

To Assess the Knowledge among Adolescent Girls Regarding Breast Cancer: Descriptive Study

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ABSTRACT

Aim:- The study was carried out to assess the knowledge regarding breast cancer among adolescent school girls.

Background:- Cancer affects everyone the young and the old, rich and poor, women and children. Breast cancer is the most commonly occurring cancer in women, comprising almost one third of all malignancies in females. It is the second leading cause of cancer deaths in women and poses a global public health concern. There is an increased burden of breast cancer in both developed and developing countries. Globally, over one million breast cancer cases are diagnosed annually. It is estimated that about half (60%) of breast cancer deaths occur in economically developing countries. Therefore, the purpose of this study was to assess girls' knowledge regarding breast cancer and to provide information booklet regarding steps involved in examining the breast which will enable for early detection of breast lesion and to reduce the mortality rate.

Methodology:- A descriptive research design was used to conduct the present study using convenient sampling technique. Structured knowledge questionnaire regarding breast cancer was used to collect data from 40 adolescent girls. Analysis of the data was done by using descriptive and inferential statistics.

Results:- The study revealed that 45% of adolescent girls have average knowledge and 45% of adolescent girls have poor knowledge and only a few (10%) adolescent girls have good knowledge regarding breast cancer. However, this difference was statistically non significant as ($p>0.05$). Association of knowledge regarding breast cancer was statistically tested and found to be significant with age, type of family, family's monthly income and source of health information ($p<0.05$).

Conclusion:- Thus, the study concluded that most of the adolescent girls have average knowledge regarding breast cancer.

Key words:- Study, Knowledge, Adolescent girls, Breast cancer.

INTRODUCTION

Breast cancer is a malignant neoplasm mostly affecting women all over the world. Breast cancer is a type of cancer originating from breast tissue, most commonly from the inner lining of milk ducts or the lobules that supply the ducts with milk. Cancer originating from ducts is known as ductal carcinomas, while those originating from lobules are known as lobular carcinomas. ^[1] Breast cancer occurs

in humans and other mammals. While the overwhelming majority of human cases in women, but there is 1% incidence of male breast cancer reported in Brazil. ^[2]

Over 1, 00,000 new breast cancer patients are estimated annually in India. ^[3] Cancer prevalence is estimated around 2.5 million with over 0.8 million new cases and 0.5 million death occurs every year. ^[4] In 2017, the Population-based Cancer Registry (PBCR) of Chandigarh concluded that at 35

per one lakh women, the prevalence of breast cancer in the city is the highest in the country. This annual registry is maintained by PGIMER and Tata Memorial Centre, Mumbai. The department of general surgery at PGIMER performs over 600 breast cancer surgeries a year, and an equal number is referred to radiotherapy department from other hospitals for radiation.

Asha Jyoti, a mobile van with a mammography unit that scans women for breast cancer besides conducting video colposcopy for cervical cancer and Dexa scan to check osteoporosis, is helping thousands of city women by detecting cancer at an early stage. The van functions four days a week from 9am to 2pm. It is stationed at the Sector 45 Civil Hospital on Monday and Wednesday, and parked outside Sector 38 Gurudwara on Thursday and Friday.^[5]

In India, the trends show a mixed incidence pattern with breast cancer being second to cancer of the cervix in rural areas. The common age group affected in women is above 30years of age, the mean and median age being 60 and 61years respectively.^[6] There is high mortality due to increasing age, late stage diagnosis as patient usually present at an advanced stage, due to lack of awareness and non-existent treatment programs and the risk of cancer treatment increases with age.^[7] Early detection through Breast Self Examination (BSE) and prompt treatment offer, the greatest chance of long term survival.^[8]

The most suggested method states that the adolescent girl is advised to stand in front of the mirror with the torso exposed to the view. She looks in the mirror for visual signs of dimpling, swelling, or redness on or near the breast. She palpates the breast with pads of the finger to feel for lumps or soreness. It covers the entire breast including arm pit. Finally, it is advised to squeeze the nipple for any abnormal discharge. Various pneumatic devices are used in teaching breast self examination which include “7p” 10- position, perimeter, palpation, pressure, pattern, practice and

planning, what to do if a change is found in a breast tissue.^[8]

For premenopausal women, most methods suggest that self examination be performed at the same stage of the women’s menstrual cycle because the normal hormone fluctuations can cause changes in the breast. The most commonly recommended time is just after the end of menstruation, because the breast are likely to be swollen and tender at this time. Women who are postmenopausal or have irregular cycles might do a self exam once a month regardless of their menstrual cycle.^[9]

A correctly performed breast self examination takes 7 to 10 minutes. Through one-on -one education that is repeated at regular intervals- monthly reminders and encouraged by health professional enhanced the knowledge of female gender, to live the life effectively.^[10] So the study focuses on improving the knowledge and attitude of adolescent girls on breast examination and to provide information booklet regarding steps involved in examining the breast which will enable for early detection of breast lesion and to reduce the mortality rate.

OBJECTIVES

1. To assess the knowledge regarding breast cancer among adolescent girls.
2. To correlate the association between knowledge levels of adolescent girls regarding breast cancer with selected demographic variables.
3. To disseminate information booklet regarding Breast Self Examination among adolescent girls.

OPERATIONAL DEFINITIONS

1. **Study:** To acquire information from adolescent girls on knowledge regarding breast cancer.
2. **Knowledge:** It refers to the awareness of adolescent girls on breast self examination.
3. **Adolescent girls:** It refers to the adolescent girls between the age group from 18 – 21years.

4. **Breast cancer:** It refers to the most common cancer among women. Symptoms include a lump or thickening of the breast, and changes to the skin or the nipple.

RESEARCH APPROACH

The research approach adopted in the present study was non- experimental approach (descriptive), which was considered as appropriate because this study aims to assess the level of knowledge regarding breast cancer among adolescent girls.

RESEARCH DESIGN

The research design is the master plan specifying the method and procedure for collecting and analysing the needed information in a research study. The selection of design depends upon the objectives of the study and variables to be studied. Research design selected for the present study was Non-Experimental Research Design.

VARIABLES IN THE STUDY

Attributed variables: An attribute variable could be a variable that is a fixed attribute. These variables cannot be changed or manipulated by the researcher as they are an inherent part of a person or object. In this study, attributed variables refers to age, education, type of family, monthly income of family, religion, source of information.

RESEARCH SETTINGS

Setting is the physical location and condition in which data collection takes place in a study. The present study was conducted in the selected institute of District Sangrur, Punjab. The researcher selected this setting for the following reason such as availability of sample and economic feasibility for conducting the study.

ASSUMPTION

1. Most of the adolescent girls will have inadequate knowledge regarding breast cancer.
2. Adolescent girls will be interested and willing to participate in the study.

3. Willing to give free and frank response during data collection procedure.

DELIMITATIONS

The study will be limited to the individual-

1. The age group limits to 18-21 years of adolescent girls.
2. The study is conducted in selected institute of District Sangrur, Punjab.
3. Adolescent girls present during the period of data collection.
4. The study is limited to only 4-6weeks only.

POPULATION

The term population refers to the entire set of individual or objects that posses specific characteristics the researcher is interested in studying. In this study, comprises of adolescent girls with the age group 18-21 years undergoing in selected institute of District Sangrur, Punjab.

SAMPLE

Sample size: Sample is a subject of the population selected to participate in a research study. In the present study, the sample consists of 40 adolescent girls were considered as samples for the study.

Sampling technique: Sampling defines the process of selecting a group of people or other elements with which to conduct a study. The sampling technique used in this study was convenience sampling technique. The data collected from the 40 samples who met the inclusion criteria from adolescent girls.

SAMPLING CRITERIA

INCLUSION CRITERIA:

1. Assess knowledge regarding breast cancer among adolescent girls.
2. Adolescent girls between the age group of 18-21years.
3. Adolescent girls who can read and write English and Punjabi.

EXCLUSIVE CRITERIA:

1. Adolescent girls who are not cooperative.

2. Adolescent girls who are not available during the period of data collection.

DESCRIPTION OF TOOL

Research instruments or research tools are the devices used to collect data. The tools facilitate the observation and measurement of variables. The following tools are used for collecting data in this study. The tools has two parts

Tool 1: Socio- demographic profile- It consisted of 6 items, which includes with age, religion, educational status, type of family, family's monthly income, source of health information.

Tool 2: Structured questionnaire- To assess the knowledge regarding breast cancer among adolescent girls. It consisted of 20 structured questions regarding breast cancer.

VALIDITY OF TOOL

Validity refers to which an instrument what it is intended to measure. Content validity is the extent to which the method of measurement includes all the major elements relevant to the concept being measured. The Demographic Performa statement of problem, objectives, hypothesis and operational definitions and criteria check list for validation of the tool were submitted to 7 experts to establish to content validity. The experts were requested to give their opinion regarding relevance, appropriateness and usefulness of the items of the tool. Tool was collected from all the experts and modification was made as per the suggestion.

PILOT STUY

Pilot study helps to assess the data collection plans, identify the inadequacies of the plan and make due modification as requiring, find out the feasibility of conducting the present study and to determine the methods of statistical analysis. The pilot study was conducted on 01th August 2018 to 03th August the permission has been taken from the Principal of selected institute of District Sangrur, Punjab. The tool was administered

to adolescent girls after obtaining their consent. At the end of the study respondents were thanked for their cooperation. The research design and the tools were found to be appropriate, clear and feasible. A pilot study has been conducted among 4 adolescent girls selected institute of District Sangrur, Punjab.

RELIABILITY OF THE TOOL:

Reliability of the research instrument is defined as the extent to which the instrument yields the same results on repeated measures. If is then concerned with how consistently the measurement technique measures the topic of interest. Reliability of the tool was established by the use of 4 samples by means of split half method. Reliability of back inventory was established by CRONBACH's ALPHA reliability co efficient which was 0.76. It indicates that tool is reliable.

DATA COLLECTION PROCEDURE

Data collection process is the gathering of information to address a research problem. To conduct study in institute, formal written permission was obtained from the Principal of institute. Data was collected from 06th August 2018 to 11 August 2018. The investigator before collecting the data explained to fill the socio- demographic Performa and structure questionnaire.

DATA ANALYSIS

Analysis is the method of organizing, shorting and structuring data in such a way that researcher can be answered or meaningful inferences can be drawn. This chapter deals with the analysis and interpretation of data collected from the 40 sample. The collected data was coded, entered in master sheet, compiling and categorizing the information to summarize and organize the data meaningfully. Analysis and interpretation of data are based on the objectives of the study are presented. It consists of both descriptive and inferential statistics. Frequencies, percentage, mean,

standard Deviation, “t”-test, Anova statistical formulas are used in this study.

RESULTS

Table 1: Distribution of adolescent girls as per their socio-demographic profile. N = 40

Socio demographic profile	f	Percentage (%)
Age (in years) #		
18	16	40
19	11	27.5
20	10	25
21	03	7.5
Religion		
Hindu	07	17.5
Christian	01	2.5
Muslim	02	05
Sikh	30	75
Educational Status		
B.Sc. Ist Year	20	50
GNM Ist Year	05	12.5
GNM IInd Year	15	37.5
Family's Monthly Income		
Less than 10,000/-	15	37.5
Rs 10,000 – 20,000/-	10	25
More than 20,000/-	15	37.5
Source of health information		
Friends	04	10
Health Professionals	08	20
Mass Media	05	12.5
Classroom Teaching	23	57.5

Mean age ± SD = 19.5 ± 1.118

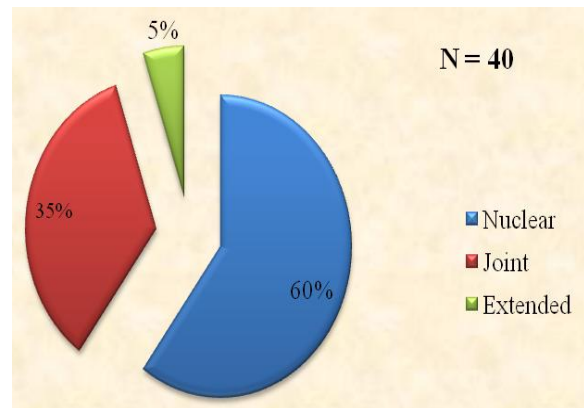
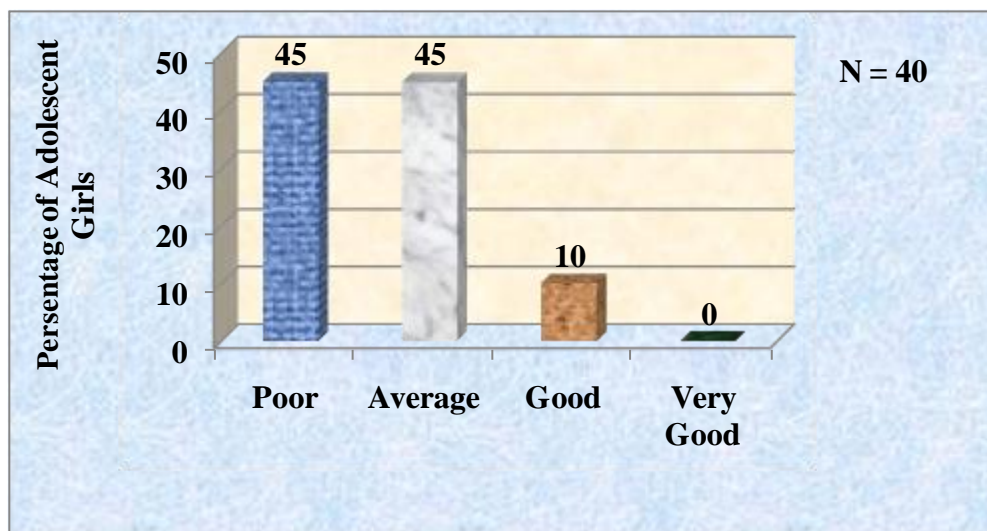


Fig - 1 Pie graph showing percentage distribution of adolescent girls as per their type of family.

Table 2: Distribution of adolescent girls according to their level of knowledge. N = 40

Level of Knowledge	f	Percentage (%)
Poor knowledge	18	45
Average	18	45
Good	04	10
Very good	00	00



Maximum score= 20

Mean ± SD= 7.900 ± 3.5286

Minimum score=05

Fig - 2 bar graph showing the percentage of the knowledge score regarding breast cancer among adolescent girls.

Table 3: Association of knowledge of adolescent girls regarding breast cancer with selected socio-demographic variables. N=40

Socio-demographic variables	n	Knowledge score	
		Mean ± SD	F/t p value
Age (in years)			
18	16	5.6875 ± 3.17739	5.631 00.003*
19	11	9.0000 ± 2.0000	
20	10	10.4000 ± 3.80643	
21	03	7.3333 ± 2.08167	
Religion			00.428 00.734 ^{NS}
Hindu	07	6.7143 ± 2.81154	
Christian	01	9.0000 ± 0.000	
Muslim	02	9.5000 ± 0.70711	
Sikh	30	8.0333 ± 3.81000	

Educational Status			
B.Sc. Ist Year	20	1.7000 ± 0.97872	02.299
GNM Ist Year	05	2.0000 ± 0.70711	00.115 ^{NS}
GNM IInd Year	15	2.4.000 ± 0.98561	
Type of Family			
Nuclear	24	6.8333 ± 3.7027	05.094
Joint	14	8.9286 ± 2.2348	00.011*
Extended	2	13.5000 ± 0.70711	
Family's Monthly Income			
Less than 10,000/-	15	5.8000 ± 2.59670	5.291
Rs 10,000 – 20,000/-	10	8.8000 ± 2.5733	0.010*
More than 20,000/-	15	9.4000 ± 3.9964	
Source of health information			
Friends	04	7.2500 ± 2.6299	05.919
Health Professionals	08	5.7500 ± 2.6049	00.002*
Mass Media	05	4.4000 ± 2.0736	
Classroom Teaching	23	9.5217 ± 3.3011	

Mean age ± SD = 19.5 ± 1.118 *Significant(p<0.05), NS-Nonsignificant (p>0.05)
df=38(for t- test), df=39(for f test) Maximum score=20, Minimum score=05

DISCUSSION

The results of the present study showed that 45% of adolescent girls have average knowledge and 45% of adolescent girls have poor knowledge and only a few (10%) adolescent girls have good knowledge regarding breast cancer. However, this difference was statistically non significant as (p>0.05).

Association of knowledge regarding breast cancer was statistically tested and found to be significant with age, type of family, family's monthly income and source of health information (p<0.05).

Hasanthika M Ranasinghe, Nilakshika Ranasinghe, Chaturaka Rodrigo, Rohini De A Seneviratne and Senaka Rajapakse (2013) conducted a similar study on the awareness of breast cancer among 859 adolescent girls in schools within the Colombo District, Sri Lanka using a self-administered questionnaire. This study revealed that there were significant deficiencies in knowledge, attitudes and practices on breast cancer in the study population. In particular, knowledge on breast self examination was poor. There is a need for awareness programs aimed specifically at this important target group. [11]

Another similar study conducted by Naif A.Alharbi, Malik S.Alshammari, Barjas M.Almutair, GamalMakboul, Medhat K.El-Shazly (2012) on Knowledge, awareness, and practices concerning breast cancer among Kuwaiti female school

teachers (421). The study points to the insufficient knowledge of female teachers about breast cancer and identified the negative influence of low knowledge on the practice of BSE. [12]

CONCLUSION

This study concluded that most of the adolescent girls have average knowledge regarding breast cancer. Association of knowledge regarding breast cancer was statistically tested and found to be significant with age, type of family, family's monthly income and source of health information (p<0.05).

Limitations

Limitations of the study were as follows-

1. The study was conducted only in one selected institute with sample 40; hence generalization of the study is restricted.
2. The study focuses on assessing the knowledge regarding breast cancer rather than improvement in the behaviour.
3. The study was limited on only adolescent girls.

Recommendation

Keeping in view the findings of the present study, the following recommendations were made since the study was carried out on a small sample. The results can be used only as a guide for further studies.

1. The study can be repeated by taking a large sample in other parts of country.

2. A comparative study can be conducted between urban and rural adolescent girls on knowledge regarding breast cancer.

3. An experimental study can be carried out to find out the effectiveness of planned teaching program on breast self examination to reduce risk of breast cancer.

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How to cite this article: Kaur A. To assess the knowledge among adolescent girls regarding breast cancer: descriptive study. *International Journal of Research and Review*. 2019; 6(8):70-76.
