ORIGINAL ARTICLE

Knowledge and practices about breast cancer

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Abstract:

Objective: To assess knowledge and practices about breast cancer among paramedical staff at Services Hospital.

Methodology: It's a descriptive cross sectional study conducted in Services Hospital, Lahore. 100 female paramedical staff personnel were taken as a sample based upon non-probability convenient sampling. The data was collected by the investigators themselves by the use of semi-structured questionnaire that was finalized after pre-testing

Results: The data was analyzed by putting into IBM statistics software. 93% of female paramedics had knowledge about breast cancer as most common cancer in women. 41% of respondents knew that breast cancer occurs more commonly in old people. 66% of respondents had knowledge about inheritance of breast cancer. 96% of female paramedics knew that breast self-examination (BSE) is useful in early diagnosis of cancer. 94% respondents were well aware that breast cancer first presents as a painless lump in breast. 66% practiced breast self-examination once in a month routinely. 72% respondents never went for clinical breast examination.

Conclusion: Overall level of knowledge about breast cancer among female paramedics of Services Hospital, Lahore was found to be satisfactory but their level of awareness regarding practices about breast cancer and their importance in diagnosis was inappropriate. This lower level of awareness poses serious worries because this paramedical staff have to deal with patients at the hospital and have a pivotal role in guiding them about the disease and prevention

Keywords: Breast cancer, paramedical staff, self-breast exam, mamogram and ultrasound breast

Introduction:

Cancers are known as non-communicable diseases that are appearing as the leading cause of death. There are many types of cancers. Breast cancer is one of them. Breast cancer arises from breast cells. It usually begins in inner lining of milk ducts or lobules. It is a malignant neoplasm that can metastasize to other parts of the body. According to survey, nearly 1 out of every 9 women suffer from the breast cancer.[1] According to World Health Organization (WHO) it accounts for 10% of all cancers diagnosed in world and 22% of all new cancers in 2,000 in women. In 21st century 1 million cases were reported.[2] A large number of women died in year 2000. In Asian countries, Pakistan has highest incidence rate of breast cancer among Asian countries.[3]

Breast cancer is the 2nd leading cause of death in Pakistan because of gene mutation and increasing age.[4] Pakistani culture is also a major reason in its wide spread. There is no setup for data collection and recording of cases. In rural areas great number of cases is emerging every year. Its inheritance from mother to daughter is also major cause of spread. There is a lack of proper health setup in rural areas. There is also a big issue of illiteracy among women. They have no knowledge on personal hygiene. Drinking alcohol, obesity and aversion to breast feeding are also thought to be major causes of this spread. According to a research, incidence of breast can-

cer in Pakistan is 2.5 times more than in other countries like India.[5] 77% of women with breast cancer are over the age of 50.[6]

Reports from Western Europe and North America stated that there is a decrease in death rate from breast cancer due to using of screening methods for detection of early disease.[7] One third of all cancers can be cured if diagnosed at less advance stage. Developing countries should arrange programs for awareness of females.[8] The frequency of breast cancer in Pakistani females is 50/1,00,000 than that of Indian women.[9] It is reported that the most common symptom of breast cancer is a painless lump so women should be having breast self-examination (BSE) for early diagnosis.

It was stated that women who regularly examine their breast could have early access to treatment. Most of the breast cancer patients in developing countries are presented at terminal stages resulting in poor response to treatment. Early diagnosis of cancer affects the chances of patients recovery and increases well-being of patients.[10]

Early diagnosis and cure of breast cancer is associated with long term survival.[11] There are many other factors that increase the chances of breast cancer like long menstrual history, obesity, never having had children or having the first child at the age of 30, post-menopausal therapy, radiation exposure, or consumption of alcohol. There are some factors that decrease the risk of breast cancer which include breast feeding, regular physical activity and maintenance of body weight.

Many women die due to this lethal disease. The aim of this study is to reveal the issue of breast cancer awareness although the exact cause and treatment of this malignancy is yet unknown. So, in the light of above mentioned factors, it is pertinent to conduct the study

The objectives of the study are, to assess knowledge about breast cancer among paramedical staff, and practices about breast cancer among paramedical staff.

Materials and Methods:

Study design: It was descriptive cross-sectional study.

Place of study: The place of study was Services Hospital, Lahore.

Study population: All Paramedical staff that is working currently at Services Hospital was study population.

Sampling technique: Non-probability, convenience sampling technique was applied during the study.

Sample size: Sample size was calculated as 95 keeping confidence level 95% with acceptable difference 0.10 and assumed knowledge and practices of breast cancer as 0.43 in a study conducted as "Knowledge, attitude and practice of Nigerian women towards breast cancer: A cross-sectional study by "Michael N Okobia, Clareann H Bunker, Friday E Okonofua and UsifoOsime". For making it more convenient, sample size has been made equal to 100.

Sample Selection:
Our inclusion criteria, all married and unmarried female paramedics above age 20 and all female paramedics not currently diagnosed with breast cancer

Our exclusion criteria, all female paramedics currently diagnosed with breast cancer and female paramedics who refused to participate in study

Duration of Study: Duration of study was one month.

Data Collection: semi-structured questionnaire.

Data Analysis: Data was entered in computer software SPSS version 23.0.

Ethical Issue: Informed consent was taken before collection of data. Confidentiality of the paramedics was maintained at all costs.

Table-1: Frequency distribution of female paramedics according to their knowledge of breast ca

Question asked from participants	Yes	No
Breast cancer as most common cancer in women	93	7
Breast cancer occurrence more commonly in old people	41	59
Breast cancer as inheritable	66	34
Breast cancer causation by evil spirits	26	74
Early diagnosis for improving outcome of disease	98	2
Breast self examination being useful in early diagnosis	96	4
Breast cancer being curable when detected early	94	6

Table-2: Frequency distribution of female paramedics according to their knowledge of sign and symptoms of breast cancer

Signs and Symptoms of Breast Cancer	Yes	No
Painless lump in Breast	94	6
Discharge from the breast	48	52
Pain or soreness in breast	85	15
Change in size of breast	82	18
Discoloration/dimpling of breast	74	26
Ulceration of the breast	71	29
Weight loss	66	34
Changes in shape of breast	82	18
Inversion/pulling in of breast	76	24
Swelling/enlargement of breast	88	12
Lump under armpit	68	32
Scaling in nipple region	68	32

Table-3: Frequency distribution of female paramedics according to knowledge about diagnostic methods of breast cancer

Diagnostic methods of breast cancer	Yes	No
FNAC Cytology	56	44
Self- Breast Examination (SBE)	87	13
Clinical Examination by Doctor	88	12
Mammography	79	21
Ultrasound	80	20

Table-4: Frequency distribution of female paramedics according to frequency of practice of breast self -examination

Respondent's frequency of practice of breast self -examination	Percentage
Once in a month	66.0
Once in two months	13.0
Three to five times a year	11.0
Once or twice a year	10.0

Results:

36% respondents were 20 or below 20 years old, 36% were between 21-25 years old, 24% people were between 26-30 years old and very few fell in older categories. 44% respondents were nursing students, 18% were charge nurse, 18% were staff nurse, 15% were helper and 5% were teachers. Educational status of 22% of the respondents was matric, 42% were intermediate, and 36% were above intermediate. (Table-5, Figure-3). 13% of respondents were having one sibling, 10% had two, 19% had three, 40% had four, and 18% had more than four siblings.

93% of female paramedics had knowledge about breast cancer while 7% were unaware. 41% of population had knowledge about the occurrence of breast cancer more commonly in old respondents, while 59% respondents were unaware. 66% of the respondents were having the knowledge of breast cancer as inheritable, while 34% were unaware.

26% of the population believed about the causation of breast cancer by evil spirits while 74% denied. 98% of the respondents were having knowledge that early diagnosis improves outcome of the disease, while only 2% were unaware. 96% of the respondents had the knowledge of breast self-examination being useful in early diagnosis, while 4% were not aware.

94% of the respondents had knowledge of breast cancer being curable when detected early, while 6% were unaware. Regarding signs and symptoms of breast cancer, 94% of respondents knew that it presents as a painless lump in breast, 6% were unaware. About discharge from breast, 48% knew and 52% were unaware. About pain and soreness in breast, 85% were aware while 15% were unaware. About change in size of breast, 82% knew while 18% were unaware. About discoloration/dimpling of breast as a sign of breast cancer, 74% agreed while 26% disagreed. About ulceration of breast as a sign of breast cancer, 71% were aware while 29% were unaware. About weight loss, 66% knew while 34% were unaware. About change in shape of breast, 82% were aware while 18% were unaware. About inversion/pulling in of the breast, 76% knew while 24% didn't know. About swelling or enlargement of breast, 88% were aware while 12% were unaware. About lump under armpit, 68% had knowledge while 32% didn't. About scaling/dry skin in nipple region 68% of respondents were aware while 32% were found to be unaware.

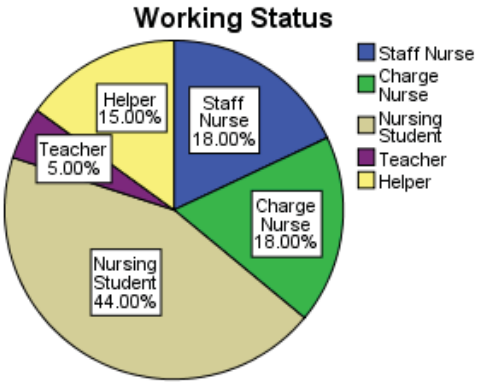

Figure-1: Paramedics according to their working status

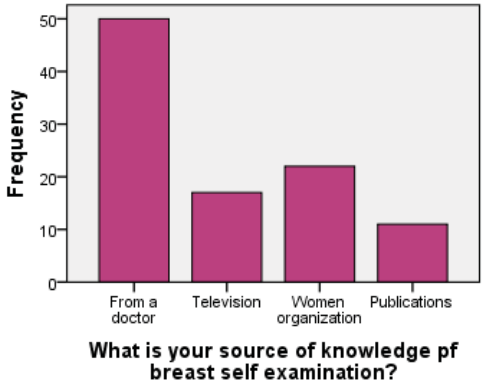

Figure-2: Frequency distribution of female paramedics according to source of knowledge of breast self-examination

Table-5: Respondent's Reasons for not practicing Breast Self- Examination

Respondent's frequency of practice of breast self -examination	Percentage
Not having breast problem	37.0
Think I should not	13.0
Doctors and nurses should do	10.0
Carelessness	40.0

Regarding the knowledge of diagnostic method of breast cancer, 56% of respondents were aware of fine needle aspiration cytology (FNAC) as method to diagnose breast cancer while 44% were unaware. About self-breast examination (SBE), 87% respondents knew that it is a diagnostic method for breast cancer while 13% disagreed. About clinical breast examination by doctor, 88% respondents were aware while 12% were unaware. About mammography as a diagnostic method, 79% agreed while 21% of respondents disagreed. About ultrasound 80% as a diagnostic method, 80% of respondents knew while 20% were unaware.

Frequency of practice of breast examination was once in a month in 66% of respondents, once in two months in 13% of respondents, 3-5 times a year in 11% of respondents and once or twice a year in 10% of respondents. 50% of the respondents received knowledge of breast self-examination from a doctor, 17% from television, 22% form women organization and an11% from publications. About not practicing breast self-examination, 37% of the respondents said they don't feel they have a breast problem, 13% said they think they should not, 10% said doctors and nurses should do it and 40% considered carelessness as the cause.

28% of the respondents responded positively for a clinical examination of the breast while 72% dis-agreed. About reasons for not going for clinical examination, 55% of respondents do not have breast problems, 6% said I do not that I should and 39% said I don't know about SBE. Results showed that 8% of the respondents felt comfortable of being examined by a male doctor, 92% didn't.

Discussion:

100 female paramedics were interviewed to determine knowledge and practices about the breast cancer. As far as their education status is concerned 100% of the respondents were educated with the different educational status. It was encouraging to know that 90% of respondents had knowledge about breast cancer as the most common cancer in women which is in line with study conducted as Feuer EJ[62] where most of the non-medical, 73% and medical, 80% students were aware of the fact that breast cancer is among the most prevalent cancers in women of Pakistan. But the knowledge of respondents about the occurrence of breast cancer in old people does not seem to be correct because as it is apparent from current knowledge that it equally effect both old and young age group rather occurrence of cancer is going to be shifted towards lower age group during the current years. Similarly, 60% of respondents claimed breast cancer as a disease with hereditary basis which is in contrast to study as Feuer EJ et al[62] where 85% medical students were sure that family history

makes a woman more vulnerable to breast cancer. Although there seems to be some hereditary basis in the causation of breast cancer but it is not so frequent. It was distressing to know that 26% of the respondents blamed evil spirits as a cause of breast cancer kwhich is in accordance with study conducted as Okobia et al[63] where also 40% of the study participants claimed evil spirits as cause of breast cancer which seems to be ridiculous as the modern research and test has totally negated these baseless and futile concepts therefore there is dire need to correct and update their knowledge about causation of breast cancer. As we know that early diagnosis of any disease always improves the outcome and ultimate treatment of the disease. It is apparent from the study that 98% of the respondents had knowledge of better outcome of breast cancers if it is diagnosed at very initial stages because which ultimately leads to decreased mortality and morbidity. As there are different methods to diagnose breast cancer in early stages, breast self-examination (BSE) is one of very popular and potent methods for early diagnosis. It is very encouraging that 96% of respondents were having knowledge of breast self-examination which is in contrast to study conducted as Okobia et al[63] where only 43.2% of study participants admitted to carrying out the procedure in the past year. This knowledge of BSE may be helpful in early diagnosis and ultimate treatment of breast cancer.

Likewise 94% of respondents were of idea that it is curable if picked up in early stages. Signs and symptoms are of paramount importance for the diagnosis and subsequent treatment of a disease. 94% of respondents were correctly having knowledge of breast cancer sign and symptoms as presence of lump in the breast which is in line with study conducted as Feuer EJ et al[62] where 90% students were familiar with the fact that the presence of a lump in breast tissue can be a potent early warning sign. As we know that discharge from breast is also early signs of breast cancer but only 48% of respondents were aware of this. Similarly 74% of respondents claimed the discoloration/dimpling of breast as early sign and symptom. Likewise 71% of respondents claimed ulceration of breast as an early symptom. 68% of the respondents were also having knowledge of a lump under armpit which could be associated with breast cancer and may be regarded as an early sign of breast cancer. The knowledge of these signs and symptoms is utmost important in early diagnosis and in time consultation with proper medical personnel which can change the prognosis of the disease and these signs and symptoms can be advertised through mass media for women's awareness or focus group discussion can be arranged to highlight these signs and symptoms. At present there are a lot of diagnostic methods available for the in time and proper diagnosis of breast cancer. It was very encouraging that majority of respondents were aware about breast self-examination, clinical breast self-examination and even presence of modern diagnostic tools like mammography and ultrasound but regarding fine needle aspiration cytology (FNAC) only 56% of respondents were aware of it although fine needle aspiration cytology is very important for confirmation of breast cancer therefore their knowledge regarding this important diagnostic technique needs to be upgraded. Although there are recommendations for frequency of breast examination once in a month, only 66% of respondents were having knowledge of it. Rest of respondents were having incomplete/incorrect knowledge regarding breast cancer which needs to be rectified. Mass media plays an important role in sharing/importing knowledge about various health problems. It was distressing to know that only 17% respondents got knowledge of breast self-examination from television which is in contrast with study Mamoona Noreen et al[62] where Television and school/college education were most cited sources of information regarding breast cancer. So the mass media should play its role in the proper display of this very important aspect of breast cancer which is very important for early diagnosis and prompt treatment. Similarly 50% of respondents got knowledge from a doctors which needs further strengthening and free talk with females regarding this important issue. Similarly various excuses and reasons as narrated by respondents that need to be

addressed and proper remedial measures should be adopted. It is again very distressing to know that only 28% of the females were examined for breast problems which is almost in accordance with study conducted as Okobia et al[63] where also only 9.1% of study participants had clinical breast examination (CBE) in past year which needs to be enhanced and the special camps could be arranged for early screening and diagnosis of the breast cancer by proper frequent examination. Similarly there should be proper arrangement of the female doctors for examination as examination for breast problems is not acceptable by a male doctor in our community because of social problems and because of this early diagnosis of breast cancer could be missed leading to increased mortality and morbidity

Conclusions:
Overall level of knowledge about breast cancer among female paramedics of Services Hospital was found to be satisfactory but their level of awareness regarding practices about breast cancer and their importance in diagnosis was inappropriate. This lower level of awareness poses serious worries because this paramedical staff have to deal with patients at the hospital and have a pivotal role in guiding them about the disease and prevention.

Most of the respondents knew that breast cancer is the most common cancer among women. Their knowledge about age-wise distribution of breast cancer was found to be inappropriate as most them negated the fact that breast cancer is a disease of the old. Most of them were well aware of the fact that breast cancer is an inheritable disease and family history increases the risk of getting breast cancer. Almost all of the respondents had appropriate knowledge about early diagnosis improving the outcome of the disease. Also their knowledge about breast self examination being useful in early diagnosis of the breast cancer was good enough. Most knew that breast cancer was curable when detected early. It was pleasing to know that they were well aware about sign and symptoms of breast cancer as most knew that it presents as painless lump in breast. Their knowledge about diagnostic methods of breast cancer viz. self breast examination, clinical breast examination, mammography and fine needle aspiration cytology was up to the mark.

The knowledge and awareness about practices regarding breast cancer was below par as a significant number of respondents didn't know about frequency of practice of BSE. Role of media in imparting knowledge about practices regarding prevention from breast cancer was lacking as most of respondents obtained this knowledge from a doctor or other organizations. Considerable amount of carelessness was found regarding practice of BSE as respondents were of the view that they didn't have breast problem. Majority had never gone for a clinical breast examination and their reasons for this were unsatisfactory. Most of the respondents showed their discomfort regarding breast examination by a male doctor.

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Role and contribution of authors:
Dr. Muhammad Yasir Tarar, did literature review, research design and finalized the manuscript

Dr. Sadaf Inayat, helped in collection and analysis of data.

Dr. Razia Atta, helped in collection and analysis of data.

Dr. Sadaf Khurshid, helped in collection and analysis of data.

Dr Anas Ahmed Khan helped in collection of data.

Dr. Syeda Ayesha Hashmi, helped in collection and analysis of data, helped in final draft

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