/nbccpubs/brhlthsu/ch1.htm>; updated on 24 July 1998. Searched date 8th Aug 2003.
19. Minami Y, Ohuchi N, Teada Y, et. al. Risk of Breast Cancer in Japanese Women with Benign Breast Disease. Japanese Journal of Cancer Research; 1999 (90): 600-6
20. Minami Y, Ohuchi N, Teada Y, Fukao A and Hisamichi S. Risk Factors for Benign Breast Disease according to histopathological type: Comparisons of Risk Factors of Breast Cancer. Japanese Journal of Cancer Research, 1998 (89): 116-23
21. Mant D. Breast self-examination. British Medical Bulletin. 1991; 47(2): 455-61.
22. Donald A. Verification Bias: A pit fall in evaluating screening tests. Nursing Research. 1996; 45(6) : 350-1.
23. Lauver D. Instructional information and breast self – examination practice. Research in Nursing and Health. 1989; 12 : 11-19.

24. Malasanos BM, Stoltenberg A. Health Assessment. 2nd edn. The CV Mosby Company. 1981; 287.

25. http://health.yahoo.com/health/disease_and_conditions/disease_Feed_data/breast_lump/9/3/2001; 1-7.

26. Fulton PJ, Rakowski W, Jones CA. Determinants of breast cancer screening among inner-city Hispanic women. Public Health Reports. 1995; 110(4): 476-82.

27. Mahajan BK. Textbook of preventive and Social Medicine. Jaypee brothers, New-Delhi. 1995; 134-5.