Research article   **Medical research**

Silent but deadly: prevalence of breast problems among female students of secondary school, South Wollo, Ethiopia

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ABSTRACT

Background

The growing population in Ethiopia coupled with lifestyle changes will mean an increasing burden of breast problems which are warning signs of cancer. However, oncology services are wholly inadequate-no cancer registry exists, and only one cancer centre, with limited resources struggles to serve the entire country. Early detection means more treatment options and a better chance of recovery.

Objective

To determine prevalence of breast health problems among female students of selected Secondary School, Ethiopia, 2017.

Methodology

An Institution based cross sectional study design was employed. Purposive sampling technique was used to select all 809 students.

Results

The study revealed that the prevalence of breast problems was 4.44% and needs prompt interventions.

Conclusion

This is an eye opener for further in order to rule out the problems in ahead to prevent the deadly disease like breast cancer.

Keywords: Prevalence, Breast Problems, Female students, Secondary School

INTRODUCTION

A woman's breasts go through many changes over a lifetime, including puberty, periods, pregnancy and generally getting older. Most women experience breast changes at some time, women's age, hormone and medications causes these changes and can lead to the breast problems. Breast development is the first sign of puberty in young girls. Breast problems, such as breast lumps, breast pain or tenderness, nipple discharge or inversion, and changes in the skin of the breast, are common in women of all ages, from adolescents to older women.

Early breast cancer is often seen on a mammogram before there are any symptoms. In low and middle income courtiers breast examination is preferable and substitutes mammogram to detect some common breast problems due many uncertainty. The most common symptom of breast cancer is a painless lump. But sometimes painful lumps are cancerous. Other symptoms of breast cancer include skin changes, such as dimpling or puckering, nipple discharge, darkening of the area around the nipple, a nipple being drawn inward, any breast problem that lasts more than 2 weeks, a breast lump in a man. [1]

Cancer is a leading cause of death in both more and less economically developed countries; the burden is expected to grow worldwide due to the growth and aging of the population, particularly in less developed countries, in which about 82% of the world's population resides. [2]

Breast problems, such as breast lumps, breast pain or tenderness, nipple discharge or inversion, and changes in the skin of the breast, are common in women of all ages, from adolescents to older women. While it can be frightening to discover a new breast problem, most breast problems are not caused by breast cancer. [3]

OBJECTIVE

To determine prevalence of breast health problems among female selected high school students, Ethiopia, 2017.

METHOD AND MATERIALS

Study area and period

The study was conducted in Nigus Michael secondary, Dessie from 15th December 2016 to 15th January 2017.

Study design

Institution based cross sectional study design was employed.

Population

Source population

All female students in Nigus Michael secondary in the first half of 2017 academic year.

Study population

All female students in Nigus Michael secondary school in the first half of 2017 academic year attending classes during the study period.

Inclusion and exclusion criteria

Inclusion criteria

Regular students

Sample size determination and sampling technique

Sample size determination

All 809 female students involved in this study.

Sampling techniques

All female students were selected by purposive sampling technique.

Study variables

Dependent variables

Breast health problems

Independent variables

Selected socioocio-demographic variables

- Age
- Grade
- School where they attend classes

Data collection procedures

The study subjects have got a general introduction to the study as well as the opportunity to ask questions about the study and given their verbal consent. Parents were informed and consented. Trained 20 final year BSc nursing female students examine breast using checklist for breast problems consulting supervisors. The principal investigator checked completed questionnaires for consistency and completeness on a daily basis. Initially around 1636 students were screened for breast health problems in Nigus Michael General Secondary, Dessie and Millennium Secondary and Preparatory School, Kombolcha Ethiopia. There around 36 and 25 abnormal cases were identified respectively. Viz. Lumps, Asymmetry, Mastitis, Discharge, Tenderness etc. All Suspected cases were brought to the Dessie Referral Hospital for secondary

specialist clinical screening. For those who need further investigation like Ultrasound, FNAC and so on and treatment were given free of cost. Cases were treated medically and surgically and some of the students are advised for surgery and advanced investigation due to their final examinations. For those fail to come to hospital for secondary screening by specialists health awareness raising program will be designed.

Data quality management

The data collection methods, tools and how to handle ethical issues were discussed with the data collectors and supervisors during a 2 days training. All suspected cases were consulted to senior before deciding they have some abnormalities. Regular supervision by the supervisor and principal investigator has made to ensure that all necessary data are properly collected. Each day during data collection, filled check lists were cheeked for completeness and consistency.

Data processing, analysis, interpretation and presentation

Once all necessary data obtained, data was checked for completeness edited, coded and analyzed statistically. Tables and graphs were used to present result.

Operational definition

Breast health problems

In this study it refers the breast disorders or abnormalities those may be the risk factors to develop breast cancer. viz Lumps, Asymmetry, Mastitis, Discharge, Tenderness etc

Ethical consideration

Ethical clearance was secured from Wollo University College of Medicine and Health Sciences research review board and official letter has communicated to the schools. Female students were given general orientation about the study and examined after getting their verbal consent. Each student was examined in private room and by female examiners. Those students suspected to have breast abnormalities were consulted to Specialist working at Dessie Referral Hospital and got further specialist evaluation and intervention. One hundred selected female students were trained on breast self examination for one day.
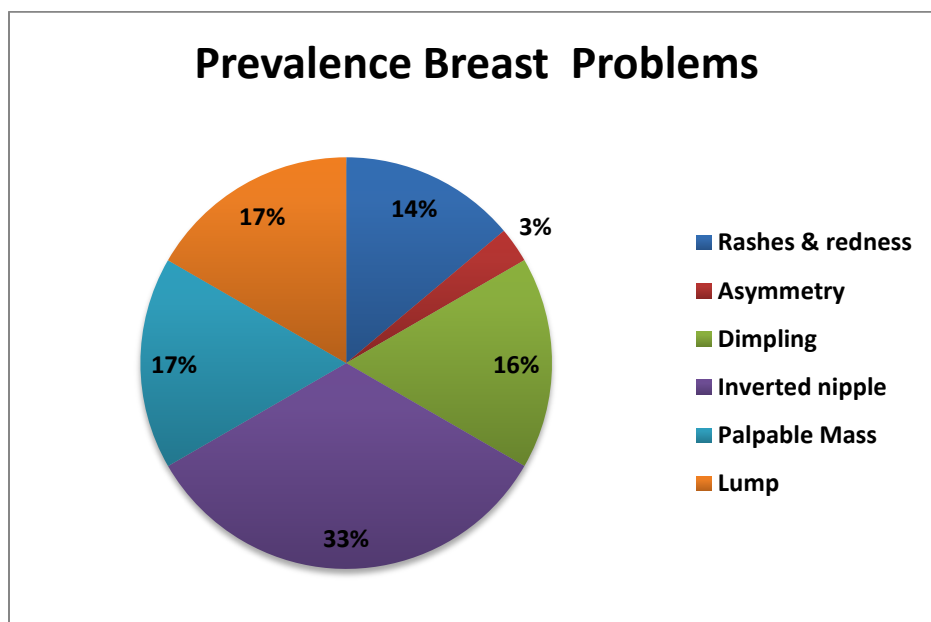
RESULTS

Figure 1: Prevalence of breast problems among secondary school students

Above cited pie chart data depict that, the prevalence of breast problems was 4.44%. The prevalence of breast problems was 36 among out of 809 secondary school age groups. Of those majority 12 (33.3%) had inverted nipple, 6(16.66%) had dimpling, 6 (16.66%) had palpable mass and lump and the rest 6 (16.66%) had ulceration and signs of infection. 5(13.88%) had rash and tenderness and one (2.77%) had asymmetry.

DISCUSSION

With 1 million new cases in the world each year, breast cancer is the commonest malignancy in women and comprises 18% of all female cancers. [4] An Indian study comprised of 168 cases with BBD; the commonest being Fibroadenoma which formed 55.9% followed by fibroadenosis 20.8%. The other benign lesions observed were acute abscess, chronic abscess, mastitis, cysts, galactocele, gynaecomastia, traumatic fat necrosis, duct papilloma, mastalgia and so on. [5] In this study the prevalence of breast problems was 4.44%.

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CONCLUSION

Breast health problems are silent but deadly. These hidden problems can kill the person if they are not identified in very early stage and therapeutically prioritize. A total of 809 female high school students were involved and examined in this study. The prevalence of breast problems was 4.44%. The prevalence of breast problems was 36 among secondary school age groups. This research can be extended to other areas to meet and address the issue.

REFERENCE

[1]. William H. Blahd, Jr., MD, FACEP - Emergency Medicine, Physician at the New York VA Hospital in New York, New York. https://www.healthlinkbc.ca/health-topics/ts1424#ts1424-Intro

[2]. Ferlay J, Soerjomataram I, Ervik M, et al; International Agency for Research on Cancer. GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC Cancer Base No. 11. globocan.iarc.fr. Accessed December 12, 2013.

[3]. Morrow M. The evaluation of common breast problems. Am Fam Physician 61, 2000, 2371.

[4]. K McPherson, C M Steel, J M Dixon. ABC of Breast Diseases. BMJ VOLUME 321(9), 2000.

[5]. Ref: Selvakumaran S et al.Study of various benign breast diseases Int Surg J. 4(1), 2017, 339-343.