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"To Assess The Effectiveness Of Nursing Interventional Package On Breast Self Examination In Terms Of Knowledge And Skill Among Student Nurses Of Selected Nursing Colleges In Bangalore"

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ABSTRACT:

Statement of the problem:

"A Study to Assess the Effectiveness of Nursing Interventional Package on Breast Self- Examination in Terms of Knowledge and Skill among Student Nurses of Selected Nursing College in Bangalore."

Background:

Every woman has her own job or duty in this modern society; they are the basic foundation of a society and its wealth. So it is very important to take care of a women's health. Now-a-days females are facing lots of health issues related to their breast due to lack of knowledge about Breast complications, specially Cancer of breast which is a global health issue and a leading cause of death among women. The incidence of breast abnormalities are high in due to late stage diagnosis of breast diseases as patients usually present at an advanced stage because of inadequate knowledge about it. So that it needs to be encouraging or creating awareness among women for early diagnosis, treatment, and for adopt a healthy life style. The natural history of breast abnormalities can be altered when early diagnosis and treatment was undertaken. Women can discover breast changes themselves through self-exams for detecting any complication related to their

breast at their home i.e. BSE (Breast Self -Examination) which is the best screening method, cost effective, non-invasive, simple procedure.

Objectives:

1. To assess the existing level of knowledge and skill of student nurses on breast self- examination.
2. To determine the effectiveness of nursing interventional package on breast self -examination.
3. To find out the association of pre-test knowledge level of student nurses with selected demographic variables.
4. To find out the association of pre-test skill level of student nurses with selected demographic variables.

Hypothesis:

H1- There will be a significant improvement in knowledge and skill scores of student nurse on breast self-examination.

H2- There will be a significant association between pre -test level of knowledge and skill scores of student nurses with selected demographic variables.

Methods:

A quasi experimental, one group pre-test post-test design was used for this study. Using simple random sampling technique, 100 student nurses were selected and the data was collected by administering structured knowledge questionnaire and an observational checklist on breast self-examination. After collecting the data, nursing interventional package (NIP) was administered to the samples and on 8th day post-test was conducted using the same questionnaire and observational checklist. The collected data was analyzed using descriptive and inferential statistics.

Results:

The knowledge of the student nurses regarding breast self- examination showed that in pre-test scores, 70 (70%) of the sample had inadequate knowledge, 30(30%) were having moderate knowledge and no student nurses had adequate knowledge regarding Breast self-examination where as in post test scores, 77(77%) were having adequate knowledge, 23(23%) were having moderate knowledge and no student nurses having inadequate knowledge regarding Breast self-examination. The level of pre-test skill scores regarding breast self-examination showed that in pretest scores, 80(80%) were having inadequate skill, 20(20%) were having moderate skill and no student nurses having adequate skill regarding Breast self-examination. Where as in post-test skill scores regarding breast self-examination was showed that, 77(77%) were having adequate skill, 23(23%) were having moderate skill and no student nurses having inadequate skill regarding Breast self-examination. The researcher felt that the mean post-test knowledge scores (25.93±2.71) was significantly higher than the mean pre –test scores (9.20±4.6), t (0.05, 99df) =

1.96. The mean post-test skill scores (11.40 ±1.17) was also significantly higher than the mean pre-test scores (4.20±2.15), t (0.05, 99df) = 1.96. There was a positive and significant correlation between level of knowledge and skill score of student nurses on breast self-examination. The study also found that the post-test knowledge and skill scores was found to be significant for age at menarche and number of girl siblings, place of living, type of family and family history of breast abnormalities and it is not found to be statistically significant at 0.05levels for age, marital status, frequency of exercise for Religion, and received information about breast self-examination.

Interpretation and Conclusion:

The findings of the study concluded that the nursing interventional package on breast self- examination is effective in improving the knowledge and skill of the student nurses regardless of their any personal characteristics. All the respondents had a gain in knowledge and skill compared to pre-test knowledge scores. Educating the student nurses, will help them to become more aware about their own breast health and allow them to use BSE as an important workable tool for early detection.

Keywords:

Knowledge; skill; effectiveness; nursing interventional package; breast self-examination; student nurses

LIST OF ABBREVIATIONS USED

df : Degree of freedom

BSE: Breast Self -Examination

WHO: World Health Organization

NIP : Nursing Interventional Package

SD : Standard Deviation

F : Frequency

H : Hypothesis

r : Reliability

Cf : Cumulative Frequency

Cf% : Cumulative Frequency Percentage

% : Percentage

X2 : Chi Square

1. INTRODUCTION

''The only person who can save you is you; that was going to be the thing that informed the rest of our life.''

- SHERYL CROW

There is a popular saying ''Health is Wealth''. When health is absent wisdom cannot reveal itself, art cannot manifest, strength cannot fight, wealth becomes useless and intelligence cannot be applied. Health is not mainly the issues of doctors, social services and hospital. It is an issue of social justice.

Women are special for many reasons. They are the most sensitive, caring and maternal people in the whole world. Women are special because they love to accomplish things and love to work together to get what they want, they have come so far in this world and that is what makes them so special.

We are celebrating International Women's Day each year to inspiring the women to walk ahead in life. Whereas women had made progress in most of the field still she tends to mysteriously neglect her own health.

Every woman has her own job or duty in this modern society; they are the basic foundation of a society and its wealth. So it is very important to take care of a women's health. The women's have some specialized organs which makes them more beautiful and attractive, specially their Breast.

The Female breasts are located on the anterior chest wall; it is made up of lobules, which contains fatty tissue and connective tissue surroundings. Breast is the sign of feminity, beauty, sexuality and motherhood and their primary function is to produce milk for nutrition of the infant and baby.[1] So any diseases most commonly cancer of breast is a life threatening disease as it effects the organ, closely related with self-image, reproductive and nurturing capacity. Now-a-days females are facing lots of health issues related to their breast due to lack of knowledge about Breast complications, specially Cancer of breast which is a global health issue and a leading cause of death among women[2].The common breast problems are, breast lumps, breast pain or tenderness, nipple discharge or inversion, and changes in the skin of the breast in women of all ages, from adolescents to older women showing now days.

Each year October month is considered as the Breast Cancer Awareness Month, which is worldwide annual campaign involving thousands of organizations to highlight the consequence of breast awareness, education and research.

Breast cancer, that affects the breasts or mammary glands. It is the second most popular cancer after lung cancer and is the fifth most common cause of cancer deaths worldwide. It is a disease which affects many dimensions of health as it gives physical, emotional, psychological as well as economical set back to the women affected.

Incidence of breast abnormalities in India is estimated to be 20.1 per lakh population; it is increasing in the developing world due to increase in life expectancy, urbanization and adoption of western lifestyles[3]. Although some risk reduction might be achieved with prevention, these strategies cannot eliminate the majority of breast abnormalities that develop in low- and middle-income countries where breast cancer is diagnosed in very late stages [4]

As per the National Cancer Registry Programme Report by the year of 2020, 1 in 29 Indian females will develop breast cancer during their lifetime.[5]

Breast cancer is ranked the number one cancer among Indian women with a rate as high as 25.8 per 100,000 women and motility of 12.7 per 100,000 women, according to health ministry report 2017.

As per WHO by Sep 29, 2019, Breast cancer is the most common cancer of women in India an accounts for 14% of all cancers in women. It can occur at any age but the incidence rates in India begin to rise in the early thirties and peak at ages 50-64 years[6]. It is the leading cancer among worldwide, with more than 540,000 new cases occurring in every year.

According to the world cancer report 2017 about 5.37 lakh Indian women got Breast cancer in 2012 and was a leading cause of death among women between age group of 20 and 59 years worldwide. Among Kashmiri women breast cancer is the second leading cancer after esophageal cancer, with an incidence rate of 12.6 per 100,000 women.[7]

Breast cancer is the most common carcinoma in the world and the second most prevalent in Indian females. Over 0.7 million new cases of breast carcinoma are detected every year globally, with nearly 0.3 million deaths, affecting 28 per 100,000 females in the age group of 35 to 60 years, and due to lack of knowledge and practice of Breast self-examination (BSE) it can detect 40% only of breast lesions.[8]

Breast cancer is the second most common cancer in women. Around 80,000 cases are estimated to occur annually due to lack of knowledge, in India .[9]

Based on the Alma-Ata declaration, much emphasis is being placed on promotion and preventive healthcare. So that it needs to be encouraging or creating awareness among them for early diagnosis treatment, and for adopt a healthy life style. The natural history

of breast abnormalities can be altered when early diagnosis and treatment was undertaken. Women can discover breast changes themselves through self-exams for detecting any complication related to their breast at their home i.e. BSE (Breast Self- Examination) which is the best screening method, cost effective, non-invasive, simple procedure.[10]

According to the American Cancer Society recommendations, women should be familiar with how their breasts normally feel and report any breast changes promptly to their health care providers. Prevention and early detection are key to reduction of the incidence and severity of many chronic diseases. It was estimated that 1,78,480 new cases of invasive breast cancer were diagnosed in 2007. [11]

Even though the standard for screening for breast abnormalities in developed countries is mammography, but people in middle and low income developing countries they cannot afford mammography screening because of the cost of equipment, personnel and their training and films. Thus in these countries with breast cancer as an rising problem, alternatives to mammography screening must be considered. These alternatives are: i) early diagnosis by giving health education; ii) Good therapy; iii) Combination of above; iv) Screening by clinical breast –examination (CBE) and Breast self -examination(BSE).[12]

Health education should be the basis of all early detection programs. There is good substantiation that in most of the developing countries the combination of professional and public education resulted in reduction of breast abnormalities on presentation, while in the absence of effective treatment, this is appears to have had some impact upon mortality from breast diseases in these countries in the last decade.[13]

At present simple, painless, quick, cost free, and early implant for early detection of breast abnormalities is breast self -examination (BSE)Therefore by creating awareness among young women's (student nurses) will help them for practicing Breast self -examination (BSE) which tend to be diagnosed at an earlier stage of any abnormalities related to their breast. Regular breast self -examination can identify any abnormal changes in breast to establish good prognosis.[14]

NEED FOR THE STUDY:

"Even too much sunshine can be devasting, while only with rain can growth occur. Accept both as part of the growing process in the garden of life."

The women's Breast is an organ that changes continuously with puberty, with the monthly menstrual cycle, and with pregnancy till death[1]. But some changes need for medical attention so it's important to be aware of about the risk factors related to this. Breast Self-Examination (BSE) is only a process whereby all women can examine their breasts regularly to

detect any abnormal changes in order to seek prompt medical attention at their home without paying any cost.

In India, the knowledge and attitude of people those are living in urban and rural areas are different, the female population in rural areas usually have unable to express their signs and symptoms, they are unwilling to approach primary health centre due to heavy work load and lack of education which can contribute to the high mortality rate among women due to breast complications where as for the female population in urban areas due to insufficiency of time are not practicing Breast self -examination (BSE) regularly.[15]

By 2020 the number of breast complication cases will jump to an alarming figure predicted by WHO and one in every eight women would run the risk of developing the disease in her lifetime. [16]

A cross-sectional study was conducted at Karachi, Pakistan for creating awareness regarding breast self-examination among 1000female students,Although 71.4% of the students had few knowledge about Breast Self-Examination, 59.7% of students had and adequate amount of knowledge about Breast Self- Examination,.87.2% of female students had a positive attitude toward BSE, The practice level was inadequate, 33.1% female students were practicing Breast Self- Examination in their life.[17]

A study was conducted to examine the knowledge, attitude and practice of Breast self- examination (BSE) among secondary school female teachers ,It was found that most (95.6%) respondents were aware about Breast Self -Examination, attitude of the teachers to health information on Breast Self- Examination was positive, with a fairly high degree of acceptability of the idea but its practice was low (54.8%).[18]

A landmark analysis of cancer cases in delhi,Mumbai, Chennai ,and Bangalore by ICMR had found that while cervical cancer cases dipped by almost 50%,the incidence of breast cancer doubled. [19]

The incidence of this disease has been consistently increasing and it is estimated by a meta-analysis of case–control studies which was conducted in 2019 that by the year of 2020, 26% breast complications will increase is projected predominantly in developing countries, with arise from 1, 00,000 to 1, 31,000 new cases annually in the Indian population. It is unfortunate that by 2030, the global incidence of breast cancer will be burgeoning to more than 2 million new cases per year; in India, it will reach up to 2 Lakh /year.[20]

A major issue for many countries, even among high-resource countries, will how and when to do breast self -examination, they don't have adequate knowledge about breast self -examination. An institution-based study which was conducted among 247 female secondary school teachers, from that study Out of 3 women only 1 women had ever practiced breast self -examination, whereas out of 7 women 1 women regularly practiced Breast self -examination (BSE).

The cause for not practicing Breast self -examination (BSE) was inadequate knowledge regarding Breast -Self Examination. [21]

The young period is a time of rapid change that provides teaching opportunities for shaping their health behaviors into adulthood. For example, teaching breast self-care may encourage positive behaviors such as performing breast self -examination (BSE) and seeking regular professional breast examinations. [22]

There is high mortality due to late stage diagnosis as patients usually present at an advanced stage because of lack of awareness and nonexistent screening programs. Early detection and prompt management offer the greatest chance of long term survival and breast self -examination seems to be an important viable optional substitute for early detection of cancer. A study was conducted for assessing the knowledge of breast complications and practice of Breast Self- Examination (BSE) among young women in between 14–19 years of age group and It has reported that creating awareness and practice of breast self-examination is an important method for early detection and prevention of breast complications as it is one of the important health issues among women. Many women can discover their breast abnormalities only through breast self-examination (BSE) which is a very simple, cost effective, noninvasive process. Hence women's knowledge and skill regarding breast self- examination (BSE) plays a vital role in the safeguard of their health. Self-education helps to create awareness among women and motivate them to monitor their health status.[23]

The recent emphasis on health education, early diagnosis of breast abnormalities and more public facilities for cancer treatment are expected to bring about the much needed improvement in breast cancer in our country. it is hardly surprising that the majority of breast cancer patients in our country are still treated at locally advanced and metastatic stage. A multidisciplinary approach to breast cancer treatment that is so vital is available only at a few selected regional centers. The only credible cancer registry data on a large proportion of population is available from the population-based cancer registries (PBCR)-both urban and rural
–and the various hospital-based cancer registries which work under the national cancer registries program of the Indian Council of Medical Research (ICMR).[24]

In India, at present, a dedicated breast cancer screening by clinical breast examination or mammography is not available outside research studies. under the various public health initiatives ,such as " Health for All'' and the national Rural Health Mission, emphasis is put on breast awareness and breast self- examination as a first step towards creating the ground work for a nationwide breast cancer screening program.[24] it is felt that breast self -examination and clinical examination are maybe the right tools for screening the huge population of India, but no credible data is available today to support these views on breast awareness and virtues of periodic breast self -examination are being promoted for early detection of breast cancer through print, electronic media, as well as through health personnel in various health care settings.

In view with the above alarming rates of incidence of breast abnormalities among younger age group this study will help to draw some implications regarding Breast self -examination (BSE). The findings of the study will be useful for future generation in dealing and understanding the importance of breast self- examination (BSE). Nursing Interventional Package (NIP) on Breast self- examination (BSE) which will help for early detection, supplying accurate knowledge and increase their level of skill, will helpful for decreasing the mortality rate and creating awareness among student nurses and also for the society.

2. OBJECTIVES

STATEMENT OF THE PROBLEM:

A Study to Assess the Effectiveness of Nursing Interventional Package on Breast- Self Examination in Terms of Knowledge and Skill among Student Nurses of Selected Nursing College in Bangalore.

OBJECTIVES OF THE STUDY:

1. To assess the existing level of knowledge and skill of student nurses on breast self- examination.
2. To determine the effectiveness of nursing interventional package on breast self -examination.
3. To find out the association of pre-test knowledge and skill level of student nurses with selected demographic variables.

OPERATIONAL DEFENITIONS:

EFFECTIVENESS:

In this study, effectiveness refers to the extent to which the planned Nursing intervention,
Demonstration of breast self- examination improves the knowledge and skill of student nurses and produce a desired outcome/results.

NURSING INTERVENTIONAL PACKAGE (NIP):

In this study, Nursing interventional package refers to a systematically organized teaching strategy and deliberate action on breast self- examination, its techniques, steps, time for interval demonstrate breast self -examination with the aid of breast model among first year Bsc. Nursing Students.

BREAST SELF EXAMINATION (BSE):

In this study BSE refers the student nurses can gain knowledge by inspection, palpation, observation on their own breasts to detect breast abnormalities early.

KNOWLEDGE:

In this study knowledge refers to the facts, awareness, information, descriptions, or skills acquired through experience or education of first year nursing students regarding breast self -examination as measured by a knowledge questionnaire.

SKILL:

In this study, skill refers the ability of the first year nursing students to perform breast self -examination by doing the correct technique as measured by the BSE observation checklist.

STUDENT NURSES:

Student nurse are those Female nurses who are studying in first year nursing at selected nursing collages in Bangalore**.**

ASSUMPTIONS:

1. It is assumed that first year Student nurses may not have sufficient knowledge and skill about breast self -examination.
2. It is assumed that Nursing interventional package may helpful to improve knowledge and skill regarding Breast self -examination among student nurses.

HYPOTHESIS:

H1- There will be a significant improvement in knowledge and skill scores of first year nursing students on breast self -examination.

H2- There will be a significant association between pre-test level of knowledge and skill scores of first year nursing students with selected demographic variables.

SAMPLING CRITERIA:

INCLUSION CRITERIA: First year nursing students who are

- Studying in first year
- Female nursing students in selected nursing colleges.
- Available during the data collection period.

EXCLUSION CRITERIA: Student nurses who are

- Absent during the time of data collection.

DELIMITATIONS:

This study is limited to

- Sample size limited to 100 female student nurses
- Study is delimited for 4 weeks.

CONCEPTUAL THEORETICAL FRAMEWORK:

A conceptual framework is a theoretical approach to study the problem that are scientifically based and which emphasize the selection, arrangement and classification of the concept. "A conceptual framework serves as a gate or map to systematically identify a logical precisely defined relationship between variable". (Wood and Haber 1994)

According to Evelyn Adam (1999), a conceptual model is an abstraction, a way of looking at something, an invention of the mind. A conceptual model for a discipline is very broad perspective, a global way of looking at a discipline it is a precursor of a theory. The conceptual model specifies the disciplines focus of enquiry, identifies those phenomena of particular interest to nursing, and provides a broad perspective for nursing research, practice and education.

Conceptual model is asset of highly abstract related constructs that broadly explains phenomenon of interests, express assumptions and reflex a philosophical instance. Their overall purpose is to make scientific findings, meaningful and generalize them. This facilities communication and provides for systemic approach to nursing research, education, administrations and practice.

The conceptual model for the present study is based on kegleles, Rosenstock and Becker M's Health Belief Model. This model addresses the relationship between a person's beliefs and

behavior. It provides a way of understanding and predicting how clients will behave in relation to their health and

how they will comply with health care therapies.

Health belief model consists of three components:

Component 1: Individual's Perception Perceived susceptibility:

It emphasis that the person's beliefs about his or her own susceptibility to disease

In the present study, perceived susceptibility refers to the first year nursing student's perception of the susceptibility to the breast disease such as breast lump / cyst or carcinoma.

❖ The first year nursing students perceives the presence of risk factor in the population under study that may lead to breast abnormalities.

❖ The first year nursing student's perception regarding susceptibility of breast diseases is limited due to lack of knowledge regarding BSE which is measured by structured knowledge questionnaire and observation checklist.

Perceived seriousness:

It emphasizes the individual's perception regarding the seriousness of the disease.

❖ The nurse investigator perceives that since the incidence of breast abnormalities are increasing nowadays and the population under study is not aware of BSE, there is an urgent need to create awareness regarding the importance of the performing BSE.

❖ Student nurses lack adequate awareness about breast abnormalities and the importance of BSE. Hence they don't perceive the seriousness of disease and its impact on their health and family.

Perceived threat:

According to Becker, perceived susceptibility and perceived seriousness combined to determine the total perceived threat of an illness to a specific individual. The researcher perceived the threat, which is due to the increased incidence of breast abnormalities and inadequate knowledge regarding BSE.

The first year nursing students does not perceive breast abnormalities as a threat as their knowledge regarding the disease is limited. However, they do perceive the "cancer" as a dangerous.

Component 2: Modifying Factors

The factors that modify the individual perception of disease include the following: -

1. Demographic variables**:** it include the age,sex,race and ethnicity.

In the present study, demographic variables include age, religion, type of family, place of residence, family history of breast abnormalities and previous knowledge regarding breast self-examination.

2. Socio psychological variables: Social pressure and influence of friends may encourage preventive health behavior even when an individual's motivation is low.

In the present study, the socio psychological variable involves family history of breast abnormalities.

3. Structure variables: Knowledge about the disease and prior contact with it are structured that are presumed to influence preventive behavior.

In the present study, student nurses having inadequate knowledge regarding breast complications and breast self-examination through health profession, mass media, friends and relatives.

Component 3: Likely hood of action

The likelihood of a person's taking preventive health action depends on the perceived benefits of the action minus the perceived barriers to action.

Perceived benefits of action:

Refraining from a particular habit to prevent a disease.

In the present study, perceived benefits of action include by performing BSE to find out any breast abnormalities at early age.

Perceived barriers to action:

Perceived barriers to action include the cost, inconvenience, unpleasantness, and lifestyle changes.

In the present study, the perceived barriers include inadequate knowledge, laziness, shyness, fear of discovering of any abnormalities,lack of time, lack of confidence, and socio- cultural beliefs.

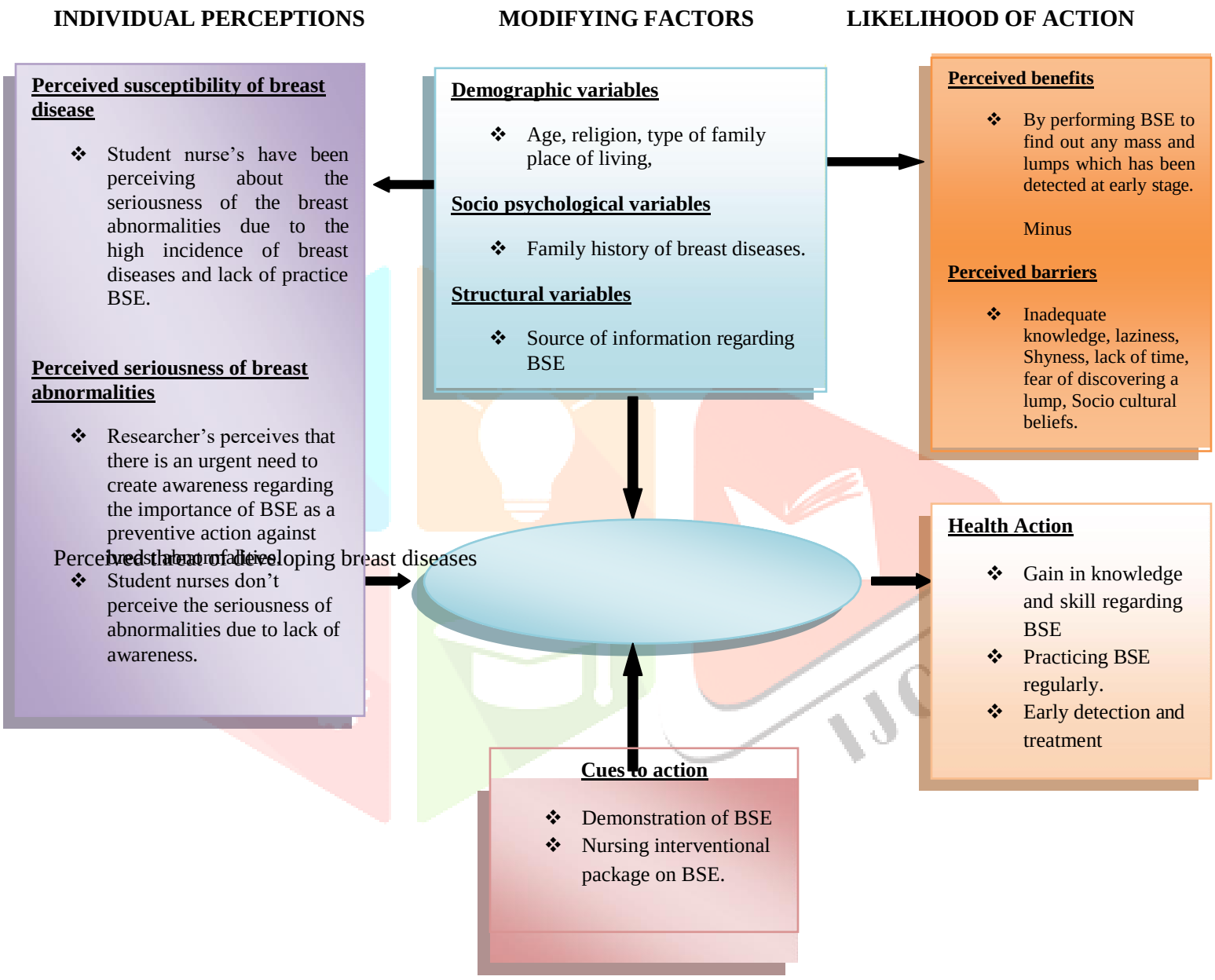
Health action:

When the risk for developing breast diseases is perceived to be serious and the barriers are low, the student nurses

are more likely to start certain health actions like gaining additional knowledge on breast self- examination and practice the correct technique of breast self-examination regularly during their monthly cycle.

Health and illness are inevitable dimensions of life experience. As an individual move along the health illness continuum, she will encounter problems to which she must adapt. Nurses have a unique role in health promotion. The result is an optimum security.

Conceptual framework based on Kegleles ,Rosenstock and Beckers M's Health Belief Model (1950)



3. REVIEW OF LITERATURE

A review of literature refers to the activities involved in identifying and Searching for information on a topic and developing and understanding the State of knowledge on the topic.

- Polit and hungler

This chapter presents review of literature interrelated to present study. Reviews of literature is the formulation and clarification of research problems to determine what is already known in relation to a problem of interest for developing a broad conceptual context and facilitate communication of scientific knowledge for interpreting the result of the study.

A literature review uses the database reports of primary or original scholarships. The primary reports used in the literature may be verbal, but in the vast majority of cases,reports are written documents .

The related literatures for the present study are presented I the following subheadings:

- **Literatures related to incidence of breast abnormalities.**
- **Literatures related to knowledge on breast self- examination.**
- **Literatures related to practice/ Skill on breast self- examination.**
- **Literatures related to effectiveness of nursing interventional package on breast self- examination**

Literatures related to incidence of breast abnormalities.

A data reports from various latest national cancer registries were compared for incidence, mortality rates Breast cancer has ranked number one cancer among Indian females with age adjusted rate as high as 25.8 per 100,000 women and mortality 12.7 per 100,000 women. The age adjusted incidence rate of carcinoma of the breast was found as high as 41 per 100,000 women for Delhi, followed by Chennai (37.9), Bangalore (34.4) and Thiruvananthapuram District (33.7). A statistically significant increase in age adjusted rate over time (1982–2014) in all the PBCRs namely Bangalore (annual percentage change: 2.84%), Barshi (1.87%), Bhopal (2.00%), Chennai (2.44%), Delhi (1.44%) and Mumbai (1.42%) was

observed. Mortality-to-incidence ratio was found to be as high as 66 in rural registries whereas as low as 8 in urban registries. Besides this young age has been found as a major risk factor for breast cancer in Indian women. Breast cancer projection for India during time periods 2020 suggests the number to go as high as 1797900. Better health awareness and availability of breast cancer screening programmes and treatment facilities would cause a favorable and positive clinical picture in the country.[25]

A study was conducted to estimate trends in incidence by age from 2005- 2014, to predict rates through 2020 and to assess the stage at diagnosis of breast cancer in Trivandrum. The materials and methods were used to distribution of stage at diagnosis and incidence rates of breast cancer are described and employed with a join point regression model to estimate average annual percent changes and a Bayesian model to estimate predictive rates. The results of this study were showing that breast cancer accounts for 31% (2681/8737) of all female cancers in Trivandrum. Thirty-five percent (944/2681) are <50 years of age and only 9% present with stage I disease. Rates increased from 50 years. And also predicted 174 in 50-59 years, 231 in > 60 years for 2019- 2020. This study suggests that reasons for the increased incidence and late stage diagnosis need to be studied.[26]

Another study was conducted by an international team of experts convened to discuss the trends, environmental exposures, and clinical implications which are associated with breast cancer in India and outlined recommendations for its management. The symposium concluded with a semi-structured Think Tank designed to elicit short-term and long-term goals that could address the challenges of breast cancer and it was found, the consensus that the prevalence of late-stage breast cancer and the high breast cancer mortality rates are associated with the practice of detection, which is primarily through clinical and breast self-examination. The Think Tank session yielded long-term and short-term goals to further BC reduction and included more regional etiological studies on environmental exposures using existing India- based cohorts and case-control studies, standardization for molecular sub typing of breast cancer cases, and improving the public's awareness of breast health.[27]

A retrospective study was carried out to do the triple assessment, including breast examination, mammography and biopsy (FNAC, core needle, or excision), for all patients were performed estimate the incidence of breast cancer in Yemeni female patients

presenting with a breast mass which was carried out with 595 female patients with palpable breast lumps, attending to Alkuwait university hospital, Sana'a, Yemen. The incidences of benign and malignant lesions was calculated. And the results was found that 160 patients had malignancies; 213 were fibro adenomas; 12 were fibrocystic change; 143 were inflammatory lesions (including mastitis and ductectasia); 62 were simple cysts, while 5 were phyllodes tumors. The mean age of patients with malignant lumps was 44.3 years. Among Yemeni female patients with palpable breast lumps, the rate of breast cancer is high, with occurrence at an earlier age than in Western countries. This study is suggesting to improving breast cancer awareness programs and increasing breast screening centers in different areas are needed to establish for early diagnosis and offer early and optimal treatment.[28]

- **Literatures related to knowledge on breast self -examination**

A community based cross sectional study was conducted. The study was carried out among women in an urban area with objective to assess knowledge of women in age group 20-60 years regarding breast cancer and breast self-examination. Total 100 subjects were selected by multistage sampling technique. Structured questionnaire were used to test their knowledge regarding BSE. Out of 100 women, only 52% knew what breast self- examination. This study concluded that there is a need for developing health education programs about symptoms and Breast self-examination should be encouraged to detect the early signs of breast abnormalities. Further research regarding knowledge of women towards breast self -examination is recommended by this study.[29]

A cross-sectional study was conducted among basic sciences' college students at Bangalore, India,Total 1030 students ranged between 18 and 23 years were included in this study. Most of the participants were aware about breast abnormalities, but half of them thought breast cancer is common in elders age .58% had some knowledge about the symptoms and 59% had least knowledge about risk factors and only 185 (18%) women had knowledge about Breast self -examination and only 107 women participants were practicing Breast self -examination in their life. The study suggest further studies can be conducted for younger generation.[30]

A descriptive study was conducted among college going girls in Delhi, India, to review their knowledge about breast self -examination . Total 70college going girls were taken in

this study. The study was found that majority of students (88.6%) have some information and maximum students were totally unknown about Breast Self -Examination. This study suggesting that, there is a need for creating awareness about Breast self-examination which can help to early detection of breast abnormalities among women. [31]

A descriptive study was conducted in Mahatma Gandhi Institute of Medical Sciences, Maharashtra, India, to appraise the current status of knowledge associated to Breast self-examination in the female rural population attending a teaching hospital. 360 rural women's and their female relatives were included in this study. The study is showing that only 5 (1.38%) females had some knowledge because of their family history of Breast abnormalities, and 81% of women had not any knowledge about Breast self -examination.[32]

Another descriptive study was conducted to assessing the knowledge on breast self-examination among women in selected tertiary hospital, Kelambakkam, Kancheepuram District, Tamil Nadu, India. The sample of the study was chosen by purposive sampling technique, which includes 256 women's who are in hospital. The data collection was validated and reliability was determined and pilot study was conducted, following which the data collection was carried out. Data procured was interpreted by descriptive and inferential statistics. Analysis of data was executed in terms of frequency percentage distribution, mean and standard deviation, chi-square test for the assessment of knowledge on breast self-examination among women. The study finding was revealed that 17.58% had inadequate knowledge, 56.64% had moderate knowledge and only 25.78% had adequate knowledge.[33]

A community based study was carried out in a rural area of Trichy, Tamil Nadu, India to evaluate the knowledge about breast self-examination (BSE) among 200womens. The results showing that, the majority of the women 178 (89%) were conscious about breast abnormalities, but only 26% of the women were aware of Breast self -examination and 18% of the females had ever checked their breast or 5% were practiced it regularly. Researcher concluded very fewer females are having adequate knowledge about BSE.[34]

A cross-sectional survey conducted to assessing the knowledge on breast self- examination (BSE) among women in Outpatient department, Southern railway hospital, India. The study sample was 60. The study Objective was to assessing the existing level of

knowledge on breast self-examination and to identify the factors associated with the knowledge. Data were collected by using Pre tested self-administered questionnaire .Descriptive statistics and inferential statistics were used to describe the variables and to find factors associated with it. The Results of this study was showing that almost 70% of women had insufficient knowledge on breast self-examination which in turn reflects that most of women do not engage in regular practice of BSE. Therefore Health education for women from the late adolescent age should include the need, and techniques of breast self- examination with demonstration.[35]

A Non-experimental, descriptive study was conducted to assess the knowledge score of Medical students regarding Breast Self-Examination in IGIMS, Patna, Bihar. The study sample consisted of total 100 Medical Student of 17-28 years of age. A Self- Structured Questionnaire was used to collect data for the study and analyzed by using descriptive and inferential statistics. This study result was concluded that majority of Medical students had moderately adequate knowledge regarding Breast self-Examination. Therefore the Present study is recommending the future study should be replicated on a large sample size to generalize the findings.[36]

A descriptive study was conducted in a selected hospital of Haryana to assess the knowledge about Breast Cancer and Breast Self -Examination among women of 20-50 years of age, the sample size was 100. Purposive sampling technique was used. Knowledge of study samples were assessed through self-administered questionnaire while Likerts scale was used to assess the attitude of sample. The research findings depict that the maximum women 48 % had poor, 46 % had average and 6 % had minimum knowledge regarding Breast cancer and breast self-examination .The study showing that maximum women had inadequate knowledge regarding Breast cancer and Breast self- examination so the nurses are in key position to educate the women to bring down the rate of breast abnormalities among women.[37]

Another cross sectional descriptive study was done among ethnic Kashmiri women. A sample 250 women in the age group of 20 to 60 years was selected from SMHS Hospital. The objectives of the study were to assess the knowledge about breast self- examination among ethnic Kashmiri females. A predesigned semi-structured study instrument was used to collect the data through interview method. The results are showing that only 26% of the participants had ever heard of breast cancer and among them for 50.8% the source of

information was media. Regarding knowledge of breast self-examination 92.4 % had never heard of it. The study points to the insufficient knowledge of Kashmiri females about breast cancer and its simplest screening method of Breast self-examination.[38]

A cross-sectional study was conducted by administering an online survey designed to assess the knowledge regarding Breast Self-examination amongst Indian women, aged 30 years and above. A validated questionnaire, consisting 35 questions was widely circulated amongst 1000 females throughout India and responses were collected for a duration of 3 weeks, from 2nd, September 2020 to 23rd,September 2020. The knowledge domain score was 22.0 out of a maximum of 30 respectively. Therefore the study suggesting there is need to educate women about importance of breast self-examination.[39]

A descriptive study was conducted to assess the knowledge regarding breast self- examination among the Nursing students.60 nursing students were selected purposively. Self administered questionnaire was used to collect information. The collected data were exported into SPSS for analysis. The study was showing that out of 60 nursing students majority of nursing students 48.3 % (29) had good knowledge regarding breast self-examination and among them 41.7 % (25) had average knowledge and only 10 % (6) had below average knowledge regarding breast self-examination. This study concluded that the knowledge of breast self- examination was low even through majority of them have good attitude. The ministry of health is recommended to promote awareness about breast self-examination[40]

A descriptive approach study was conducted to assess the knowledge regarding breast self-examination among 100 girls in selected colleges of the city for the study. Semi-structured knowledge questionnaire and rating scale were used to collect the data and the study results is showing that majority of samples, i.e., 54% of them were having average level of knowledge score, 35% of them had good level of knowledge, 9% had poor level of knowledge score, and only 2% had very good and none of the sample, i.e., 0% were in excellent knowledge score. The study concluded that after detailed analysis, very less girls were having sufficient knowledge about BSE. So for that this study is recommending to do further studies to providing excellent knowledge to the girls about BSE which can help them to early detection of breast abnormalities.[41]

Another descriptive cross sectional study was conducted in Arab American University, Jenin, to find out the level of knowledge, towards Breast Self- Examination. The study was included 97 female nursing students. From them only 15.5% of the respondents had good overall knowledge towards Breast Self -Examination. Therefore need to create awareness and to educate women about importance of breast self-examination.[42]

A descriptive-analytical study was conducted towards Breast self- examination in which the knowledge and attitude were assessed among 200 women participant those are visiting the health centers in Jiroft city, Iran, They were selected using convenience sampling method, included a questionnaire containing personal social information, as well as some information about the knowledge and attitude of women towards BSE, For data analysis ,SPSS and descriptive inferential statistics were used. The present study showed that women obtained only 34% knowledge scores respectively from total sample of the study. The findings of this study showing that women's knowledge towards BSE were not satisfactory, therefore training programs for encouraging women to perform BSE correctly is recommended by this study. [43]

- **Literatures related to practice/ Skill on breast self -examination.**

This community-based, cross-sectional study was carried out to evaluate the practice of breast self-examination (BSE) among 200womens in rural area of Trichy, Tamil Nadu, India. And a structured interviewer-administered questionnaire used to obtain information on their socio demographic characteristics, awareness on breast cancer, and knowledge, attitude, practice of BSE. Data were entered into MS Excel and analyzed using SPSS version 20.0. Spearman correlation and Chi-square test were used to analyze the association between the variables. The result is showing that only 18% of the females had ever checked their breast and 5% practiced it regularly out of total samples. The level of knowledge and practice of BSE among females are unacceptably low. Therefore this study suggesting that efforts should be made to increase level of practice of BSE through health education programs.[44]

Another cross sectional descriptive study was done among ethnic Kashmiri women. A sample 250 women in the age group of 20 to 60 years was selected from SMHS hospital. The objectives of the study were to assess the practice of breast self-examination among ethnic Kashmiri females. A predesigned semi-structured study instrument was used to collect the

data through interview method. The results are showing that only 5.6% participants had self- examined their breast. Most of the participants had low practice on Breast Self- Examination.[45]

A cross-sectional study was conducted by administering an online survey designed to assess the practice of Breast Self-examination amongst Indian women, aged 30 years and above. A validated questionnaire, consisting 35 questions was widely circulated amongst 1000 females throughout India and responses were collected for a duration of 3 weeks, from 2nd, September 2020 to 23rd,September 2020. Although the results having the respondents were reluctant to practice BSE. The practice domain scores is 13.0 (8.0) out of a maximum of 28, respectively. All three individual score domains were significantly correlated with each other and the total score. Despite the respondents were reluctant to practice BSE.[46]

A cross sectional study was conducted in all colleges of Eritrea. The students were divided into two practical strata as health science and non-health science students. From the strata, 380 participants were selected using systematic random sampling based on probability proportionate to size. Self-administered questionnaire was used to collect the data. Data was analyzed using SPSS statistical package version 20.0. This study found that only 11.7% practiced breast self- examination (BSE). The three main reasons for not practicing were lack of knowledge on how to perform BSE (34%), the belief that there is no problem with their breast (26.4%) and they didn't think they should be examined (12.8%). Media (52.1%) and Health worker (18.3%) were the main sources of information on BSE. In conclusion, the practice level of BSE was found to be low. Therefore, an intensive health education program should be implemented mainly through mass media and at health care facilities.[47]

An institutional based cross-sectional study was carried out among 320 study participants, the aim of this study was to assess knowledge, attitude and practice of breast self- examination (BSE) among regular undergraduate female students of Ambo University. Simple random sampling method was used to select the study participants. Self-administered pre-tested structured questionnaire were used to collect the data for the participants. Crude and adjusted odds ratios using logistic regression analysis were used to explore associations between different variables and breast self- examination. The result was showing that most of the respondents 206(67.5%) were heard information about breast self -examination (BSE); of which 75(36.4%) get from campus though education, 65(31.5%) from mass media, 25(12.1%) from multiple

source, 23(11.2%) from health worker and the rest 20(9.7%) get the information about BSE from their friends. Majority of the respondents have positive attitude towards BSE. Despite positive attitude towards BSE, its practice was low; 63(20.7%) of respondent were ever practiced, while 28(44.4%) were practiced monthly. The major reason of not practicing BSE was lack of knowledge how to perform BSE 67(27.6%) followed by do not had breast problem 49(20.2%). BSE practice was low in this study. Having information on the importance of BSE was predictor of BSE practice. Therefore, it is important to give health information on BSE techniques, actual age at which BSE start, appropriate time when to perform and its role on breast cancer prevention for female students in higher educational institution.[48]

An institution based cross sectional study was conducted at the University of Gondar. A total of 300 students were included in this study. The source population was all female undergraduate nursing students. The object of this study to assess the practice of BSE. The study was selected by simple random sampling technique. Self - administered questionnaire was used for data collection. Then data was entered to Epi info version 3.5.4. The enter data was export to SPSS statistical package for analysis. This finding showed that the participants had poor practice toward BSE. Therefore, Universities and other stake holders should plan to promote provision of information, education and communication targeting females, and the general community to increase awareness to ward breast self -examination.[49]

A descriptive study was used to investigate the practice of BSE among female students in tertiary institutions in Edo state. A sample of 723 participants selected through a combination of multi-stage, systematic and convenience sampling methods was surveyed with the aid of questionnaire for this study. There were 36045 female students in these institutions in academic year according to the official records of the Academic Planning Departments of the respective institution, Out of this, 674 were retrieved and usable. Data analysis involved multiple regression and analysis of variance (ANOVA). The results indicated a high level of practice of BSE. It is therefore recommended that enlightenment campaigns on BSE should continue while research efforts should be directed at ascertaining under what circumstances knowledge of BSE docs not translate into its practice. In the light of the findings above, it is recommended that female students and women generally, should be encouraged through radio/television jingles and health talks to continue their practice of BSE.[50]

A cross-sectional study was conducted to do assessment of breast self- examination practice and associated factors among female workers in Debre Tabor Town public health facilities, North West Ethiopia, A total of 421 female workers in Debre Tabor Town public health facilities were included. The study participants were selected using simple random sampling technique from the study population. The collected data were checked for completeness. The data were entered and cleaned using Epi Data version 3.1 then exported to SPSS version 20 for analysis. Crude odd ratio and probability value were identified for each independent variable and all independent variables with probability value of less than 0.2 were entered into multivariables logistic regression. The study is showing that the prevalence of breast self-examination was low, maximum women had inadequate knowledge regarding Breast abnormalities and Breast self -examination so the nurses are in key position to educate the women to bring down the rate of breast abnormalities among women.[51]

A cross-sectional descriptive study was performed about women's practice of breast cancer screening and breast self-examination. The study was conducted in the Reproductive Health Center of Sousse spread over a period of 2 months; Self- administered questionnaires were distributed to women. This study objective was to determine the prevalence of women performing breast self-examination and to evaluate their practices. The results of this study was showing that 47% of women surveyed have already performed breast self -examination at least once during the last year. 14% of participants practiced breast cancer screening less than once a year. The first source of learning for breast cancer screening was health professionals in 27% of cases. The score of the practice of women surveyed was average; mostly, women have intermediate results for the technique of self-examination breast. No woman had a score of 15/15. A better education of the practice of breast self-examination is essential in order to improve the screening program for breast abnormalities. The role of the gynecologist, general practitioner or midwife is therefore essential in education and training[52]

- **Literatures related to effectiveness of nursing interventional package on breast self- examination**

A quasi experimental study was conducted to assess the effectiveness of nursing interventional package on breast self -examination in terms of knowledge and skill among

teachers of selected schools in Mangalore.30school teachers were selected by using simple random sampling technique, the data was collected by administering structured knowledge questionnaire and an observational checklist on breast self -examination, one group pre-test post -test design was used for the study. After collecting the data, nursing interventional package was administered to the subjects and on 8th day post-test was conducted using the same questionnaire and the observational checklist. The collected data was analyzed using descriptive and inferential statistics. The results is showing that in pre test scores, majority (80%) of the sample had average knowledge, (20%) had good knowledge and none of them had very good knowledge on breast self -examination where as in post test score all of them had very good knowledge on breast self- examination. The skill level of teachers regarding breast examination is showing that in pre -test score, majority (73.33%) of the sample had average level of performance on breast self -examination where as in post -test all of them had good level of performance on breast on breast self- examination. The findings of this study concluded that the nursing interventional package on breast self- examination is effective in improving the knowledge and skill regarding breast self -examination. [53]

A pre-experimental was conducted is to assess the effectiveness of planned teaching program on knowledge and practice of breast self-examination among first year female midwifery students in Hawassa health Sciences College, one group pre-posttest design was used among 61 students who were selected by systematic random sampling technique. Data was collected using structured questionnaire and adapted and approved checklist. Data was entered using Epi-Info and analyzed using SPSS version 20. Pre-and post-intervention results were calculated using paired t-test. Planned teaching intervention on knowledge and Breast self- examination of students has resulted in an increment of both knowledge and the practice of breast self-examination. Teaching breast self-examination with demonstration to all at risk groups as a secondary prevention for breast abnormalities.[54]

A pre-experimental research study was conducted to know the Impact of an educational programme on knowledge on breast cancer and practice of breast self -examination among women. A total of 40 women were recruited by convenient sampling technique. Data were collected by using an instrument with 20 knowledge and 7 practice questions before and after the Health Education programme on BSE. And the findings revealed that the knowledge on

breast cancer and practice scores on BSE were poor at pre-test and improved significantly after an educational intervention. Therefore, this study is recommending that Women need to have appropriate knowledge and practice regarding BSE. The study concluded that the educational programme was helpful in increasing knowledge and practice of BSE among women. Education programme is important to create awareness among women regarding BSE and needs to be continued to help women in prevention and early detection of breast abnormalities.[55]

A Pre experimental study was conducted to assess the effectiveness of educational intervention programme regarding Breast Self- Examination among girl students of study school. In total, 61 girls were included. one group pre-test post-test design was adopted for this study. And the result were analysed by using both descriptive as well as inferential statistics.The result is showing that In pre-test 75.4% had inadequate and only 1.6% had adequate knowledge regarding Breast Self -Examination, in contrast, after the intervention the adequate knowledge was increased to 62.3%. The study concluded that the educational intervention programme on BSE was found to be highly effective as the knowledge score and it was significantly increased after intervention of the package among higher secondary school girls.[56]

A quasi-experimental study was conducted to investigate the effect of an educational program about BSE on nursing students' knowledge, attitude and practice. The study was implemented on 134 students in technical health institute in Damietta and Port Said cities. A self-administered questionnaire form was used to collect data regarding students' personnel characteristics, knowledge and attitude. Observation checklist for practice of BSE was used. An educational program was developed and to improve their related knowledge, attitude and practice. The evaluation of the effect of the program was done by comparing pre to post and 3months follow-up findings. The results demonstrated very low students' knowledge, attitude and practice before the intervention, with statistically significant improvements after the intervention. The study concluded that training nursing students in BSE has a positive impact on their knowledge, attitude and practice. Hence, similar training programs should be implemented in similar settings.[57]

An interventional study was carried out among 135 employed women in 2019 to investigate their screening behavior by using a questionnaire based on the Protection Motivation and Social Support Theories. The study compared the efficacy of 2 educational interventions (a

workshop and an E-learning program) between 2 intervention groups and a control group. The results were collected 3 months after the interventions had taken place. Data were analyzed in SPSS 23 using descriptive statistics, chi-square, analysis of variance (ANOVA), and the paired sample t-test. And the results were found that a significant difference between the mean score of knowledge and the theoretical constructs before and after the interventions the results also showing that both the intervention methods had a similar effect and that there was a significant difference in the performance of breast self-examinations between the intervention and control groups after the intervention. Hence the study is recommending that the health care planners should assist in designing and implementing this effective form of intervention to encourage many more women to perform self-examinations.[58]

A quasi experimental study was conducted to determine the effect of education on knowledge and performance of 20-60 year old women in Yazd city about Breast Self -Examination (BSE). In this study, 100 women aged from 20 to 60 years old who referred to Yazd health centers were selected. The data was collected through administration of questionnaires before and after training in two stages. The collected information were then analyzed using the statistical software SPSS (version 18) by T-tests and ANOVA and the study results were found that the positive impact of education on the increase of knowledge and performance, educational programs in the field of breast cancer and its screening methods are recommended to be held for all age groups. In order to promote women's health from puberty to menopause more attention should be paid to the follow-up and training.[59]

The above studies showing that if we provide knowledge regarding breast self- examination and increase the performance ability, women can be able to do self -examination and will detect the breast complications in the beginning stage itself. Therefore it is necessary to conduct the study and contribute in decreasing the mortality rate among women dying due to breast diseases in our country. Indeed, preventive practices such as breast self-examination are useful and effective ways to spot breast diseases at an early stage facilitating the receipts of early treatments.

4. RESEARCH METHODOLOGY

Research methodology refers to control investigations through the ways of retaining, organizing and analyzing data. Methodological studies address the development and evaluation of research tools and techniques. It includes research approach, research design, study setting, sample size, sampling technique and criteria for sample selection. It further deals with development and description of tools, validity and reliability, pilot study, procedure for data collection, plan for data analysis, and protection of human rights.

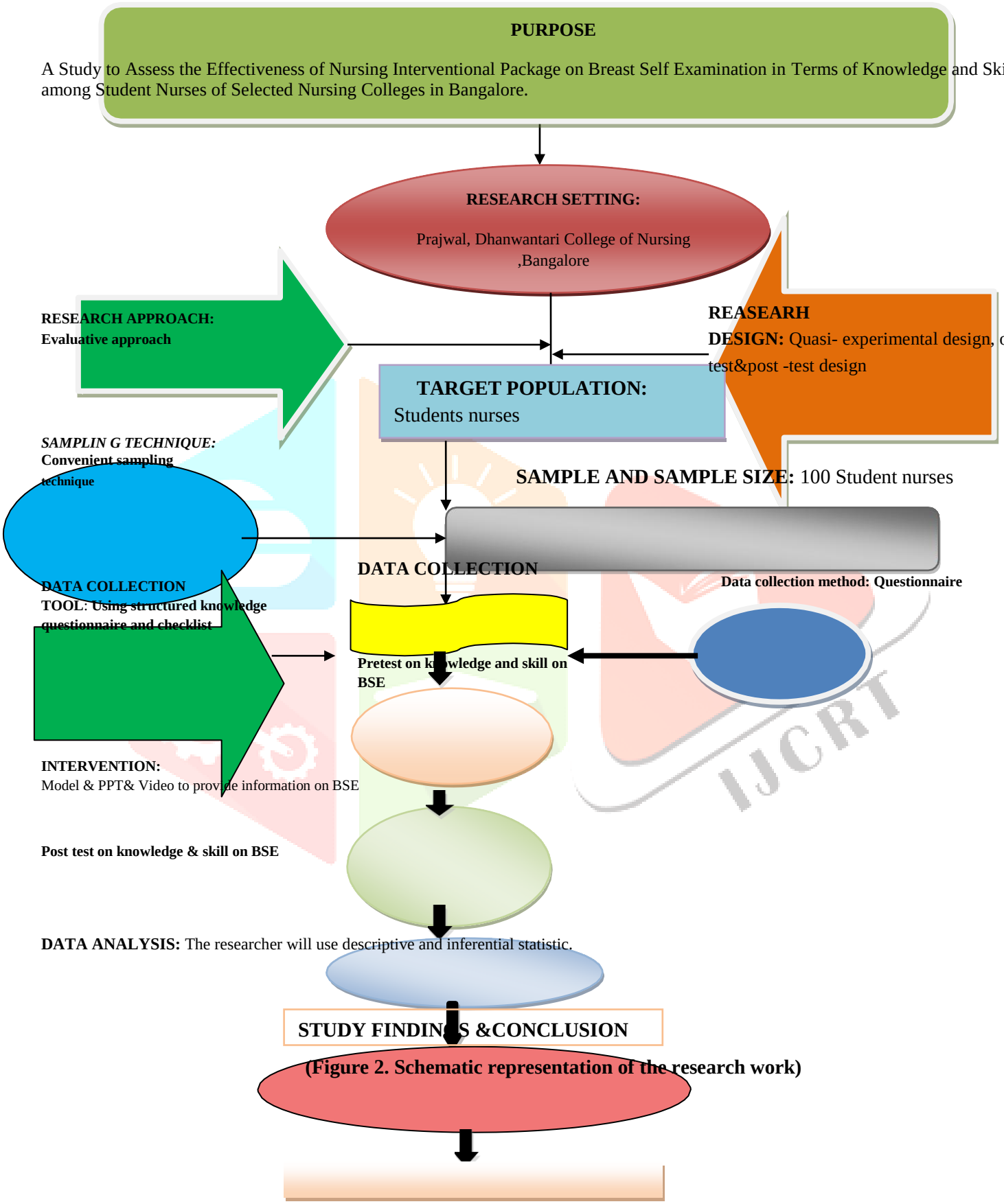
Research approach:

The research approach indicates the basic procedure for conducting research based on the nature of the problem and the objectives of the study the research approach chosen for the study is evaluative approach. This approach was considered as appropriate to evaluate the effectiveness of Nursing interventional package in terms of knowledge and skill of students nurses regarding breast self -examination.

Research design:

The research design refers to the researchers overall plan for obtain answers for research questions, and it spells out the strategies adopted to develop information that is accurate, objective and interpretative.

The research design selected for this study is Quasi- experimental design, one group pre- test& post -test design to determine the effectiveness of nursing interventional package on breast self- examination among student nurses.



(Figure 2. Schematic representation of the research work)

Settings:

The research setting refers to the place where the data were collected for the study. The present study were undertaken in the Prajwal and Dhanwantari college of Nursing, Bangalore., due to geographical proximity, feasibility of the study and availability of the samples.

Variables in the study:

A variable is a Phenomena or characteristics or attributes under a study Variables are the measurable characteristics of a concept and consist of a logical group of attributes.

The variables of the study were

Dependent variable:

The dependent variable refers to the level of knowledge and skill of student nurse in selected nursing college in Bangalore.

Independent variable:

In this study, nursing interventional package on breast self –examination is the independent variable.

Demographic Variables:

In this study demographic variables are:

Age, age at menarche, marital status, no. of girl siblings, frequency of exercise, religion, place of living , type of family, family history of breast abnormalities, source of information about BSE.

Population:

A Population is the entire set of individuals or objects having some common characteristics.

In this study the population consists of all student nurses who are studying in nursing colleges in Bangalore.

SAMPLE AND SAMPLING:

Sample:

A sample is a subset or portion of population, that has been selected to represents the population of interest.

A sample of 100 student nurses who meet the inclusion criteria were selected from the target population for the study (Prajwal, Dhanawantari College of Nursing in Bangalore) **Sampling techniques:**

Sampling is the process of selecting a portion of the people to represent the entire population.

Non probability convenience sampling technique was used to select 100 student nurses from Prajwal and Dhanawantari College of Nursing, Bangalore.

CRITERIA FOR THE SELECTION OF SAMPLE:

Sampling criteria can be referred as the eligibility criteria, which includes the list of essential for eligibility or membership in the target population. Sampling criteria for a study consist of inclusion or exclusion sampling criteria or both

Inclusion criteria: Student nurses who are

- Studying in first year B. Sc Nursing Student.
- Female nursing students in selected nursing colleges.
- Available during the data collection period.

Exclusion criteria: Student nurses who are

- Absent during the time of data collection.

SELECTION AND DEVELOPMENT OF TOOL:

Section and development of tool based on the research problem and objectives of the study, the following steps are undertaken to select and develop the data collection tool.

SELECTION OF TOOL:

Selection of tool based on the objectives of the study a structured knowledge questionnaire and observational checklist are used to assess the knowledge and skill were selected as the tool, as it was considered as an appropriate instrument to elicit response from the participants.

DEVELOPMENT AND DESCRIPTION OF TOOL:

Data collection is the gathering of information needed to assess the address research problem. Tools are the instruments used by the researcher to collect the data. In this present study

Questionnaire was used to collect the data among first year B. Sc. nursing students and it is regarded to be an appropriate instrument.

After an extensive review of literature and discussion with the experts questionnaire was used to assess the knowledge of first year B. Sc nursing students regarding BSE and the skill was assessed by the observational checklist.

PREPARATION OF THE BLUE PRINT:

A blue print was prepared prior to the construction of structured knowledge questionnaire and observational checklist. It depicts the distribution of items according to the contents areas. The structured questionnaire includes three domain; knowledge, comprehension and application.

According to the content area in blue print, adequate number of items was prepared in each area. Then the prepared items were subjected to content validation, pre-testing and estimation of reliability.

BLUE PRINT OF DISTRIBUTION OF ITEM:

The blue print of the structured questionnaire assessing knowledge regarding Breast self -examination is given below:

Table 1: Blue Print on Knowledge related to Breast self -examination includes Anatomy of Breast & Physiology of Breast, Purposes of BSE, Criteria of BSE, Techniques of breast self- examination and abnormal findings of BSE.

TABLE:-1

Content	**Knowledge**			**Comprehension**			**Application**			**Total**	
	Q. No	**Total No.**	**%**	**Q. No**	**Total No.**	**%**	**Q. No**	**Total No.**	**%**	**Q. No**	**%**
Anatomy of Breast & Physiology of Breast	1,2,3,4,5,7,9,10	7	26.6%	6,8	2	6.6%					
Purposes of BSE	12,13,14,26	4	13.3%								
Criteria of BSE	15,19	2	6.6%	30	1	3.3%	16,17,18	3	10%		
Techniques of breast self examination	21,22,24,25	4	13.3%	20	1	3.3%	23	1	3.3%		
Abnormal findings of BSE	11,27,28,29	4	13.3%								
Total		**21**	**73.3%**		**4**	**13.4%**		**4**	**13.3%**	**30**	**100%**

The observation checklist includes inspection, palpation, and position.

Blue print of distribution of items:

Blue print for the observation checklist
TABLE-2

Si. No	Content area	No. of questions	Percentage
1.	Inspection	2,3,4(3)	21.42
2.	Position	1,5,10,12,13(5)	35.71
3.	Palpation	6,7,8,9,11,14(6)	42.85
	Total	**14**	**100.00**

SELECTION AND DEVELOPMENT OF TOOL:

Data collection tools are the procedures or the instruments used by the researcher to observe or measure key variables in the research (Polit and Hungler 1999). The tool acts as the best instruments to assess and collect data from the respondents of the study.

Structured knowledge questionnaire was an appropriate and effective method to evaluate the knowledge of the student nurses. The main strengths behind development of the tool are review of research and non- research materials on relevant topics regarding breast self- examination in terms of knowledge and skill, consultation with the subject experts, discussion with the colleagues and investigator, experience in clinical settings and books.

The following steps are under taken:

Description of tool:

The knowledge questionnaire was constructed into 2 parts with the total no. of 30 items.

The researcher develops a structured knowledge question which contains items of the following aspects

PART I: Socio- demographic variables

It consists of Age group, Age at menarche, Marital status, Number of girl siblings, Frequency of exercise, religion, place of living, type of family, family history, source of information.

PART II: Structured Knowledge Questionnaire

The knowledge of student nurses on breast self- examination ,It consist of 30 items which include Anatomy & Physiology of Breast, purpose of BSE, Criteria of BSE, Techniques of BSE and abnormal findings. Each items has 4 option with one correct answer with the score 1.

PART III: Observational checklist

Observation checklist on skill of BSE among student nurses it consists of 14 items which include inspection, position, palpation.

CONTENT VALIDITY:

It refers to the degree to which an instrument measures what it is supposed to measure. The prepared instrument/tool along with objectives, blueprint and answer key was

submitted to panel of experts to establish content validity. These includes: Two doctors and five nursing experts from the department of obstetrics and gynecology in College of Nursing, Bangalore.

Consent for the tool validation was obtained by sending a requisition letter and an acceptance form. Experts were requested to give their opinions and suggestions regarding each item in the tool in terms of Strongly Agree (SA), Agree (A), and Disagree (DA). They were also requested to give their remarks for each question. The questions of the tool were modified according to the recommendations and suggestions of the experts.

RELIABILITY OF TOOLS

Reliability is defined as the extent to which the instrument yields the same results in repeated measures. It is then concerned with the consistency, accuracy, precision, stability, equivalence and homogeneity. Split half method is a method for estimating internal consistency by correlating the scores on the instruments with scores on the other half.

The reliability of the tool was established by administering the tool to 100 student nurses in selected nursing college in Bangalore .The coefficient of internal consistency of the knowledge questionnaire was checked by using cronbach's alpha and inter rater reliability method was used to establish the equivalence of the observational checklist. Correlation between

the observations was measured by using spearman rank correlation method. Hence the tools were found to be reliable.

PILOT STUDY

Pilot study is the small scale version or trial run done in preparation of a major study. After obtaining a formal permission of Principal of Sri Ramakrishna College of Nursing, Bangalore a pilot study was conducted from 10 students on 19th April 2021.The convenient sampling technique was used to do the data collection.

Intension of pilot study was to pre -test the data collection instrument, to find out the feasibility of conducting the research and also to decide upon the plan of statistical analysis. One day the pretest was conducted, later nursing interventional package was administered to the participant and post test was conducted on the next day of intervention. The tools and study design were found to be feasible.

DATA COLLECTION PROCEDURE

A Formal written permission was obtained from Principal of Prajwal and Dhanwantari College of Nursing in Bangalore. Data were collected from 23/04/2021 to 30/04/2021. Sample was selected as per the sampling criteria. The purpose of the study was explained and cooperation required from respondents was explained to them. Confidentiality was assured. Consent to participate in the study was obtained from each subject. Pre- test was conducted and nursing interventional package was administered to participants.

PLAN FOR DATA ANALYSIS

The cases were selected on the basis of Convenient sampling technique. The information was gathered in the pre-tested and pre-tested Performa by questionnaire all the student nurses selected. The data was tabulated according to various parameters like Age in years, age of menarche, religion, marital status, place of living, types of family, total no. of girl siblings, family history of breast abnormalities, frequency of exercise, source of information. Data was represented by using various graphical devices like bar diagram, pie diagram, etc.

The analysis was made by using the important parameters like percentage, mean, SD and chi-square test. The values are compared at 5% level of significance for the corresponding degree of freedom. P<0.05 was considered as not significant and P>0.05 was considered as significant. (Formulae used are appended in annexure 14)

. Validity and reliability of the same was tested. Data was collected from the sample after obtaining permission for the concerned authority. Collected data analyzed using descriptive and inferential statistics and presented in the form of tables and graph.

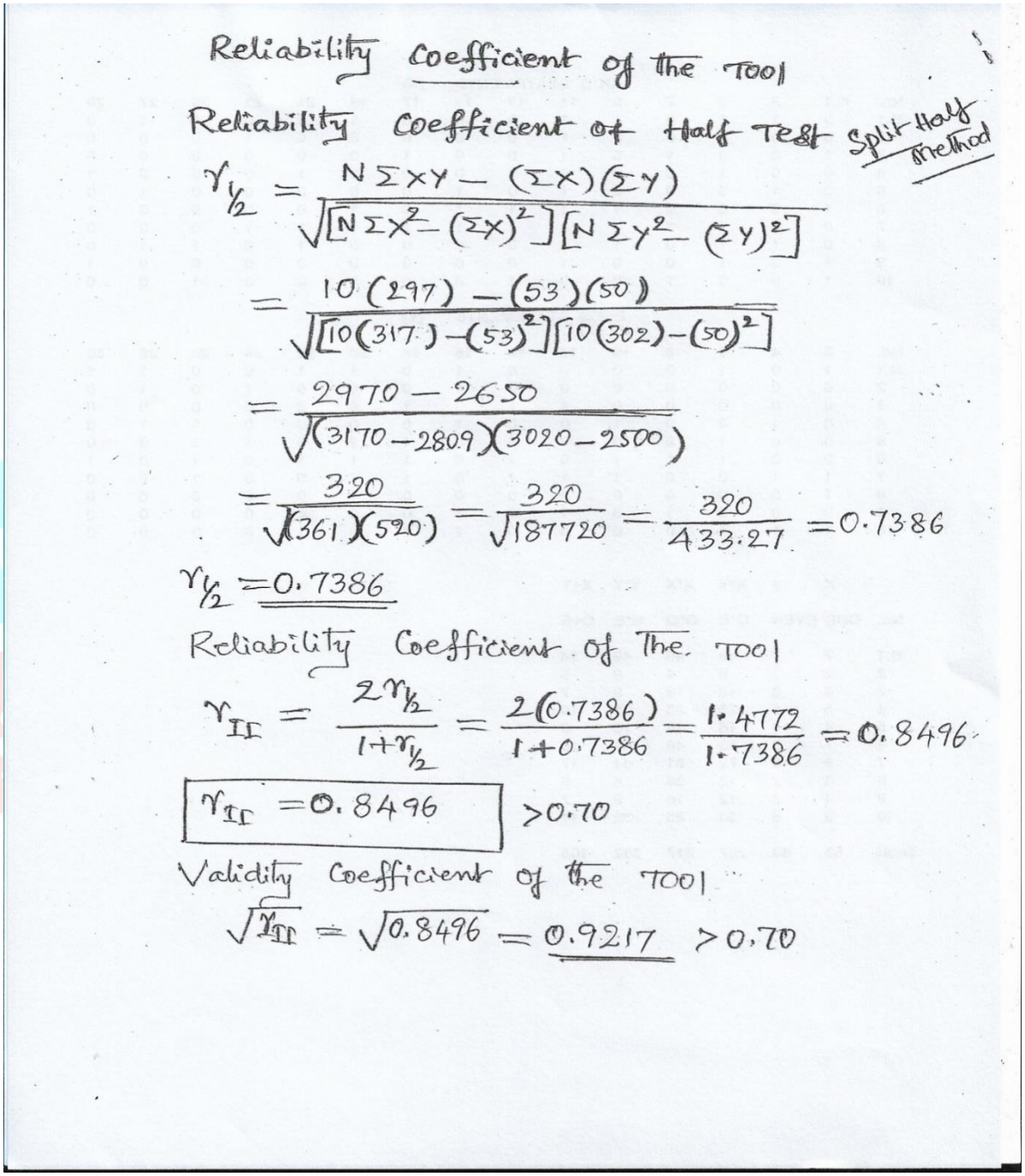
PROTECTION OF HUMAN SUBJECTS

The investigator conducted the proposed study after getting approval from the dissertation committee of the university. Permission was obtained from Prajwal and Dhanwantari College of Nursing, Bangalore. The consent of the participant was obtained before data collection. Assurance was given to the participants regarding confidentiality of the information collected from them.

SUMMARY

This chapter had deal with research approach, research design, settings, population, sample and sampling technique, criteria for sample selection, method of sample selection, development and description of the tool, pilot study, data collection procedure, plan for data analysis and projection of the human subject.

SAMPLE SIZE ESTIMATION



Reliability Coefficient of the Tool

Reliability Coefficient of Half Test — Split Half Method

$$r_{1/2} = \frac{N\Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2][N\Sigma Y^2 - (\Sigma Y)^2]}}$$

$$= \frac{10(297) - (53)(50)}{\sqrt{[10(317) - (53)^2][10(302) - (50)^2]}}$$

$$= \frac{2970 - 2650}{\sqrt{(3170 - 2809)(3020 - 2500)}}$$

$$= \frac{320}{\sqrt{(361)(520)}} = \frac{320}{\sqrt{187720}} = \frac{320}{433.27} = 0.7386$$

$r_{1/2} = 0.7386$

Reliability Coefficient of The Tool

$$r_{II} = \frac{2r_{1/2}}{1 + r_{1/2}} = \frac{2(0.7386)}{1 + 0.7386} = \frac{1.4772}{1.7386} = 0.8496$$

$r_{II} = 0.8496$ > 0.70

Validity Coefficient of the Tool

$\sqrt{r_{II}} = \sqrt{0.8496} = 0.9217$ > 0.70

5. RESULTS

Analysis is a detailed examination of the elements or structure of something. In research, analysis refers to categorizing, ordering, manipulating and summarizing the data to obtain answers to research questions. The purpose of analysis is to reduce the data to an intelligible and interpretable form so that the relation of research can be studied.

This chapter deals with the analysis and interpretation of data obtained from 100 adolescent girls in order to assess the effectiveness of nursing interventional package on breast self- examination in terms of knowledge and skill among student nurses. The data collected from the adolescent girls before and after nursing interventional package was organized, tabulated, analyzed, and interpreted by using description and inferential statistics. The data collection was done based on the objectives of the study.

THE MAIN OBJECTIVES:

- ✓ To assess the pretest & post -test knowledge regarding breast self -examination
- ✓ To assess the pre- test & post -test skill regarding breast self- examination
- ✓ To determine the effectiveness of Nursing interventional package on knowledge and skill among student nurses.
- ✓ To determine association between pretest knowledge with selected demographic variables.
- ✓ To determine association between pretest skill with selected demographic variables.

HYPOTHESIS:

H1- There is a significant improvement in knowledge and skill scores of student nurse on breast self -examination.

H2- There is a significant association between pre -test level of knowledge and skill scores with selected demographic variables.

ORGANIZATION OF FINDINGS:

The data is organized, analyzed and presented under the following sections:

SECTION A: Frequency and percentage distribution of respondents based on demographic characteristics

SECTION B: Overall and Aspect wise knowledge on breast self -examination

SECTION C: Overall and Aspect wise skill regarding breast self -examination

SECTION D: Effectiveness of nursing interventional package on breast self -examination **SECTION E:** Association between pre- test knowledge and selected demographic variables. **SECTION F:** Association between pre -test skill and selected demographic variables.

SECTION - A: Demographic Characteristics of Respondents

Table-1

Frequency and percentage distribution of respondents based on demographic characteristics.

N=100

Characteristics	Category	Respondents	
		Number	Percent
Age group	17 years	40	40.0
	18 years	21	21.0
	19 years	31	31.0
	>19 years	8	8.0
Age at menarche	12 years	29	29.0
	13 years	49	49.0
	14 years	22	22.0
Marital status	Single	91	91.0
	Married	9	9.0
Number of girl siblings	No	64	64.0
	One	14	14.0
	Two	11	11.0
	Three	11	11.0
Frequency of exercise	Regularly	46	46.0

	Weekly twice	24	24.0
	No	30	30.0
Religion	Hindu	67	67.0
	Muslim	21	21.0
	Christian	12	12.0
Place of living	Rural	43	43.0
	Urban	57	57.0
Type of family	Joint	56	56.0
	Nuclear	44	44.0
Family history of Breast Abnormalities	Yes	80	80.0
	No	20	20.0
Source of Information	Mass media	53	53.0
	Relatives & Friends	19	19.0
	Health personnel	17	17.0
	Others	11	11.0
Total		**100**	**100.0**

Table –1 shows that out of 100 respondents with regards to the age group of student nurses 40(40%) respondents were in the age group of 17 years, 21(21%) of the respondents are in the age group of 18 years, 31(31%) of the respondents are in the age group of 19 years, 8 (8%) respondents are in the age of >19 years. With regards to their age of menarche 29 (29%) of the respondents are attain menarche in the age of 12 years, 49(49%) respondents are attain their menarche in the age of 13 years, 22 (22%) of the respondents are attain menarche in the age of 14years. With regards to their marital status majority 91(91%) of the respondents are single, only 9(9%) of the respondents are married. With regards to their no. of siblings, majority of the respondents 64(64%) are not having any girls siblings but 14(14%) are having 1 girl sibling, 11 (11%) are having two girl siblings and 11(11%) are having three siblings. With regards to their frequency of exercise, majority 46 (46%) of the respondents are practicing exercises regularly and only 24(24%) are doing exercises in weekly twice times, and 30(30%) are not doing any exercises. With regards to their religion, majority 67(67%) of the respondents are belongs to Hindu religion, 21 (21%) are belongs to Muslim and remaining 12 (12%) are belongs to Christian religion. With regards to their place of living, 57(57%) of the samples are from urban area, and 43(43%) are from rural area. With regards to their type of family, 56(56%) of the respondents are belongs from joint family, and 44(44%) were belongs from nuclear family. With regards to their family history of family history of breast abnormalities, majority 80(80%) of the respondents are having history of breast abnormalities, and 20(20%) are not having any history of breast abnormalities. With regards to their source of information about BSE, 53(53%) got

information regarding breast self-examination from mass media, 19(19%) of them are of the respondents are obtaining information from relatives & friends, 17(17%) of the respondents are getting information from health personnel, and 11(11%) of them are having information from other source.

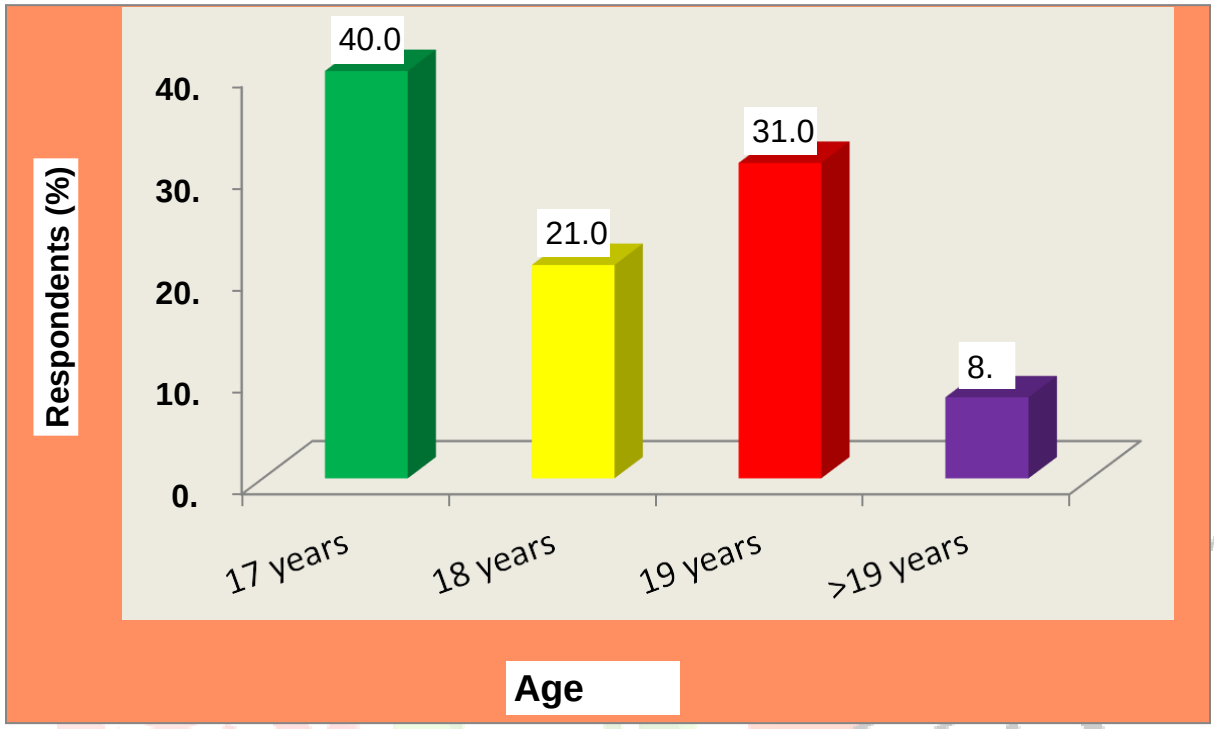


Figure .1: Representing the Frequency and percentage distribution of respondents according to their Age group

Figure 1 shows that out of 100 respondents with regard to their age group of student nurses 40(40%) respondents were in the age group of 17 years, 21(21%) of the respondents are in the age group of 18 years, 31(31%) of the respondents are in the age group of 19 years, 8 (8%) respondents are in the age of >19 years.

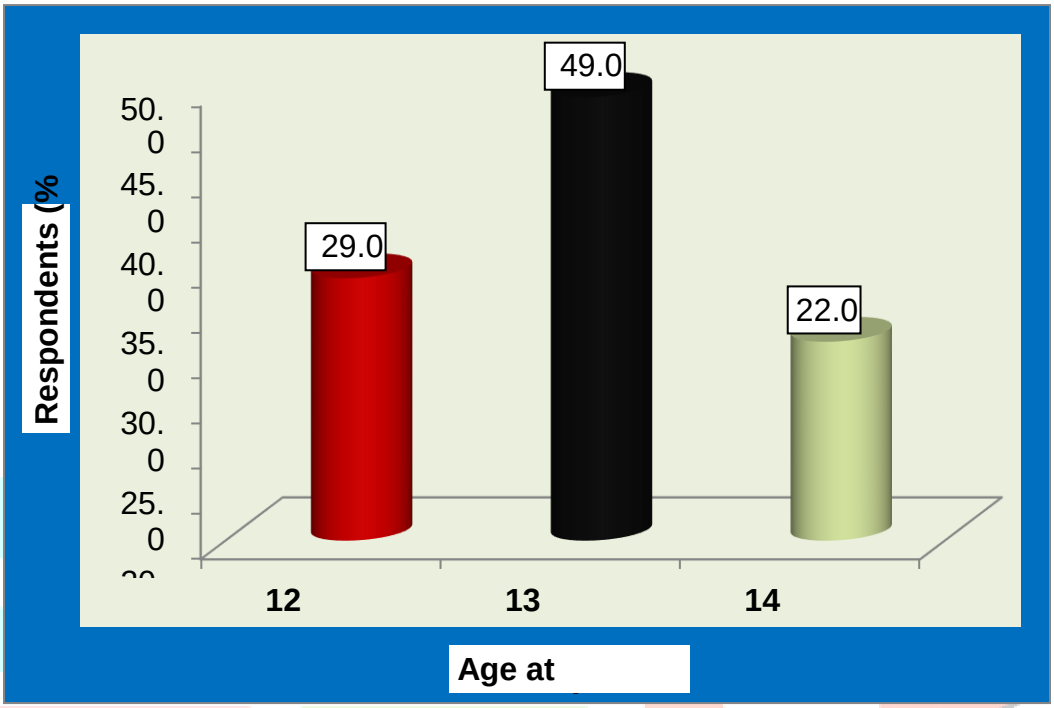


Figure .2: Representing the Frequency and percentage distribution of respondents according to their Age at menarche

Figure 2 shows that out of 100 respondents with regards to their age of menarche 29 (29%) of the respondents are attain menarche in the age of 12 years, 49(49%) respondents are attain their menarche in the age of 13 years, 22 (22%) of the respondents are attain menarche in the age of 14years..

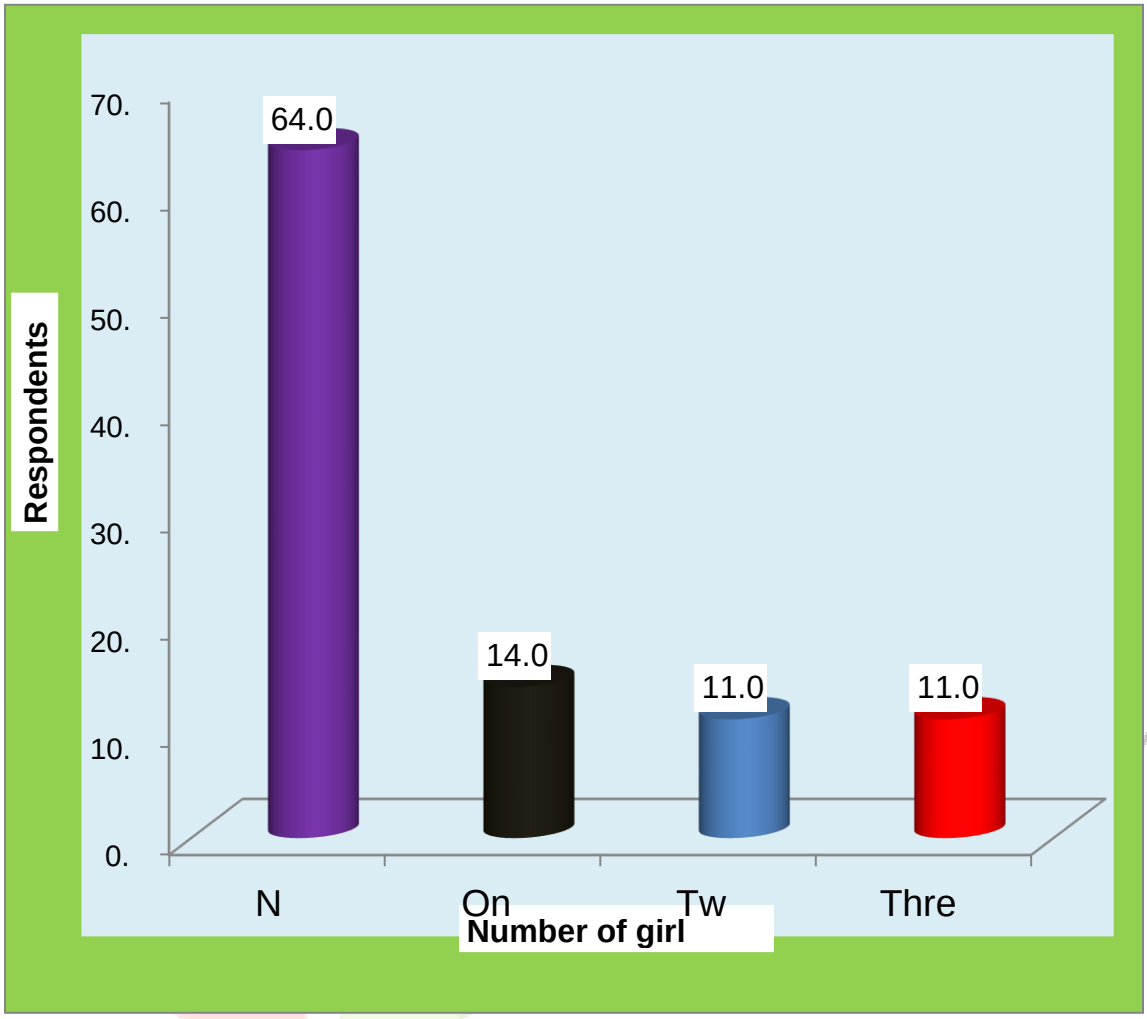


Figure .3: Representing the Frequency and percentage distribution of respondents according to their Number of girl siblings

Figure .3 shows that out of 100 respondents with regards to their no. of siblings, majority of the respondents 64(64%) are not having any girls siblings but 14(14%) are having 1 girl sibling, 11 (11%) are having two girl siblings and 11(11%) are having three siblings

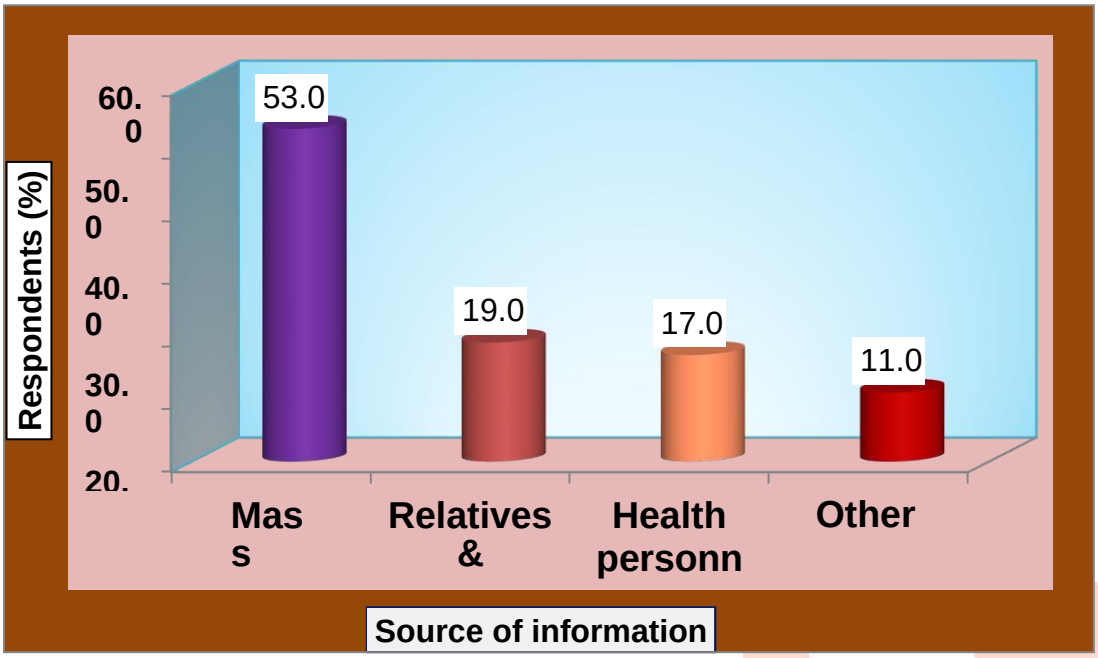


Figure .4: Representing the Frequency and percentage distribution of respondents according to their source of information about breast self-examination

Figure.4. shows that out of 100 respondents with regards to their source of information about BSE, 53(53%) got information regarding breast self examination from mass media, 19(19%) of them are of the respondents are obtaining information from relatives & friends, 17(17%) of the respondents are getting information from health personnel, and 11(11%) of them are having information from other source.

SECTION B: Overall and Aspect wise Pre test Knowledge level on Breast self examination TABLE – 2

Classification of Respondent Pre test Knowledge level on Breast self examination

N=100

Knowledge Level	Category	Respondents	
		Number	Percent
Inadequate	≤ 50 % Score	70	70.0
Moderate	51-75 % Score	30	30.0
Adequate	> 75 % Score	0	0.0
Total		**100**	**100.0**

Table –2 shows that out of 100 respondents with regards to their pretest knowledge on Breast self examination, 70 (70%) are having inadequate knowledge 30(30%) are having moderate knowledge and no student nurses were having adequate knowledge regarding Breast self examination.

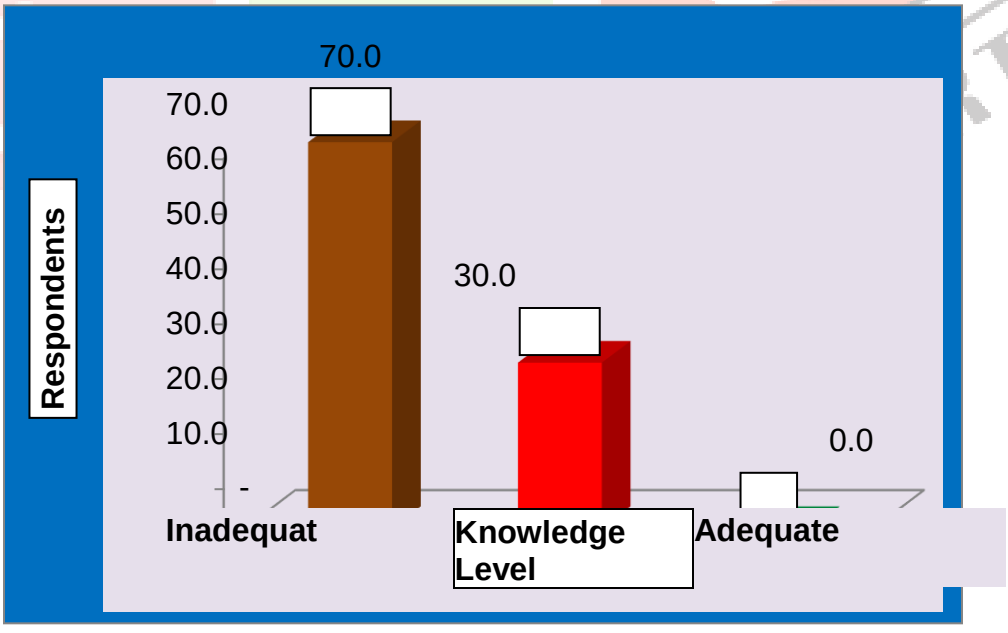


Figure .5: Representing Classification of Respondent Pre test Knowledge level on Breast self examination

TABLE -3

Aspect wise Pre test Mean Knowledge scores of Respondents on Breast self examination

N=100

No.	Knowledge Aspects	Statements	Max. Score	Knowledge Scores			
				Mean	SD	Mean(%)	SD(%)
I	Anatomy and Physiology of Breast	10	10	3.77	1.90	37.7	19.0
II	Breast self examination	20	20	5.43	3.44	27.2	17.2
	Combined	**30**	**30**	**9.20**	**4.65**	**30.7**	**15.5**

Table –3 shows that out of 100 respondents with regards the mean pre-test knowledge scores of respondents on Breast self examination. The maximum mean percentage score obtained by the respondents is 37.7% in the aspect of anatomy and physiology of breast with standard deviation of 1.90. Mean percentage of breast self examination is 27.2% with the standard deviation of 3.44.The combined mean percentage score by the respondents is 30.7% with the standard deviation of 4.65.

TABLE -4

Classification of Respondents of Post test Knowledge level on Breast self examination

Knowledge Level	Category	Respondents	
		Number	Percent
Inadequate	≤ 50 % Score	0	0.0
Moderate	51-75 % Score	23	23.0
Adequate	> 75 % Score	77	77.0
Total		**100**	**100.0**

Table –4 shows that out of 100 respondents with regards to the Post test Knowledge level on Breast self examination ,77(77%)are having adequate knowledge,23(23%) are having moderate knowledge and no student nurses having inadequate knowledge regarding Breast self examination.

TABLE -5

Aspect wise Post test Mean Knowledge scores of Respondents on Breast self examination

N=100

No.	Knowledge Aspects	Statements	Max. Score	Knowledge Scores			
				Mean	SD	Mean(%)	SD(%)
I	Anatomy and Physiology of Breast	10	10	8.58	1.23	85.8	12.3
II	Breast self examination	20	20	17.35	1.85	86.8	9.2
	Combined	**30**	**30**	**25.93**	**2.71**	**86.4**	**9.0**

Table –5 shows that out of 100 respondents with regards to the mean post-test knowledge scores of respondents on Breast self examination. The maximum mean percentage score obtained by the respondents is 86.8% in the aspect of Breast self examination with standard deviation of

1.85. Mean percentage of anatomy and physiology of breast is 85.8% with the standard deviation of 12.3.The combined mean percentage score by the respondents is 86.4% with the standard deviation of 2.71.

SECTION C: Overall and Aspect wise skill regarding breast self examination TABLE – 6

Classification of Respondent Pre test Skill level on Breast self examination

Skill Level	Category	Respondents	
		Number	Percent
Inadequate	≤ 50 % Score	80	80.0
Moderate	51-75 % Score	20	20.0
Adequate	> 75 % Score	0	0.0
Total		**100**	**100.0**

Table –6 shows that out of 100 respondents with regards to the pretest Skill level on Breast self examination, 80 (80%) are having inadequate skill, 20(20%) are having moderate skill and no student nurses having adequate skill regarding Breast self examination.

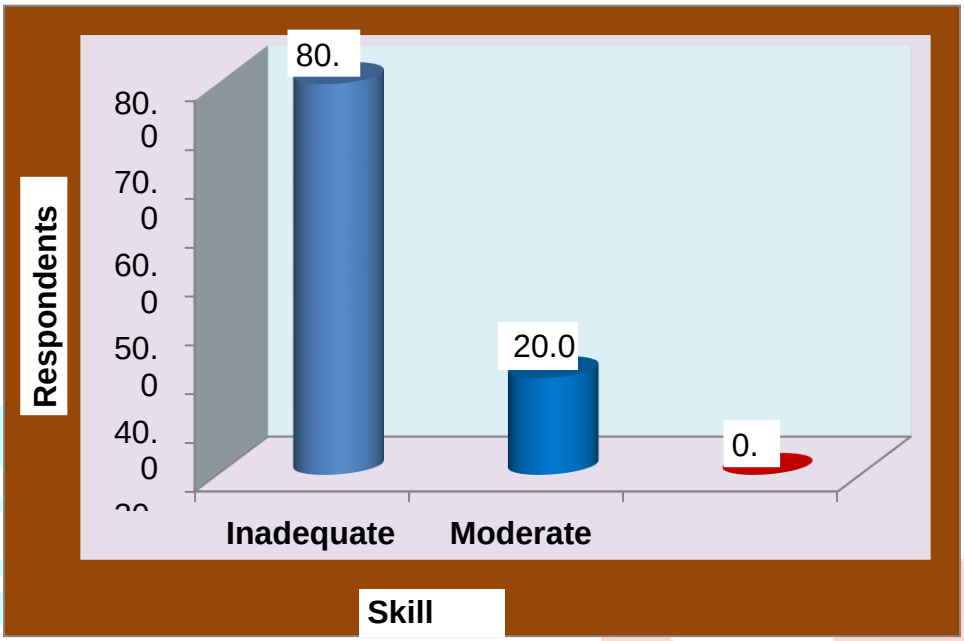


Figure .6: Representing the percentage distribution of Respondent Pre test Skill level on Breast self examination

TABLE -7

Aspect wise Pre test Mean Skill scores of Respondents on Breast self examination

N=100

No.	Aspects	Statements	Max. Score	Skill Scores			
				Mean	SD	Mean(%)	SD(%)
I	**Skill**	**14**	**14**	**4.20**	**2.15**	**30.0**	**15.3**

Table –7 shows that out of 100 respondents with regards to the mean pre-test skill scores on Breast self examination. The mean skill percentage score obtained by the respondents is 30% with standard deviation of 2.15.

TABLE – 8

Classification of Respondent Post test Skill level on Breast self examination

Skill Level	Category	Respondents	
		Number	Percent
Inadequate	≤ 50 % Score	0	0.0
Moderate	51-75 % Score	23	23.0
Adequate	> 75 % Score	77	77.0
Total		**100**	**100.0**

Table –8 shows that out of 100 respondents with regards to the post test skill level on breast self examination ,77(77%)are having adequate skill,23(23%) are having moderate skill and no student nurses having inadequate skill regarding Breast self examination.

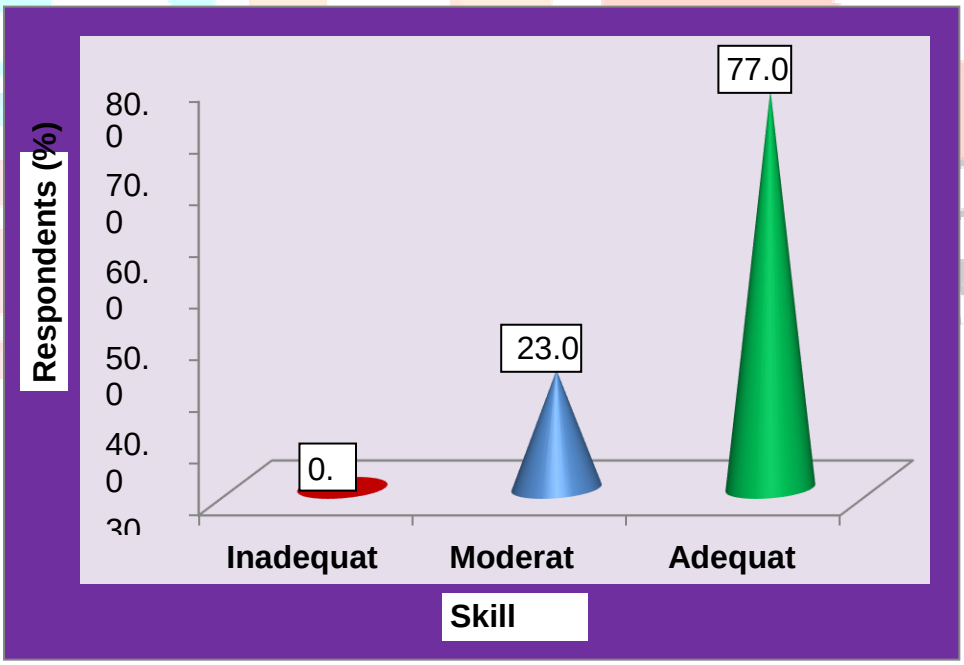


Figure .7: Representing the Classification of Respondent Post test Skill level on Breast self examination

TABLE -9

Aspect wise Post test Mean Skill scores of Respondents on Breast self examination

N=100

No.	Aspects	Statements	Max. Score	Skill Scores			
				Mean	SD	Mean(%)	SD(%)
I	**Skill**	**14**	**14**	**11.40**	**1.17**	**81.4**	**8.3**

Table -9 shows that out of 100 respondents with regards to the mean post-test skill scores on Breast self examination. The mean skill percentage score obtained by the respondents is 81.4% with standard deviation of 1.17.

SECTION D: Effectiveness of nursing interventional package on breast self examination

TABLE – 10

Over all Pre test and Post test Mean Knowledge scores on Breast self examination

N=100

Aspects	Max. Score	Knowledge Scores				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	30	9.20	4.65	30.7	15.5	36.23*
Post test	30	25.93	2.71	86.4	9.0	
Enhancement	**30**	**16.73**	**4.63**	**55.8**	**15.4**	

*** Significant at 5% level, t (0.05,99df) = 1.96**

Table -10 shows that out of 100 respondents with regards to the overall mean knowledge scores of pre-test ,post-test and enhancement scores regarding Breast self examination among student nurses.

The findings reveal that post test mean percentage scores is found higher [mean%=86.4%, SD of 9.0%] when compared with pre-test mean percentage scores value which

was 30.7% with SD of 15.5%%. The mean knowledge enhancement scores was 55.8% with SD 15.4%

The statistical paired t implies that the difference in the pre-test and post-test value was found statistically significant at 5%level ($p<0.05$) with a paired t value of 36.23.there exists a statistical significance in the difference of knowledge scores indicating the positive impact of Nursing interventional package.

Hence, the research hypothesis $H_1$is supported. This indicates that the enhancement of knowledge is not by chance. In this present study the student nurses who were exposed to nursing interventional package significantly improved their knowledge and skill on breast self examination.

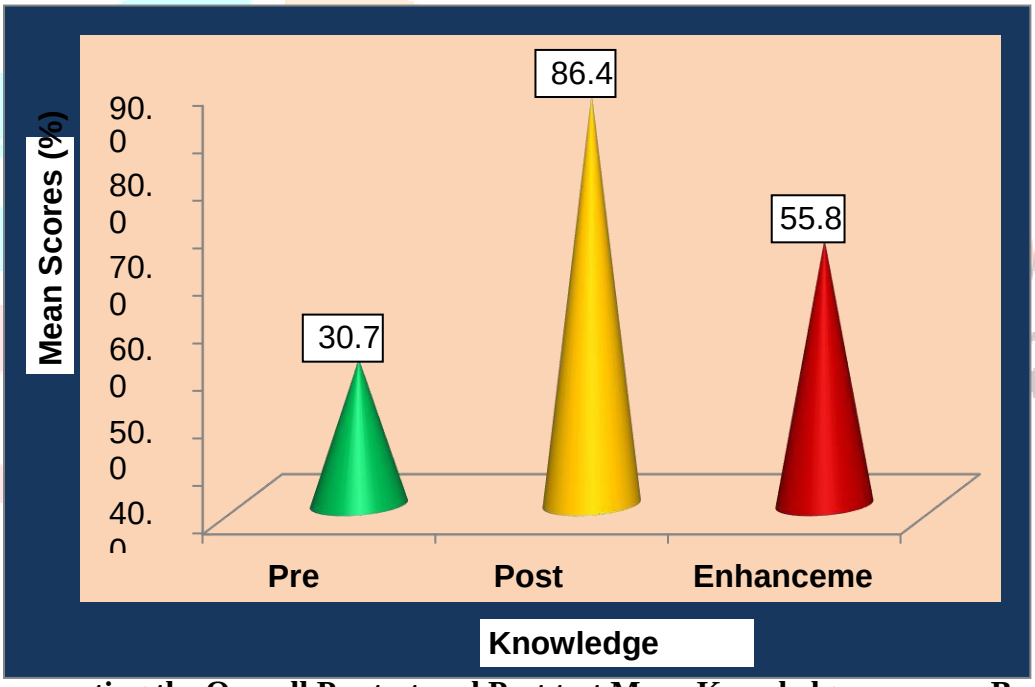


Figure .8: Representing the Overall Pre test and Post test Mean Knowledge scores on Breast self examination

TABLE – 11

Aspect wise Mean Pre test and Post test Knowledge scores on Breast self examination

N = 100

No.	Knowledge Aspects	Respondents Knowledge (%)						Paired 't' Test
		Pre test		Post test		Enhancement		
		Mean	SD	Mean	SD	Mean	SD	
I	Anatomy and Physiology of breast	37.7	19.0	85.8	12.3	48.2	18.1	26.63*
II	Breast self examination	27.2	17.2	86.8	9.2	59.6	17.9	33.30*
	Combined	**30.7**	**15.5**	**86.4**	**9.0**	**55.8**	**15.4**	36.23*

*** Significant at 5% level,** **t (0.05,99df) = 1.96**

Table-11 shows that out of 100 respondents with regards to the aspect wise mean knowledge scores of pre-test ,post-test and enhancement scores regarding Breast self examination among student nurses.

The findings reveal that post test mean percentage scores was found higher [mean%=86.4%, SD of 9.0%] when compared with pre-test mean percentage scores value which was 30.7% with SD of 15.5%%. The mean knowledge enhancement scores was 55.8% with SD 15.4%

The statistical paired t implies that the difference in the pre-test and post-test value was found statistically significant at 5%level ($p<0.05$) with a paired t value of 36.23.there exists a statistical significance in the difference of knowledge scores indicating the positive impact of Nursing interventional package.

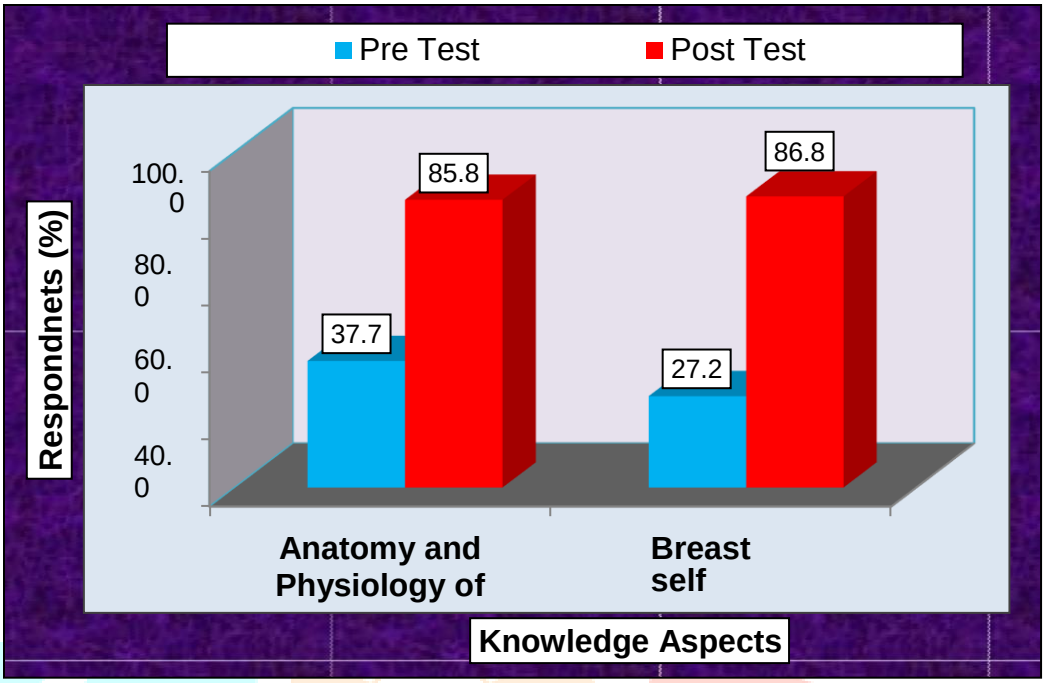


Figure .9: Representing the percentage of distribution of respondents according to their Aspect wise Mean Pre test and Post test Knowledge scores on Breast self examination.

TABLE – 12

Classification of Respondents on Pre test and Post test Knowledge level on Breast self examination

Knowledge Level	Category	Classification of Respondents				χ^2 Value
		Pre test		Post test		
		N	%	N	%	
Inadequate	≤ 50 % Score	70	70.0	0	0.0	147.93*
Moderate	51-75 % Score	30	30.0	23	23.0	
Adequate	> 75 % Score	0	0.0	77	77.0	
Total		**100**	**100.0**	**100**	**100.0**	

*** Significant at 5% level,** **χ^2 (0.05,2df) = 5.991**

Table-12 shows that out of 100 respondents with regards to the Pre test and Post test Knowledge level on Breast self examination, the highest pretest mean percentage score in aspect of types is ,70(70%) are having inadequate knowledge,30(30%) are having moderate

knowledge and no student nurses having adequate knowledge regarding Breast self examination, the highest posttest mean percentage score in aspect of types is ,77(77%)are having adequate knowledge,23(23%) are having moderate knowledge and no student nurses having inadequate knowledge regarding Breast self examination.

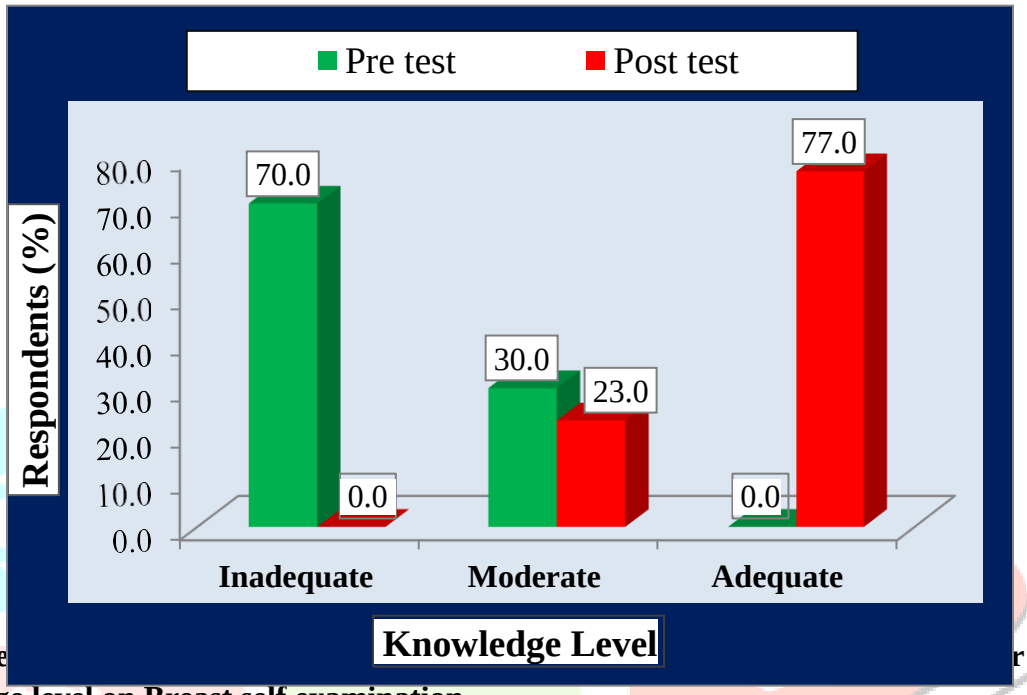


Figure .10: Re r Pre test and Post test Knowledge level on Breast self examination

TABLE – 13

Over all Pre test and Post test Mean Skill scores on Breast self examination

N=100

Aspects	Max. Score	Skill Scores				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	14	4.20	2.15	30.0	15.3	39.84*
Post test	14	11.40	1.17	81.4	8.3	
Enhancement	14	7.20	1.80	51.4	12.9	

*** Significant at 5% level, t (0.05,99df) = 1.96**

Table 13 indicates the overall mean Skill scores of pre-test ,post-test and enhancement scores regarding Breast self examination among student nurses.

The findings reveal that post test mean percentage scores was found higher [mean%=81.4%, SD of 8.3%] when compared with pre-test mean percentage scores value which was 30.0% with SD of 15.3%%. The mean knowledge enhancement scores was 51.4% with SD 12.9%

The statistical paired t implies that the difference in the pre-test and post-test value was found statistically significant at 5%level ($p<0.05$) with a paired t value of 39.84.there exists a statistical significance in the difference of skill scores indicating the positive impact of Nursing interventional package.

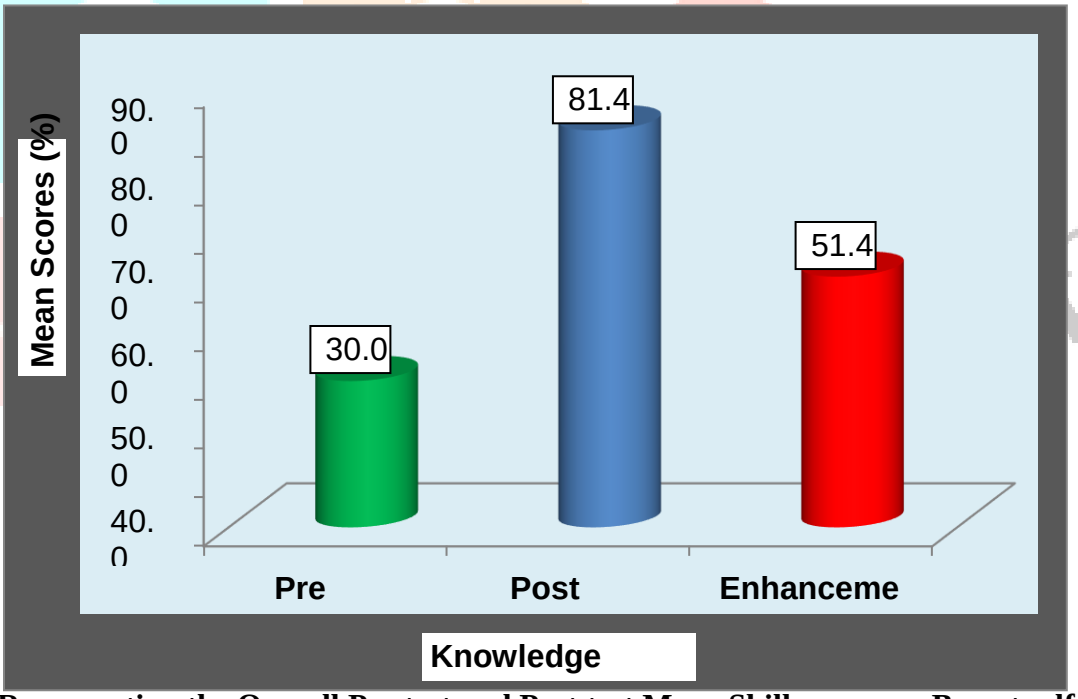


Figure .11: Representing the Overall Pre test and Post test Mean Skill scores on Breast self examination

TABLE – 14

Classification of Respondents on Pre test and Post test Skill level on Breast self examination

Skill Level	Category	Classification of Respondents				χ^2 Value
		Pre test		Post test		
		N	%	N	%	
Inadequate	≤ 50 % Score	80	80.0	0	0.0	154.04*
Moderate	51-75 % Score	20	20.0	27	27.0	
Adequate	> 75 % Score	0	0.0	73	73.0	
Total		**100**	**100.0**	**100**	**100.0**	

*** Significant at 5% level,** **χ^2 (0.05,2df) = 5.991**

Table.14 shows that out of 100 respondents with regards to the highest pretest mean percentage score in aspect of types is ,80(80%)are having inadequate skill,20(20%) are having moderate skill and no student nurses having adequate skill regarding Breast self examination, the highest posttest mean percentage score in aspect of types is ,73(73%)are having adequate kill,27(27%) are having moderate skill and no student nurses having inadequate skill regarding Breast self examination.

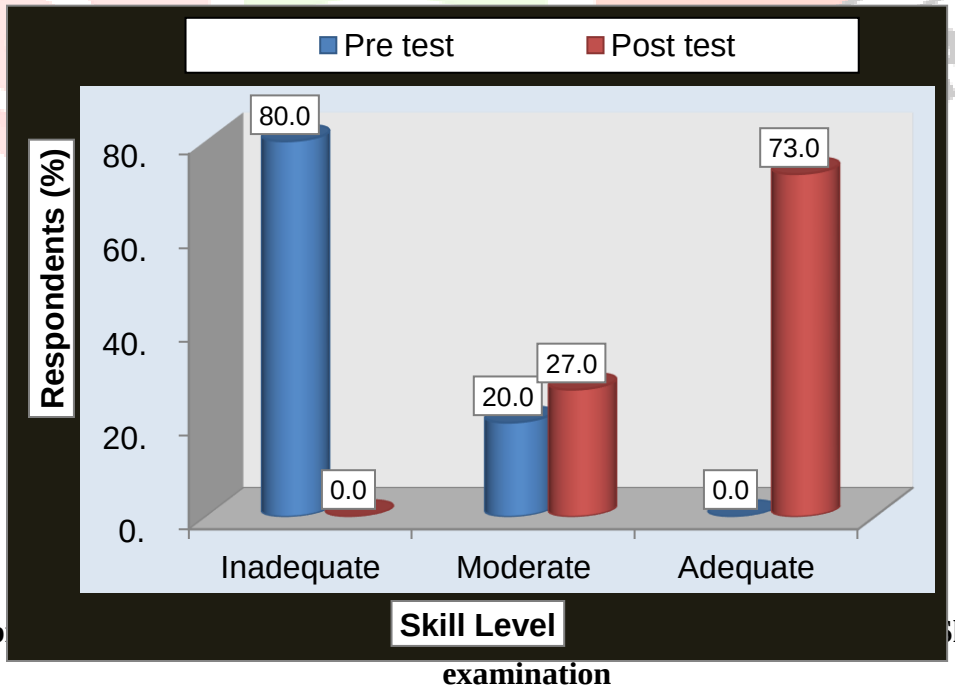


Figure .12: Rep **kill level on Breast self examination**

Figure.12 shows that out of 100 respondents with regards to the highest pretest mean percentage score in aspect of types is ,80(80%)are having inadequate skill,20(20%) are having moderate skill and no student nurses having adequate skill regarding Breast self examination, the highest posttest mean percentage score in aspect of types is ,73(73%)are having adequate kill,27(27%) are having moderate skill and no student nurses having inadequate skill regarding Breast self examination.

SECTION E: Association between Pretest knowledge and selected demographic variables on Breast self examination.

TABLE – 15

n=100

Demographic Variables	Category	Sample	Knowledge Level				χ^2 Value	P Value
			Inadequate		Moderate			
			N	%	N	%		
Age group	17 years	40	26	65.0	14	35.0	1.90 NS	P>0.05 (7.815)
	18 years	21	17	80.9	94	19.1		
	19 years	31	22	91.0	9	9.0		
	>19 years	8	5	62.5	3	37.5		
Age at menarche	12 years	29	22	75.9	7	24.1	6.01*	P<0.05 (5.991)
	13 years	49	29	59.2	20	40.8		
	14 years	22	19	86.4	3	13.6		
Marital status	Single	91	63	69.2	28	30.8	0.29 NS	P>0.05 (3.841)
	Married	9	7	77.8	2	22.2		
Number of girl siblings	No	64	46	71.9	18	28.1	8.00*	P<0.05 (7.815)
	One	14	13	92.9	1	7.1		
	Two	11	6	54.5	5	45.5		
	Three	11	5	45.5	6	54.5		
Frequency of exercise	Regularly	46	31	67.4	15	32.6	0.32 NS	P>0.05 (5.991)
	Weekly twice	24	17	70.8	7	29.2		
	No	30	22	73.3	8	26.7		
Religion	Hindu	67	46	68.7	21	31.3	0.50 NS	P>0.05 (5.991)
	Muslim	21	16	76.2	5	23.8		
	Christian	12	8	66.7	4	33.3		
Place of living	Rural	43	25	58.1	18	41.9	5.05*	P<0.05 (3.841)
	Urban	57	45	78.9	12	21.1		

Type of family	Joint	56	34	60.7	22	39.3	5.23*	P<0.05 (3.841)
	Nuclear	44	36	81.8	8	18.2		
Family history of Breast abnormalities	Yes	80	52	65.0	28	35.0	4.76*	P<0.05 (3.841)
	No	20	18	90.0	2	10.0		
Source of information about breast self-examination	Mass media	53	36	67.9	17	32.1	2.72 NS	P>0.05 (7.815)
	Relatives & Friends	19	14	73.7	5	26.3		
	Health personnel	17	14	82.4	3	17.6		
	Others	11	6	54.5	5	45.5		
Combined		**100**	**70**	**70.0**	**30**	**30.0**		

*** Significant at 5% Level, NS: Non-significant Note: Figures in the parenthesis indicate Table value**

Table-15 shows that out of 100 respondents with regards to the computed Chi- square value for association between pretest knowledge of student nurses regarding Breast self examination is found to be significant for age at menarche and number of girl siblings, place of living, type of family and family history of breast abnormalities, it is not found to be statistically significant at 0.05levels for age, marital status and frequency of exercise, Religion, and source of information about breast self examination. Therefore the findings partially support hypothesis H_2, hence is partially accepted and inferring that the student nurses pre-test level of knowledge regarding Breast self examination is partially associated with their personal variables.

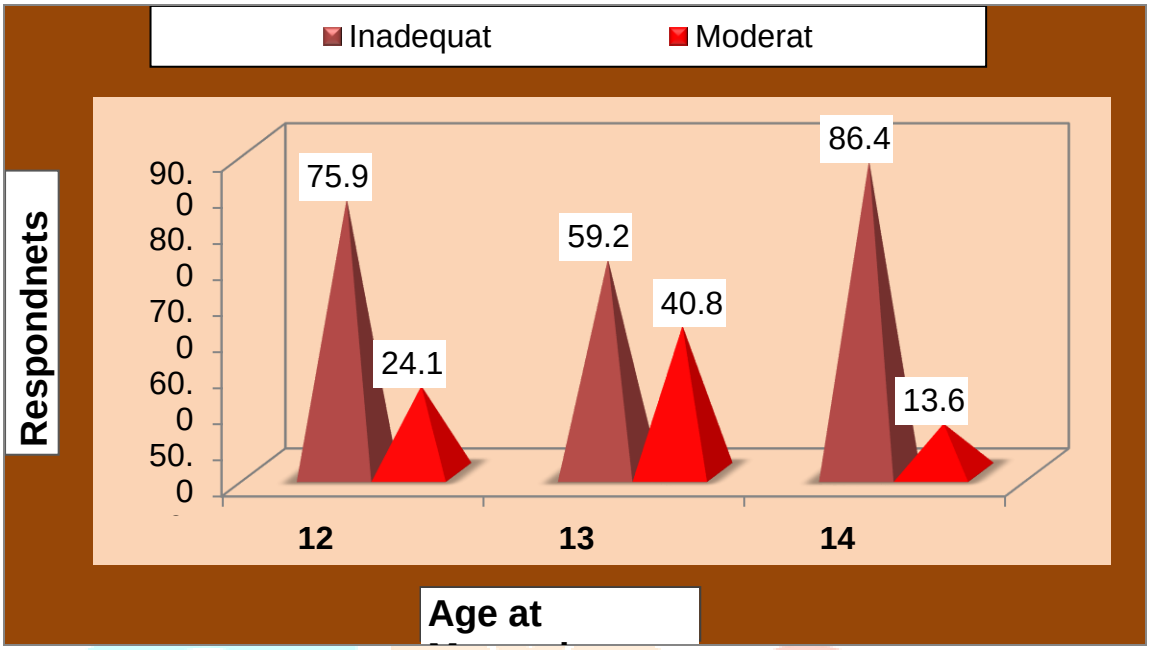


Figure .13: Representing the Association between Age at menarche and Pre test Knowledge level

Figure.13 shows that with regards to the association between Age at menarche and Pre test Knowledge level on Breast self examination is found to be significant.

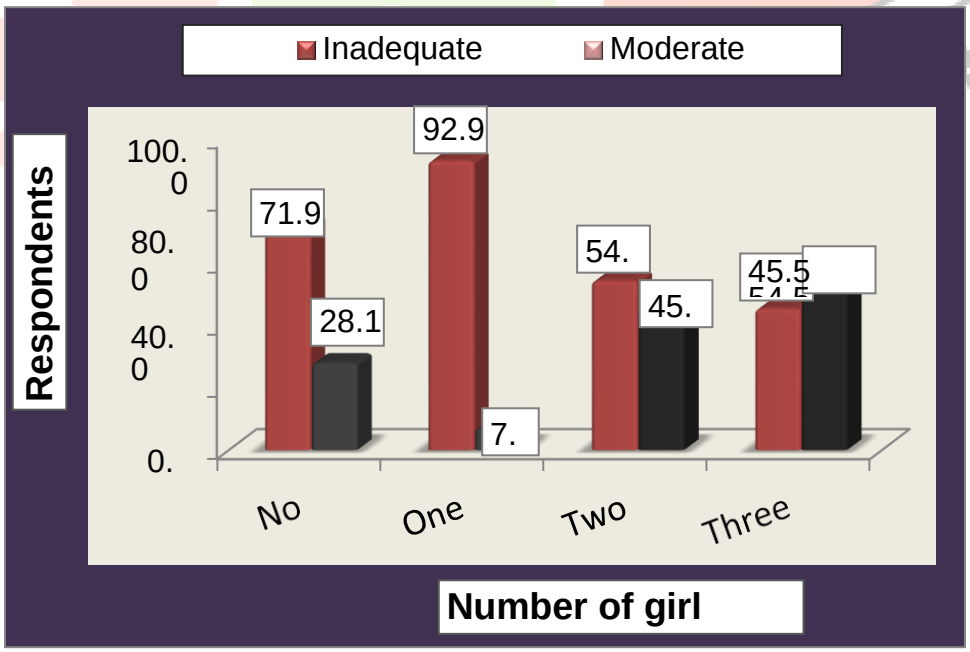


Figure .14: Representing Association between Number of girl siblings and Pre test Knowledge level

Figure.14 shows that with regards to the association between Number of girl siblings and Pre test Knowledge level on Breast self examination is found to be significant

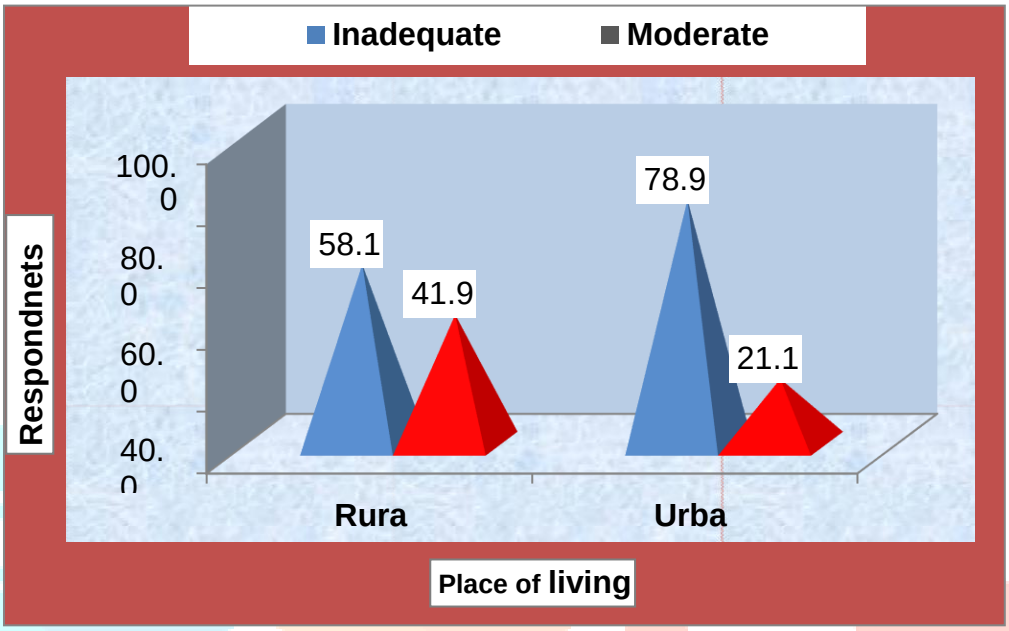


Figure .15: Representing the Association between Place of living and Pre test Knowledge level

Figure .15 shows that with regards to the association between Place of living and Pre test Knowledge level on Breast self examination is found to be significant

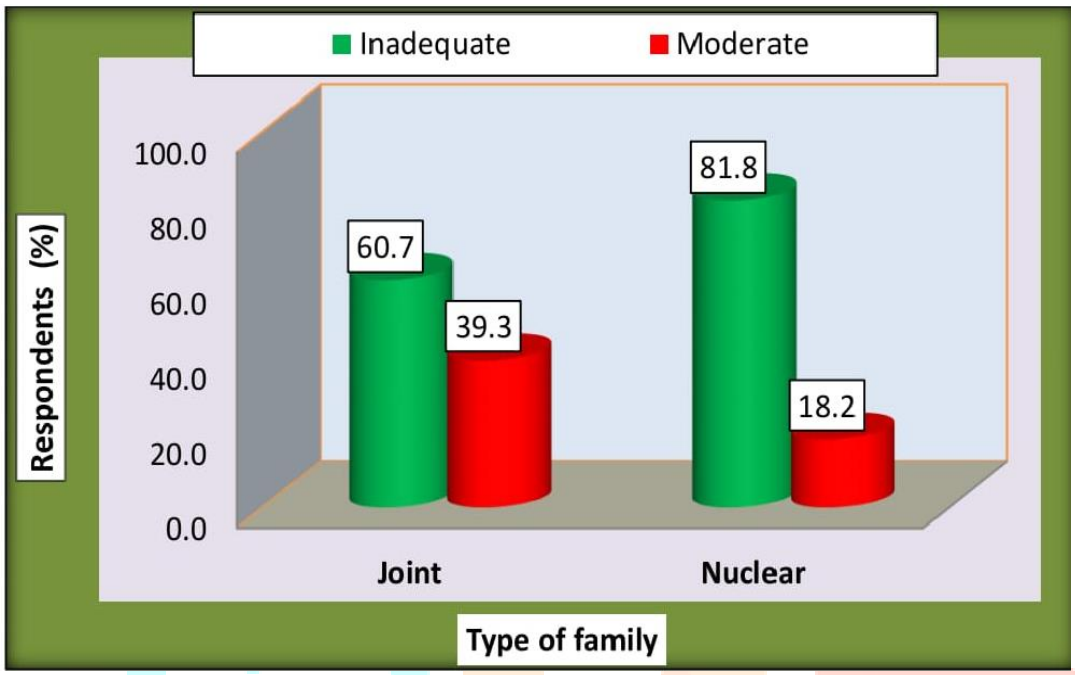


Figure .16: Representing the Association between Type of family and Pre test Knowledge level

Figure .16 shows that with regards to the association between Type of family and Pre test Knowledge level on Breast self examination is found to be significant

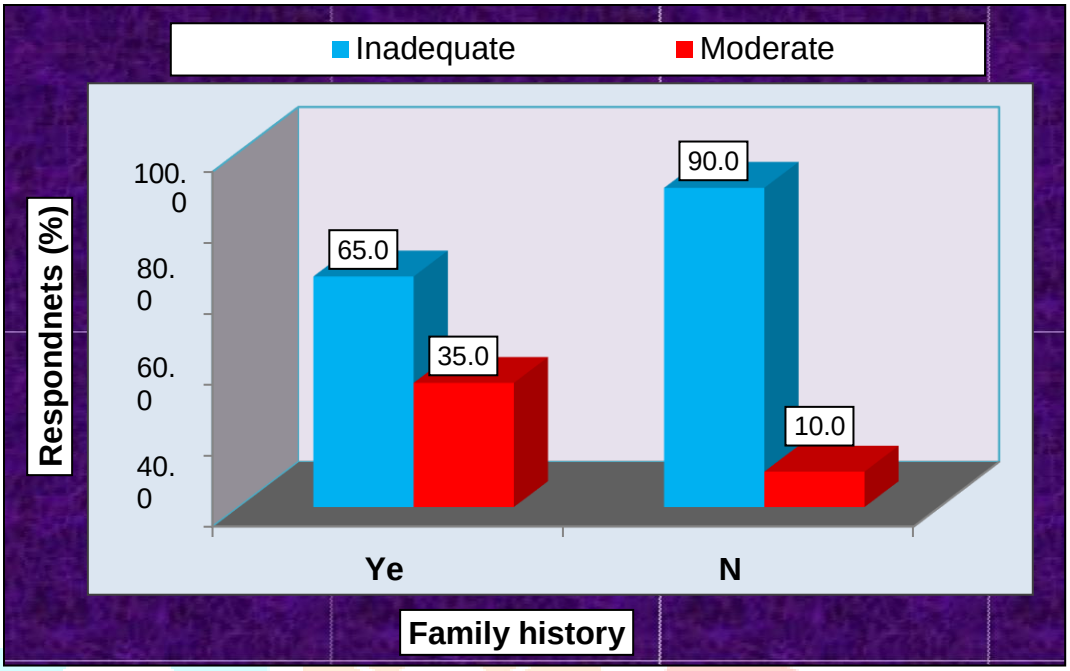


Figure .17: Representing Association between Family history of Breast abnormalities and Pre test Knowledge level

Figure .17 shows that with regards to the association between Family history of Breast abnormalities and Pre test Knowledge level on Breast self examination is found to be significant.

SECTION F: Association between Pre test Skill level and selected demographic variables on Breast self examination

TABLE – 16

n=100

Demographic Variables	Category	Sample	Skill Level				χ^2 Value	P Value
			Inadequate		Moderate			
			N	%	N	%		
Age group	17 years	40	31	77.5	9	22.5	0.92 NS	P>0.05 (7.815)
	18 years	21	16	76.2	5	23.8		
	19 years	31	26	83.9	5	16.1		
	>19 years	8	7	87.5	1	12.5		
Age at menarche	12 years	29	23	79.3	6	20.7	2.26 NS	P>0.05 (5.991)
	13 years	49	37	75.5	12	24.5		
	14 years	22	20	90.9	2	9.1		
Marital status	Single	91	75	82.4	16	17.6	4.69*	P<0.05 (3.841)
	Married	9	5	55.6	4	44.4		
Number of girl siblings	No	64	52	81.3	12	18.8	0.47 NS	P>0.05 (7.815)
	One	14	11	78.6	3	21.4		
	Two	11	9	81.	2	18.2		
	Three	11	8	872.7	3	27.3		
Frequency of exercise	Regularly	46	40	87.0	6	13.0	7.44*	P<0.05 (5.991)
	Weekly twice	24	21	87.5	3	12.5		
	No	30	19	63.3	11	36.7		
Religion	Hindu	67	53	79.1	14	20.9	4.00 NS	P>0.05 (5.991)
	Muslim	21	15	71.4	6	28.6		
	Christian	12	12	100.0	0	0.0		
Place of living	Rural	43	39	90.7	4	9.3	5.40*	P<0.05 (3.841)
	Urban	57	41	71.9	16	28.1		
Type of family	Joint	56	40	71.4	16	28.6	5.54*	P<0.05 (3.841)
	Nuclear	44	40	90.9	4	9.1		
Family history of Breast abnormalities	Yes	80	68	85.0	12	15.0	6.25*	P>0.05 (3.841)
	No	20	12	60.0	8	40.0		
Received information about breast self-examination	Mass media	53	41	77.4	12	22.6	2.85 NS	P>0.05 (7.815)
	Relatives & Friends	19	14	73.7	5	26.3		
	Health personnel	17	16	94.1	1	5.9		
	Others	11	9	81.8	2	18.2		
Combined		**100**	**80**	**80.0**	**20**	**20.0**		

*** Significant at 5% Level, NS: Non-significant Note : Figures in the parenthesis indicate Table value**

Table -16 shows that out of 100 respondents with regards to the computed Chi-square value for association between pretest skill of student nurses regarding Breast self examination is found to be significant for Marital status, Frequency of exercise, Place of living, Type of family and family history of breast abnormalities, it is not found to be statistically significant at 0.05levels for Age, Age at menarche, Number of girl siblings, Religion and Received information about breast self examination. Therefore the findings partially support hypothesis H_2,hence is partially accepted and inferring that the student nurses pre-test level of skill regarding Breast self examination is partially associated with their personal variables.

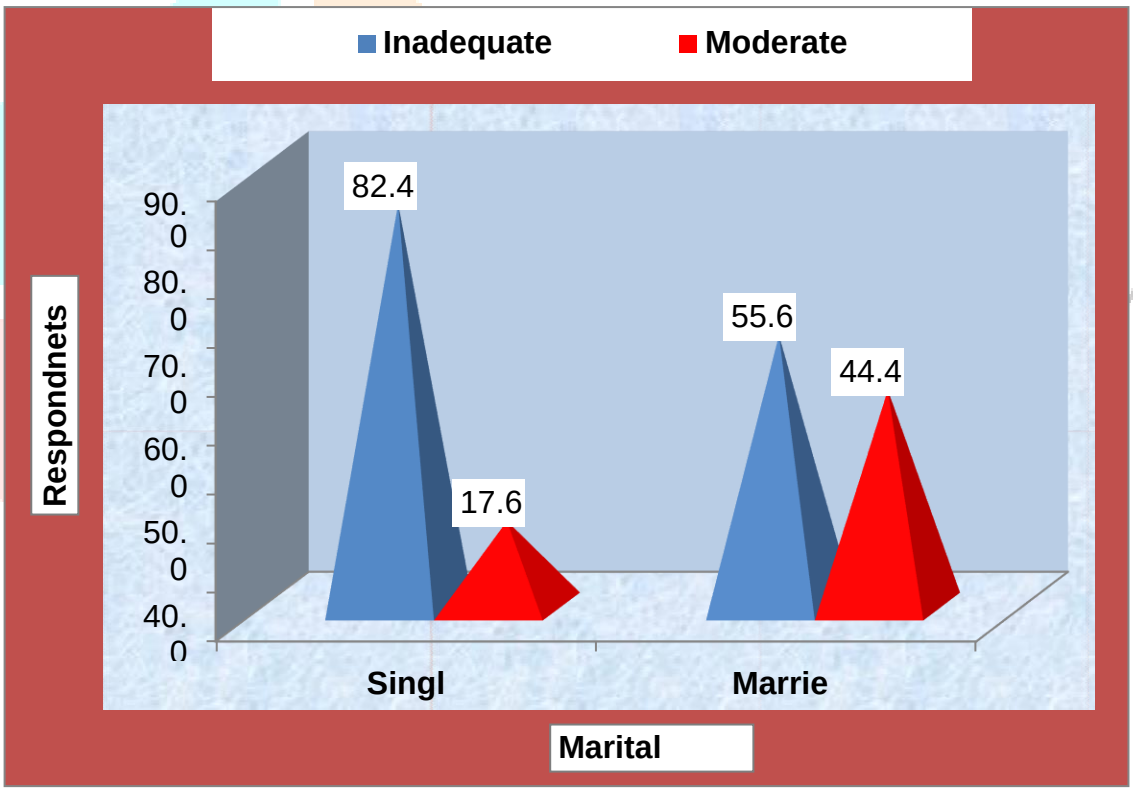


Figure .18: Representing Association between Marital status and Pre test Skill level

Figure .18 shows that with regards to the association between Marital status and Pre test Skill level on Breast self examination is found to be significant.

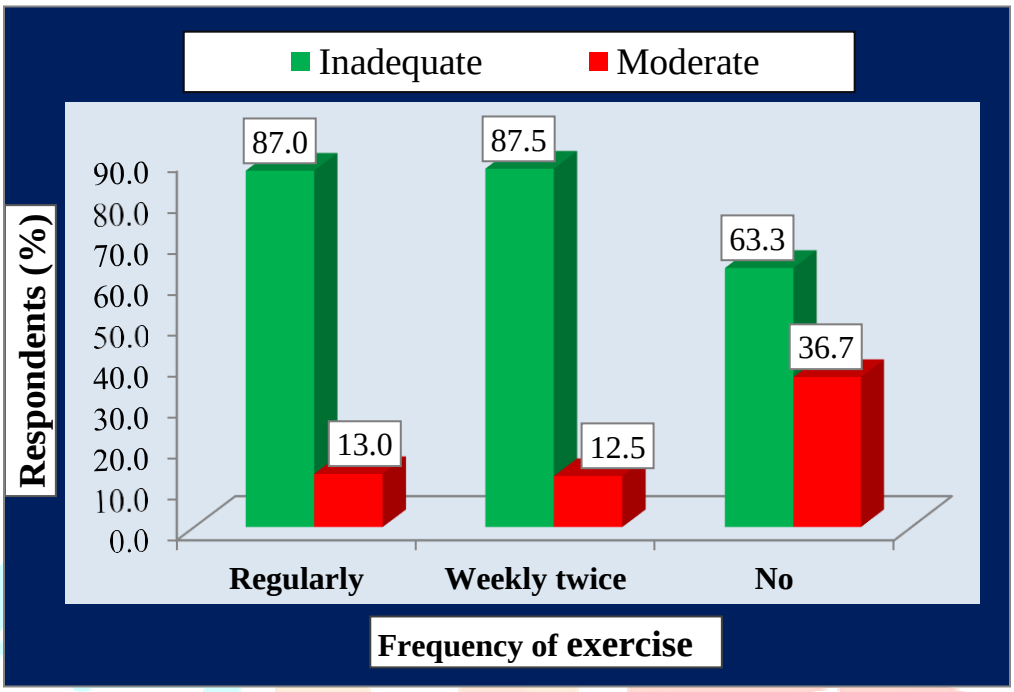


Figure .19: Representing Association between Frequency of exercise and Pre test Skill level

Figure .19 shows that with regards to the association between Frequency of exercise and Pre test Skill level on Breast self examination is found to be significant.

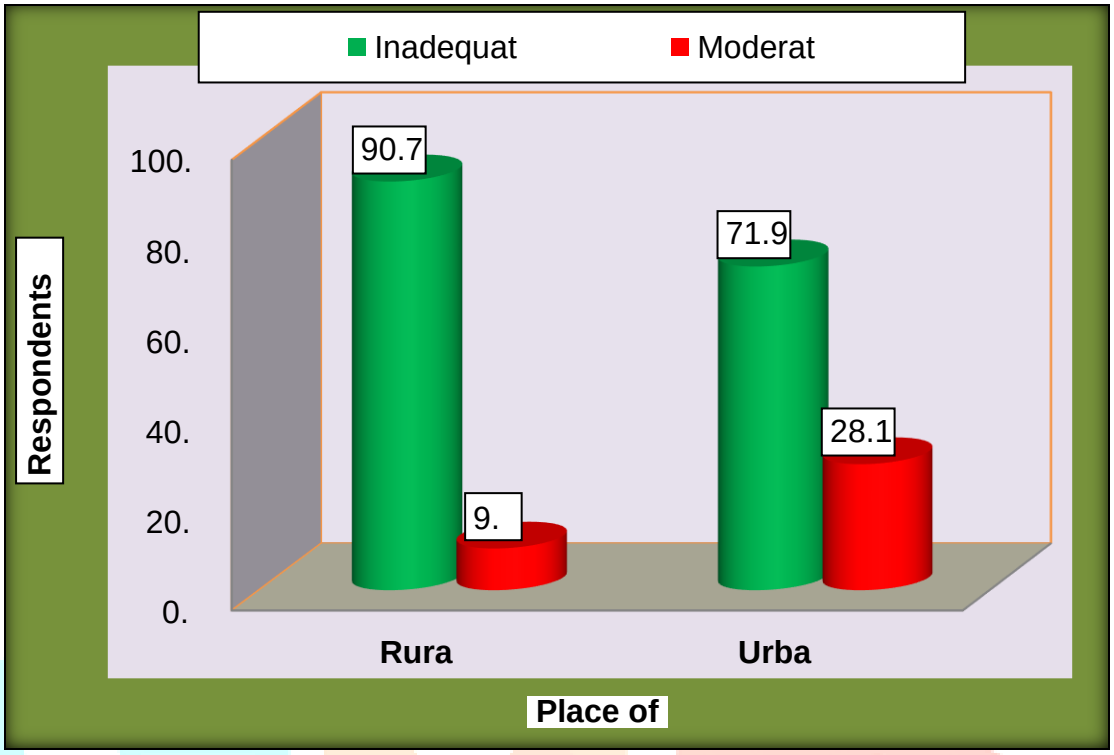


Figure .20: Representing Association between Place of living and Pre test skill level

Figure .20 shows that with regards to the association between Place of living and Pre test Skill level on Breast self examination is found to be significant.

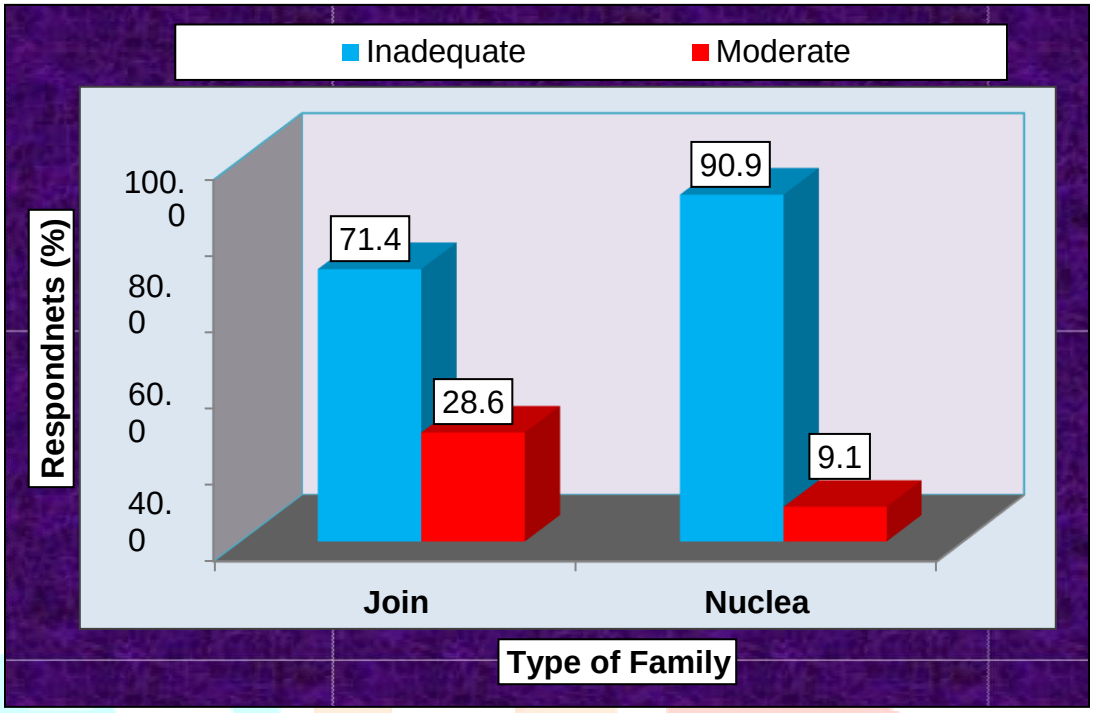


Figure .21: Representing Association between Type of family and Pre test Skill level

Figure .21 shows that with regards to the association between Type of family and Pre test Skill level on Breast self examination is found to be significant.

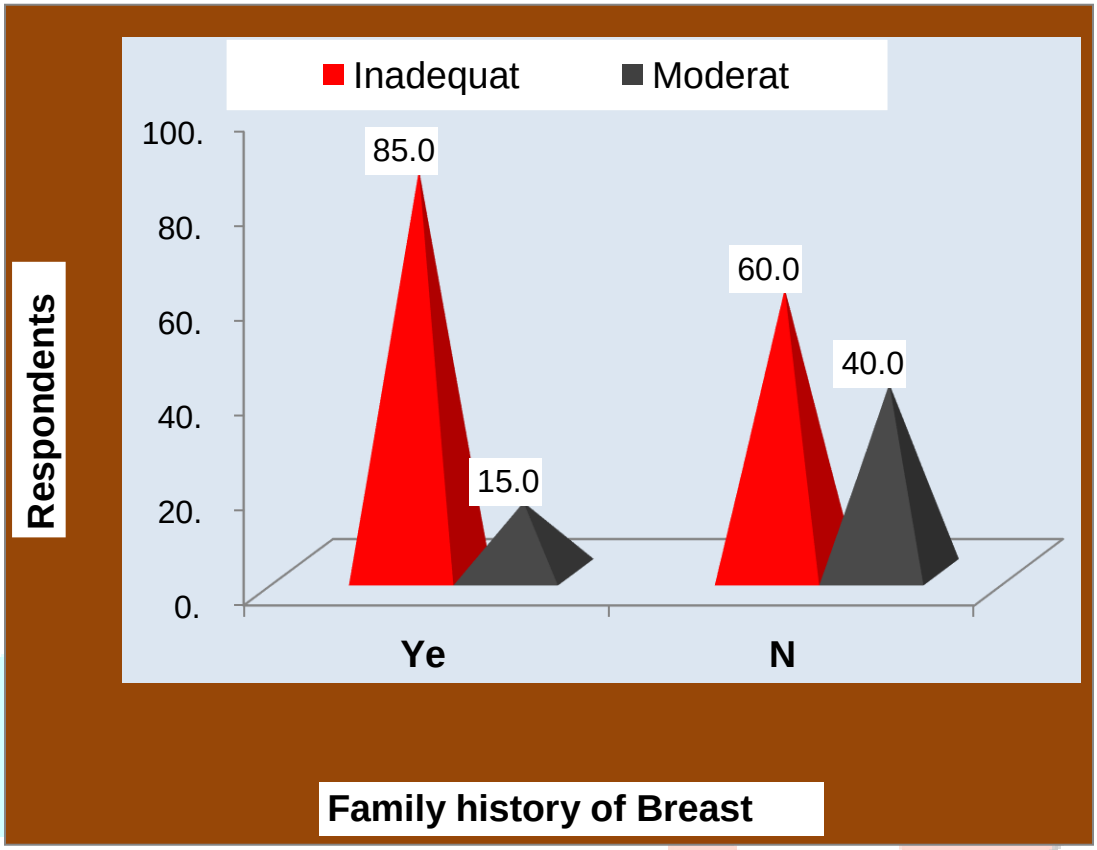


Figure .22: Representing Association between Family history of breast feeding and Pre test Skill level

Figure .22 shows that with regards to the association between Family history of breast feeding and Pre test Skill level on Breast self examination is found to be significant.

6. DISCUSSION

The hallmark of professional behavior is the personal commitment to the ongoing acquisition of new knowledge. In the present study, which was conducted to assess the effectiveness of nursing interventional package on breast self -examination in terms of knowledge and skill among student nurses of selected Nursing Colleges.

A quasi experimental one group pretest and post-test design (O_1 X O_2) was adopted to conduct this study for student nurses in Prajwal and Dhanwantari College of Nursing in Bangalore. The designated population for conducting the study was student nurses of selected nursing colleges, Bangalore. In order to achieve the objectives of the study and research approach was adopted and convenient sampling technique used to select the samples. The 100 samples were selected from the population using convenient sampling method. The study was conducted over a period of 4 weeks from 01-04-2021 to 30-04-2021. The data was collected from 100 student nurses by using structured knowledge questionnaire. The findings of the study has been discuss with reference to objectives and hypothesis based on this the data obtain from the student nurses, with regard to demographic variables {Age group, Age of menarche, Religion, Marital status, Number of girl siblings, Frequency of exercise, Religion, Place of living, Type of family, Source of knowledge}

Objectives of the study:

- ✓ To assess the pretest & post -test knowledge regarding breast self- examination
- ✓ To assess the pre- test & post- test skill regarding breast self -examination
- ✓ To determine the effectiveness of Nursing interventional package on knowledge and skill among student nurses.
- ✓ To determine association between pretest knowledge with selected demographic variables.
- ✓ To determine association between pretest skill with selected demographic variables.

The major findings of the study are discussed under the following sections:

The first objective was to assess the pretest knowledge regarding breast self- examination

The findings of the study shows that out of 100 respondents with regards to their the mean pre-test knowledge scores of respondents on Breast self- examination, the maximum mean percentage score obtained by the respondents is 37.7% in the aspect of anatomy and physiology of breast with standard deviation of 1.90. Mean percentage of breast self -examination is 27.2% with the standard deviation of 3.44.The combined mean percentage score by the respondents is 30.7% with the standard deviation of 4.65.pretest knowledge on Breast self -examination, 70

(70%) were having inadequate knowledge 30(30%) were having moderate knowledge and no student nurses were having adequate knowledge regarding Breast self- examination.

The above finding was supported by the following study:

A cross-sectional study was conducted by administering an online survey designed to assess the knowledge regarding Breast Self-examination amongst Indian women, aged 30 years and above. A validated questionnaire, consisting 35 questions was widely circulated amongst 1000 females throughout India and responses were collected for a duration of 3 weeks, from 2nd, September 2020 to 23rd,September 2020. The knowledge domain score was 22.0 out of a maximum of 30 respectively. Therefore the study suggesting there is need to educate women hence they are having low knowledge about importance of breast self-examination.[39]

The second objective was to assess the posttest knowledge regarding breast self- examination

The findings of the study shows that out of 100 respondents with regards to the mean post-test knowledge scores of respondents on Breast self -examination. The maximum mean percentage score obtained by the respondents is 86.8% in the aspect of Breast self- examination with standard deviation of 1.85. Mean percentage of anatomy and physiology of breast is 85.8% with the standard deviation of 12.3.The combined mean percentage score by the respondents is 86.4% with the standard deviation of 2.71 , hence it is showing that in post -test 77(77%)are having adequate knowledge,23(23%) are having moderate knowledge and no student nurses having inadequate knowledge regarding Breast self -examination.

The above finding was supported by the following study:

A descriptive study was conducted to assess the knowledge regarding breast self- examination among the Nursing students.60 nursing students were selected purposively. Self- administered questionnaire was used to collect information. The collected data were exported into SPSS for analysis. The study was showing that out of 60 nursing students majority of nursing students 48.3 % (29) had good knowledge regarding breast self-examination and among them 41.7 % (25) had average knowledge and only 10 % (6) had below average knowledge regarding breast self-examination. This study concluded that the knowledge of breast self- examination was low even through majority of them have good attitude. The ministry of health is recommended to promote awareness about breast self-examination.[40]

The third objective was to assess the pretest skill regarding breast self -examination

The study findings shows that out of 100 respondents with regards to the mean pre-test skill scores on Breast self examination. The mean skill percentage score obtained by the

respondents is 30% with standard deviation of 2.15., The pretest Skill level on Breast self -examination, 80 (80%) are having inadequate skill, 20(20%) are having moderate skill and no student nurses having adequate skill regarding Breast self -examination.

The above finding was supported by the following study:

This community-based, cross-sectional study was carried out to evaluate the practice of breast self-examination (BSE) among 200womens in rural area of Trichy, Tamil Nadu, India. And a structured interviewer-administered questionnaire used to obtain information on their socio demographic characteristics, awareness on breast cancer, and knowledge, attitude, practice of BSE. Data were entered into MS Excel and analyzed using SPSS version 20.0. Spearman correlation and Chi-square test were used to analyze the association between the variables. The result is showing that only 18% of the females had ever checked their breast and 5% practiced it regularly out of total samples. The level of knowledge and practice of BSE among females are unacceptably low. Therefore the participants are having low skill this study suggesting that efforts should be made to increase level of practice of BSE through health education programs.[44]

Fourth objective was to assess the posttest skill regarding breast self -examination

The findings of the study shows that out of 100 respondents with regards to the mean post-test skill scores on Breast self -examination. The mean skill percentage score obtained by the respondents is 81.4% with standard deviation of 1.17. The post -test skill level on breast self -examination,77(77%)are having adequate skill,23(23%) are having moderate skill and no student nurses having inadequate skill regarding Breast self -examination.

The above finding was supported by the following study:

A cross sectional study was conducted in all colleges of Eritrea. The students were divided into two practical strata as health science and non-health science students. From the strata, 380 participants were selected using systematic random sampling based on probability proportionate to size. Self-administered questionnaire was used to collect the data. Data was analyzed using SPSS statistical package version 20.0. This study found that only 11.7% practiced breast self -examination (BSE). The three main reasons for not practicing were lack of knowledge on how to perform BSE (34%), the belief that there is no problem with their breast (26.4%) and they didn't think they should be examined (12.8%). Media (52.1%) and Health worker (18.3%) were the main sources of information on BSE. In conclusion, the practice level of BSE was found to be increasing after intervention. Therefore, an intensive health education program should be implemented mainly through mass media and at health care facilities.[47]

The fifth objective was to determine the effectiveness of Nursing interventional package on knowledge and skill among student nurses.

The study findings shows that out of 100 respondents with regards to the overall mean knowledge scores of pre-test ,post-test and enhancement scores regarding Breast self- examination among student nurses. The findings reveal that post -test mean percentage scores was found higher [mean%=86.4%, SD of 9.0%] when compared with pre-test mean percentage scores value which was 30.7% with SD of 15.5%%. The mean knowledge enhancement scores was 55.8% with SD 15.4% The statistical paired t implies that the difference in the pre-test and post-test value was found statistically significant at 5%level ($p<0.05$) with a paired t value of 36.23.there exists a statistical significance in the difference of knowledge scores indicating the positive impact of Nursing interventional package.

The above finding was supported by the following study:

A quasi experimental study was conducted to assess the effectiveness of nursing interventional package on breast self -examination in terms of knowledge and skill among teachers of selected schools in Mangalore.30school teachers were selected by using simple random sampling technique, the data was collected by administering structured knowledge questionnaire and an observational checklist on breast self- examination, one group pre-test post- test design was used for the study. After collecting the data, nursing interventional package was administered to the subjects and on 8th day post-test was conducted using the same questionnaire and the observational checklist. The collected data was analyzed using descriptive and inferential statistics. The results is showing that in pre test scores, majority (80%) of the sample had average knowledge, (20%) had good knowledge and none of them had very good knowledge on breast self- examination where as in post test score all of them had very good knowledge on breast self- examination. The skill level of teachers regarding breast examination is showing that in pre- test score, majority(73.33%) of the sample had average level of performance on breast self- examination where as in post -test all of them had good level of performance on breast on breast self- examination. The findings of this study concluded that the nursing interventional package on breast self -examination is effective in improving the knowledge and skill regarding breast self -examination.[53]

The sixth objective was to find out the association between pretest knowledge with selected demographic variables regarding Breast self -examination.

There is significant association between pretest knowledge and selected demographic variables like age at menarche and number of girl siblings, place of living, type of family and family history of breast abnormalities, it is not found to be statistically significant at 0.05levels for age, marital status and frequency of exercise, Religion, and source of information about breast self -examination.

The seventh objective was to find out the association between pretest skill with selected demographic variables regarding Breast self -examination.

There is significant association between pretest skill and selected demographic variables like Marital status, Frequency of exercise, Place of living, Type of family and family history of breast abnormalities, it is not found to be statistically significant at 0.05levels for Age, Age at menarche, Number of girl siblings, Religion and Received information about breast self -examination.

7. CONCLUSION

On the basis of findings of the study the below said conclusion were drawn. It also brings out limitations of study into picture. The implications are given on the various aspects like Nursing education, Nursing practice, Nursing research and Nursing administration and it also gives insight into future studies.

- The knowledge of student nurses of nursing colleges regarding breast self -examination was inadequate when assessed in pre-test stage, which was improved to adequate knowledge and skill during the post-test stage.
- NIP is an effective method in improving knowledge of student nurses regarding breast self- examination. The significant difference between the pre-test and post-test knowledge and skill scores was demonstrated by using "t" test. The analysis of mean, median and SD of the knowledge scores in pre-test and post-test revealed that the mean pre-test knowledge was 9.20(30.7%) whereas post -test mean score was 25.93(86%).this shows high mean difference (16.73) in the effectiveness of NIP. Overall area wise findings revealed that the effectiveness of NIP is more when compare to the pre-test knowledge.

- The analysis of mean, median and SD of the skill scores in pre-test and post-test revealed that the mean pre-test skill was 4.20(30.0%) whereas post-test mean score was 11.40(81.4%). This shows high mean difference (7.20) in the effectiveness of NIP. Overall area wise findings revealed that the effectiveness of NIP is more when compare to the pre-test skill.

- This study proved that there is significant association between the pre-test knowledge scores and demographic variables such as age at menarche, number of girl siblings, place of living, type of family and family history of breast abnormalities. However, there is no significant association between Age, Marital status, Frequency of exercise, Religion, and Received information about Breast self-examination, which is evident from analysis.

- This study proved that there is significant association between the pre-test skill scores and demographic variables such as Marital status, Frequency of exercise, Place of living, Type of family and family history of breast abnormalities, However there is no

significant association between Age, Age at menarche, Number of girl siblings, Religion and Received information about breast self -examination, which is evident from analysis.

NURSING IMPLICATIONS:

The findings of the study have implications on the field of Nursing education, Nursing practice, Nursing research

and Nursing administration.

NURSING EDUCATION:

The study proved the increase in knowledge of student nurse regarding breast self -examination after Nursing interventional package. To impact this knowledge and skill, the nursing personnel need to be equipped with adequate knowledge and skill regarding breast self -examination.Nursing personnel should be given in-service education to update their knowledge and abilities in identifying the learning needs of student nurse towards breast self -examination.

NURSING PRACTICE:

The findings of the study indicate that the nurses should be equipped with updated knowledge on breast abnormalities so that they would be able to impact appropriate knowledge to the community.

Nurses as women competent professionals have the responsibility to promote the preventive care regarding women's health in the society. She should encourage and teach the women regarding preventive aspects of breast abnormalities such as breast self -examination through appropriate health education methods as used by the researcher in this study.

NURSING RESEARCH:

Research is systemic attempt to obtain answers to meaningful questions about phenomena or event through the application of scientific procedures. It is an objective, impartial, empirical and logical analysis and recording of controlled observations that may lead to the development of generalizations, principles or theories, resulting to some extent in prediction and control of events that may be consequences of or cause of specific phenomena.

The study findings would help to expand the scientific body of knowledge upon which further researches can be conducted. The large scale of studies can be conducted by following various methods of research.

- The study will be a motivation for budding researchers to conduct similar studies on a range scale.
- The study will be a reference for the research scholars.
- More researches can be conducted by the researchers using experimental study.

NURSING ADMINISTRATION:

Nurse as an administrator has a role in planning the policies for imparting information to the target population. Nurse administrators need to organize nursing education program for the nursing personnel and motivate them to conduct intervention program towards breast self -examination among women.

Nursing administrators can plan various in-service training programs to the students, planning and organizing such work requires sufficient team spirit man power, money, material, method, time and good will to conduct successful intervention program. Nurse administrators can be able to take the initiative in imparting information through different methods.

DELIMITATIONS:

This study is limited to

- Sample size limited to 100 female student nurses
- Study is delimited for 4 weeks

RECOMMENDATIONS:

On the basis of the findings of the study, the following recommendations are stated:

- A similar study can be replicated on larger sample to generalize the findings.
- A similar study can be undertaken with a control group design.

- A comparative study can be done between the effects of nursing interventional package verses structured teaching program.
- A similar study can be conducted by selecting a different sample.
- A similar study can be conducted in rural or urban areas.

8.SUMMARY

This chapter presents the summary of entire study. The purpose of the study is to assess the effectiveness of nursing interventional package on breast self- examination in terms of knowledge and skill among student nurses of selected nursing colleges in Bangalore, **with the following objectives:**

1. To assess the existing level of knowledge and skill of student nurses on breast self -examination.
2. To determine the effectiveness of nursing interventional package on breast self -examination.
3. To find out the association of pre-test knowledge level of student nurses with selected demographic variables.
4. To find out the association of pre-test skill level of student nurses with selected demographic variables.

The conceptual framework adopted for this study was based on Becker's Health belief model. A quasi experimental study design was used to the effectiveness of nursing interventional package. Simple random sampling technique was used to collect 100 samples based upon their inclusion criteria. Data was collected using a demographic proforma and structured knowledge questionnaire consisting of 30 questions and also using a BSE observational checklist that consisted of 14 questions. The tool and the nursing interventional package (NIP) was validated 7 experts. Reliability of the structured knowledge questionnaire was established using Cronbach's alpha (α.=0.808) and the observational checklist was r=0.96. Pilot study was conducted on 10 selected student nurses. The main study was conducted among 100 randomly selected female student nurses from 01/04/2021 to 30/04/2021. Following the pre- test, nursing interventional package was administered and post–test was conducted on the 8th day of administration of nursing interventional package.

Major Findings of the study:

Among 100 samples Majority 40 (40%) of the samples belong to the age of 17 years, 31(31%) belongs to the age group19years, 21(21%) belongs to the age group of 18years and remaining 8(8%) belongs to the age group of >19years. The findings also revealed that Most 49(49%) of

the samples were responded to the age of 13years and 29(29%) were responded to at the age of 12years and remaining 22 (22%) were responded to the age of 14years.

Most of samples, 91(91%) of them are married only 9(9%) of the samples are single. Majority of the samples, 64(64%) are not having any girls siblings but 14(14%) were having 1 girl siblings and 11 (11%)

are having two girl siblings and 11(11%) are having three siblings. Majority 46 (46%) of the samples were practicing exercises regularly and only 24(24%) were doing exercises in weekly twice times, and 30(30%) were not doing any exercises.

Highest 67(67%) of the samples were belonged to Hindu religion, 21 (21%) were belonged to Muslim and remaining 12 (12%) were belonged to Christian religion. Majority 57(57%) of the samples were belonged from urban area, and only 43(43%) were belonged from rural area. Majority 56(56%) of the samples were belonged from joint family, and 44(44%) were belonged from nuclear family. Highest percentage 80(80%) of the samples were having history of breast abnormalities, and 20(20%) were not having any history of breast abnormalities**.** Most of them 53(53%) got information regarding breast self- examination from mass media, 19(19%) of them are of the samples are obtaining information from relatives & friends, 17(17%) of the samples are getting information from health personnel, and 11(11%) of them were having information from other source.

The knowledge of the student nurses regarding breast self -examination showed that in pre-test, 70 (70%) of the sample had inadequate knowledge, 30(30%) were having moderate knowledge and no student nurses had adequate knowledge regarding Breast self- examination. And in post- test, 77(77%) were having adequate knowledge, 23(23%) were having moderate knowledge and no student nurses having inadequate knowledge regarding Breast self -examination. The level of pre-test skill scores regarding breast self -examination was assessed and showed that, in pretest, 80(80%) were having inadequate skill, 20(20%) were having moderate skill and no student nurses having adequate skill regarding Breast self -examination. Where as in post-test skill scores regarding breast self- examination was showed that, 77(77%) were having adequate skill, 23(23%) were having moderate skill and no student nurses having inadequate skill regarding Breast self -examination. The researcher felt that the mean post-test knowledge scores (25.93±2.71) was significantly higher than the mean pre –test scores (9.20±4.6), t (0.05,99df) = 1.96. The mean post-test skill scores (11.40 ±1.17) was also significantly higher than the mean pre-test scores (4.20±2.15), t (0.05,99df) = 1.96 . Significant difference between knowledge and skill scores of student nurses was also found after the administration of nursing interventional package.

In all the areas, the mean post-test knowledge score was higher than the mean pre-test knowledge scores. The mean percentage of pre-test scores was higher (37.7) in the area of anatomy and physiology of breast and lower (27.2) in the area of breast self-examination. Mean percentage of post-test score was maximum (86.8) in the area of breast self- examination and lowest in (85.8) in the area of anatomy and physiology of breast. The mean post-test skill score was higher than pre-test skill score in all the areas. The mean percentage of post-test score was highest (11.40 ±1.17) and the mean percentage of pre–test score was lowest (4.20±2.15).

The study was found that the post-test knowledge and skill scores was found to be significant for age at

menarche and number of girl siblings, place of living, type of family and family history of breast abnormalities and it is not found to be statistically significant at 0.05levels for age, marital status, frequency of exercise for Religion, and received information about breast self -examination. Therefore the findings partially support hypothesis H_2, hence is partially accepted and inferring that the student nurses pre-test level of knowledge regarding Breast self- examination is partially associated with their personal variables.

The findings of the study concluded that the student nurses lacked adequate knowledge and skill regarding breast self-examination and the nursing interventional package (NIP) administered by the researcher helped them to improve the knowledge and skill on breast self- examination. The effectiveness of NIP was tested in terms of gain in knowledge and skill and the findings showed that it was statistically significant at 0.05 level. The findings of the study concluded that the nursing interventional package was effective in improving the knowledge and skill of the student nurses regardless of their any personal characteristics. All the respondents had a gain in knowledge and skill compared to pre-test knowledge scores.

Conclusion:

Overall experience of conducting this study was gratifying and enriching. The respondents of the study were happy, clarified their doubts and satisfied with the information they received. For the investigator the study gave knowledge, skill and a new learning experience.

The study brought out the present situation of need for a nursing interventional package regarding breast self -examination among student nurses. All health professionals are responsible for providing a comprehensive and holistic care to improve the knowledge and skill regarding preventive aspects of breast diseases such as breast self- examination.

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"Gratitude can never be expressed in words, but this is only the deep appreciation, Which makes the words to flow from one's inner heart ."

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PHOTOS TAKEN DURING DATA COLLECTION