Knowledge, attitude and practices among female registered nurses regarding breast self-examination in tertiary care hospital, Karachi, Pakistan

Abdul-Rehman, Gul-e-Zehra

Pakistan

Abstract

Breast cancer is one of the leading causes of death in Pakistan. The diagnosis of breast cancer at early stage can be possible by mass screening and breast self examination. Therefore breast self examination is an important tool which will help decreasing the disease severity and thereby can increase the survival rate. The objectives of the study was to assess the level of knowledge regarding breast self examination and also determine the attitude and practice regarding breast self examination among registered nurses. The study design is Descriptive Cross Sectional including 225 registered nurses via Simple random sampling selected from three campuses of Dr Ziauddin hospital. Ziauddin Hospital, of North, Clifton and Kemari. The questionnaire was designed using KAP study on BSE questionnaire (Dollar Doshi et al; 2012 Rosmawati 2010). Data was analyzed using SPSS software (version 20). The result section states that there was a significant relation between BSE knowledge and socio-demographic characteristics. The overall study concludes that there were some gap found in the knowledge, attitudes and practices of study participants. Thus, in order to eradicate such lacking frequent sessions on BSE for everyone should be arranged in order to increase awareness among women.

1. Introduction

This study is about knowledge, attitude and practices among female registered nurses regarding breast self-examination in tertiary care hospital, Karachi, Pakistan. It provides a theoretical background of the study, epidemiology of cancer, risk factors of cancer, symptoms of cancer, an overview about breast self-examination.

1.1 Theoretical Background of the Study

Breast cancer is one of the leading causes of death in Pakistan. It is about 100 times frequent among women as compared to men (Jemal, Bray, Ferlay, Ward, & Forman, 2011). It is not only an issue in a developing country like Pakistan, but is also a major health risk in developed countries, the increasing incidences of cancer ultimately puts a huge burden on the health system. (Bray, Ren, Masuyer, & Ferlay, 2013). According to National Research Council (2004), the ability to cope with the consequences of breast cancer due to psychosocial distress can lead to sadness, anxiety, panic, depression, isolation and spiritual crisis. According to Ozturk (2000) secondary prevention through breast self-examination leads to early detection and helps in controlling the mortality rate. Many studies have identified a gap in the awareness and the practice of breast self-examination. In Nigeria a study done by Isara and Ojedokun, (2011) showed that only 10% female secondary school students were able to perform breast self-examination. Studies also reveal that in underdeveloped countries breast cancer is identified at advanced stages of the disease; consequently leading to poor prognosis and mortality (Sadjadi, Nouraie, Ghorbani, Alimohammadian, &Malekzadeh, 2009; Ertem&Kocer, 2009).

1.2 Symptoms of Breast Cancer

According to Lewis (2005) the main symptoms of breast cancer are: painless breast lump or breast mass, but it is to keep in mind that every lump is not cancerous. Other symptoms of breast cancer, which appear when the cancer gets more advanced, are, A change in the size of the breast, Change in the shape of the breast, Abnormal nipple discharge, Weight loss, Change in the color of the skin of the breast, Dimpled, or, retraction of breast, Redness, pain or soreness in the breast, Swelling or enlargement of the breast, Lump under armpit and Dry skin in nipple region are the symptoms of breast cancer.
1.3 Study Objectives
The objectives of this study are to assess the level of knowledge among registered nurses regarding breast self-examination. This study will also determine the attitude and practice regarding breast self-examination among registered nurses at the tertiary care hospital.

1.4 Research Question
This study has been designed to address the following questions
1) What is the level of knowledge among Registered Nurses regarding breast self-examination among Registered Nurses working at a tertiary care hospital in Karachi, Pakistan?
2) What is the attitude and practice regarding breast self-examination among Registered Nurses working at a tertiary care hospital in Karachi, Pakistan?

2 Literature Review
The review is divided into three sections; the first section is about the background of the study and the epidemiology of breast cancer, second section highlights the knowledge, practices and attitude of registered nurses regarding breast self-examination and finally the third section is about theoretical model.

2.1 Breast Cancer
Breast cancer is one of those diseases that affect women all over the world and the numbers are increasing dramatically every year. Worldwide, more than one million new cases of female breast cancer are diagnosed each year. It is also the most common female cancer in both developing and developed countries; more than 90,000 of the one million global cases of breast cancer are from Pakistan (Bray, McCarron, Parkin, 2004). Considering this situation empowerment of women with information on breast self-examination is important, even in countries with the modern technologies for screening breast cancer. BSE is a simple, effective and inexpensive way of screening for breast abnormalities, especially in countries where women cannot gain access to modern technology. The impact or effectiveness of this program is aimed at behavioral change which is of great importance in the health care delivery system. The goal of health education in BSE is to create awareness and increase the competence of women to meet their needs and challenges in improving their health. An assessment of the role of knowledge and skills in empowering women for BSE is therefore of great relevance.

2.2 Knowledge, Attitude and Practice of Breast Self-Examination
Considering the importance of early detection, it is important to identify breast cancer at an early stage because; it has a major impact on decreasing morbidity and mortality rate. A 95% survival rate can be achieved when breast cancer is identified with early stage (Sadat et al., 2009). There were many studies conducted and they all portray an immense link of knowledge and attitude upon practice of Breast self-examination in order to early detect Breast cancer. For example, A cross-sectional study conducted by Donmez, Dolgun, and Yavuz (2012) to explore and evaluate the practice of women breast self-examination, in these 226 women participated in the study. However, only 146 were evaluated for breast self-examination practice. The study concluded that 61.3% had no knowledge about breast self-examination BSE, 50.8% had never practiced breast self-examination and only 29% performs breast self-examination every month. In addition to this another study was conducted in Korea by Kim and Park (2011) about knowledge, attitude and practice of obstetric nurses in relation to breast cancer and breast self-examination. 99% participants thought breast self-examination were important; however, only 58.9% practiced breast self-examination. The nurses who had the knowledge of breast self-examination; their attitude and practice were found superior to those nurses who had no knowledge.

A cross sectional study was conducted by Sharifirad, Reisi, Javadzadeh and Yarmohammadi (2010) to determine the knowledge, attitudes and practice of breast self-examination among female health workers in Isfahan. The knowledge about breast self-examination was 79%. Furthermore, 45% participants had positive attitudes; although, only 39% of the participants performed a breast self-examination every month.
A study was done on knowledge and attitudes of breast self-examination among women in Shiraz, southern Iran. The study revealed that 53.3% of the participants performed BSE from which only 5.6% did BSE in a correct method, whereas, 52.9% did not know how to do BSE and the remaining women did not do BSE due to the fear of being found positive for cancer or did not care about it. Those who performed BSE learned it from medical personnel (49.4%), their relatives, and TV, radio, books, journals and pamphlets. 46.7% of participants did not perform BSE and that almost all of those who did perform BSE did it incorrectly which bring into account the lack of knowledge on how to perform BSE (Simi & Yhabibzadeh, 2009).

A study done in Northwestern Nigeria in order to assess the knowledge and practice of BSE among 221 female students showed that the 85.1% had heard about breast self-examination and those who perform breast self-examination have a positive family history. 45.5%, of the female students got information regarding breast self-examination from the media, 21.8% female students got information from health care worker. Among the participants, 57% participants practiced breast self-examination; however, only 37.3% correctly described the method of breast self-examination. Only 19% performed breast self-examination on a monthly basis. The reason for not practicing breast self-examination was found as forgetfulness, lack of knowledge and has no history of breast cancer. The above finding indicates that the knowledge and the practice were very low regarding breast self-examination (Gwarzo, Sabitu, & Idris, 2009).

2.3 Theoretical Framework

The health belief model was used as a framework in this study. This model is developed by Hochbaum, Leventhal, Kegeles and Rosenstock (1950). Moreover, it is a psychological model; this model was first used by Champion (2002). According to Janz (2002) the basis of the theory is that the health action taken according to the degree of fear potential to benefit. The health belief model has often applied to many illnesses, including breast cancer screening. According to Dündar et al. (2006) the health behavior impact by person view of the perceived threat of health problem and the value to take action to reduce the threat. The purpose of being of integrating this model as preventative actions, action for prevention, screening and health management will occur if the individual perceives herself as susceptible to the condition. Furthermore, health belief model is used to assess individual preventive behaviors.

3 Methodology

The study design is descriptive cross sectional in order to answer the research question. The cross sectional design is based on a single examination of a population at one point in time. The research study aimed to assess the level of knowledge, attitude and the practice of breast self-examination among registered nurses of three campuses at a tertiary care hospital in Karachi. Consequently, this study design was appropriate and most suited to conduct the study. All female registered nurses who worked in outpatient and inpatient unit were included in the study and all the male nurses who worked in inpatient and outpatient were excluded from the study.

3.1 Sampling

The simple random sampling, which is the type of probability sampling, was used to select participants from three campuses of the Dr Ziauddin Hospital that is North, Clifton and Kemari for this study. The rationale for selecting this sampling technique for this study as simple random sampling eliminates the bias of study participants, a result highly representative and thus limiting chances of missing data. The WHO Software named as "sample size determination in health Sciences" is used for sample size calculation. Thus according to calculation the total population of Ziauddin hospital is N=252.

3.2 Measurement Tool

The tool which was used in the study consists of four parts and it’s taken from Rosmawati 2010 title “Knowledge, attitude and practice of breast self-examination among women in a suburban Area in Terengganu, Malaysia”. Later it was used by Dr Dollar Doshi, 2012 “breast self examination
knowledge, attitude and practices among female dental student in Hyderabad city in India”. Little modification in the questionnaire was made to suit the context of the current study and culture.

Part I: The demographic questionnaire
Part II: The knowledge of breast self examination
Part III: The practice of breast self examination
Part IV: The attitude regarding breast self examination

The data collection tool is consisting of different questions to assess knowledge, attitude and practice of registered nurses regarding BSE. Knowledge based questions had a standard correct answer; the total knowledge questions regarding the breast self examination were 23. The practice question was measured on a Likert scale (always, frequently, neutral, seldom and never) and the total practice questions were 7. The attitude scale was measured in term of Likert scale (Strongly Agree, Agree, Disagree and Strongly Disagree) and the total attitude question were 12.

3.3 Statistical Analysis

Data analyzed in SPSS (Statistical software for social science’s version: 20. Descriptive and inferential statistic was performed.

3.4 Validity and Reliability of Tool

The content validity was established by an expert team of nursing faculty members, in order to ensure that the tool cover all the necessary information needed for the study. The data collection tool was modified as per objectives of the current study. A questionnaire was tested by a pilot survey on the basis of 5% of the total sample size which is 11 participants. The purpose of the pilot study is to test study feasibility and determine the time required for the completion of the questionnaire as well as to see the content validity. Cronbach Alpha was calculated for the overall questionnaire, the alpha value is 0.703.

4 Finding

There were a total of 225 registered nurses from Ziauddin Hospital who participated in the study; but at time of data analysis it was found that the four forms are in complete so it was not included in the study. Hence, after leaving the missing data total 221 participants were included, these participants, were from age 20 to 50 years. The findings also depicts that the majority of the participants 207 (93.7%) were aware of BSE whereas 14 (6.3%) participants never heard about BSE. Furthermore, 189 (85.5%) participants reported that they performed BSE and on ly 32 (14.5%) participants never performed BSE.

Data were also found regarding the level of correct knowledge of the participants, taking 70% score as the benchmark of correct knowledge the findings disclose that 138 (62.4%) participants that is more than half of the participants had correct knowledge regarding BSE and 83 (37.6%) of the participants had incorrect knowledge.

The level of knowledge of BSE was found with the help of a set of 20 questions, the result reveals that 160 (85.1%) participants were not knowing the frequency of BSE performed, while only 33 (14.9%) were aware about the performance frequency of BSE; 171 (77.4%) participants were aware that BSE was done between day 7 until day 10 after menses, while 50 (22.6%) participants were not aware of this knowledge. The majority of the participants 186 (84.2%) subjects agreed to the question inquiring the BSE performance in front of the mirror whereas the rest of the participants had no knowledge regarding this.

The level of practice of BSE among participants revealed that only 145 (65.6%) participants reported that they performed BSE once per month with regularity, while 35 (15.8%) of them stated that they perform BSE frequently. Furthermore, participants were also inquired about the involvement of parents or partners in terms of advising to do BSE, which showed highly positive results and involvement of societal relationship in terms of BSE as 122 participants (55.2%) reported always, 37 participants (16.7%) had frequent encouragement from their parents or partners and 34 participants (15.4%) never got such advice or reinforcement. Many participants not only got advice from their relationships, but they in return also advised their colleagues; 147 (66.5%) of the total participants always supported their colleagues to do BSE, only 19 (8.6%) never advised others to do BSE. The
study participants also discussed the importance of BSE with others; 145 (65.6%) participants reported that they always discuss the importance of BSE with colleague and family members, 145 (65.6%) participants discussed frequently with their family, whereas, only 08 (3.6%) never discussed the importance of BSE with family. Additionally, only 145 (65.6%) study participants performed BSE once a month, whereas, majority of the study participants around 170 (76.9 %) reported affirmatively to if notice any breast abnormality they directly go to a physician, making it as the highest practice score showing their positive attitude towards BSE.

The findings further illustrates about the **attitude of the study participants regarding BSE**, the participants were asked whether breast self examination will make them feel funny as 28 (12.7%) participants reported strongly agree, 20 (9%) participants selected agree, 22 (10%) participants were neutral, 57 (25.8%) participants disagreed and 94 (42.5%) participants strongly disagreed. The participants found barrier as well while practicing BSE as 15 (6.8%) participants strongly agreed that BSE is embarrassing to them and 32 (14.5%) participants also agreed with this. There was an indication of positive attitude regarding medical help behavior as 161 (72.9%) participants indicated that they will prefer to get treatment from a physician when they found a lump. The reason for the positive attitude might be that the study participants belong to the medical profession and moreover, they know the consequences of breast cancer and the impact of late presentation. Furthermore, the following barriers were found by the participants while performing BSE which had an impact on their attitude, 28 (12.7%) participants strongly agreed, whereas 20 (09%) participants agreed as BSE being a waste of time, 19 (8.6%) participants strongly agreed whereas 25 (11.3%) participants agreed that doing BSE made them feel unpleasant. The majority of the participants that is 122 (55.2%) reported that they felt uncomfortable while performing BSE in front of the family members which could be a barrier while performing BSE. Additionally, 99 (44.8%) participants found barrier of being fearful of having breast cancer as they avoided BSE.

5. Discussion
The current study reveals that overall 62.4% participants had the correct knowledge about breast self-examination. The rate of knowledge in current study is very low in comparison to the study that has been conducted by Kayode, Akande and Osagbemi (2005) at Nigeria, who reported that about 95% of the participants were found to have the correct knowledge about breast self-examination. The reason behind this difference could be the frequent awareness sessions regarding BSE for the participants which help them to gain more knowledge about BSE and breast cancer. The current findings of the study is much higher than the study conducted in Hyderabad, India on dental students by Doshi, Reddy, Kulkarni, and Karunakar (2012) in which 28% of students had knowledge about breast self-examination, whereas, current study has 62.5% correct knowledge.

5.1 Association of Knowledge with Demographic Data
In the current study, the association can be seen directly with the participant’s age. It was identified that older aged nurses had less knowledge as compared with the young nurses. The reason could be that the breast self-examination was not the part of nursing curriculum before; therefore the older nurses had less knowledge about it. Furthermore, it was identified that the married nurses had a little higher level that is 67.9% of knowledge as compared to the single and unmarried nurses which was 62.4%. Moreover, in the current study significant association was observed between the professional qualification and knowledge of nurses about breast self-examination. The current study concluded that the registered nurses and the registered midwives were more knowledgeable than nurses who were registered nurses only. The possible reason could be that the midwives study BSE as part of their curriculum. Lastly, the comparison among level of knowledge about BSE and years of experience was inversely proportional. As the years of experience increased the level of knowledge was seen towards a decreasing end among the participants of the study. In conclusion, in the current study association between demographic data and the level of knowledge identified which was not found in any of the previous existing studies has been conducted among nurses.
5.2 Association of Knowledge, Practice and Attitude of BSE

5.2.1 Knowledge and Positive Attitude

This study shows that 93.7% nurses were aware of the BSE and the level of correct knowledge about breast self-examination among nurses was also found as 85.5%, whereas, 65.6% participants reported that they practice breast self-examination regularly. Furthermore, this study also projects that 89.2% participants had the positive attitude regarding the BSE.

5.2.2 Knowledge and Practice

The study held in India among female dental students identified that 28% participants had knowledge of breast self-examination from which only 53% of female dental students were practicing BSE. However, 20.6% of them felt that all women should perform BSE regularly (Doshi, Reddy, Kulkarni, & Karunakar, 2012). The level of knowledge and practice was lower than current study. In the current study 65.6% participants reported that they practice BSE regularly.

5.2.3 Knowledge and Level of Performance

In the current study participants were asked that if they have heard about the BSE. 93.7% nurses replied that they have heard about the BSE, which is higher than the study conducted by Donmez, Dolgun, and Yavuz (2012) among Iraqi women. 90.9% of the women had heard about breast self-examination from which only 48.3% were practicing BSE which is again lower than the current study findings that was 65.6%.

5.3 Knowledge Attitude and Practice in Women Related to Health Profession

Many studies have been done related to the breast self-examination on women either related to the health profession or not, could be compared with the current investigation. Such as, a cross sectional research among female medical students at the University of Lagos, regarding knowledge, attitude and practice of breast self-examination initiated by Olowoyeye et al. (2010) resulted as 97.3% female heard about breast self-examination from which 85.8% knew the correct method of performing breast self-examination, whereas, 43.5% were practicing which is very poor ratio among female medical students. In conclusion, this study results are also lower than the current study as 65.6% perform always BSE monthly.

5.4 Knowledge Attitude and Practice among nurses

A study conducted by Oritogun, et al. (2009) was conducted to explore the knowledge, attitude and practice of breast self-examination in health workers in Olabisi and Onabanjo. The study contributed that 41.4% nurses, 56.5% laboratory scientists and 81.8% doctors were having correct knowledge about the correct time period for performance of breast self-examination. 78.3% of laboratory scientist practiced breast self-examination monthly, while only 68.2% of the doctor practice breast self-examination monthly and 30% nurses performed breast self-examination monthly. The data indicates that practice of breast self-examination was extremely low among nurses. In comparison of nurses practice ratio with the current study one could conclude that the results are again lower than the current study. Furthermore, the limited studies among nurses also emerged the call for much more need to hold such studies in Pakistan and other parts of the world.

5.5 All Women Should Perform BSE

The current study asked the participants about their thoughts of practicing BSE by every woman. In the current study 90% of the nurses gave positive response that every woman should perform Breast self-examination. In consistent with the current study results the study conducted on dental students in Hyderabad city, India by Doshi, Reddy, Kulkarni, and Karunakar (2012) resulted that only 20.6% participants felt that all women should do BSE. The result of the previous study is very lower than the current study. This concluded that the nurses in Pakistan have much higher positive attitude regarding BSE than any other part of the world.

6. Recommendations

The findings of the current study have brought forth a number of recommendations.

6.1 Recommendations for Nurses

All nurses, including nurses, midwives and all other nursing staff should take a serious note to learn breast self-examination and encourage themselves and others to practice BSE regularly. There
should be sessions conducted for the nurses to increase awareness level in the hospital and at the community level as well. Nurses should make aware their family members and disseminate the knowledge at the family and community level as well. Correct knowledge of BSE should be made essential among nurses to ensure better and perfect health care.

6.2 Recommendations for Management
Management should ensure availability of enough staff for the conducted sessions. In addition, staff should be reinforced personally to practice BSE on regular bases. Continuous sessions should evaluate the right practices and correct knowledge so nurses can deliver right knowledge and practices to their patients as well. Management should reinforce nurses to conduct teaching sessions for their patients, in order to transfer knowledge and practices to the patients as well.

6.3 Recommendation for Education
Ongoing structured sessions for nursing students should be arranged on the importance and correct practices of breast self-examination. In this way students will be prepared for their future challenges. Breast self-examination should be made part of nursing curriculum. Students should be encouraged to conduct teaching sessions in their community rotations and could aware society by circulating flyers and through other strategies. The education should enforce not only for the correct knowledge but on the right and regular practices as well.

7. Conclusively
Thus, it was found that knowledge and attitude has a lot of impact upon the practice of Breast Self Examination. Therefore, it is important to create awareness regarding BSE in order to impart knowledge and positive attitude towards this practice for better the health of women.

8. References


Kim, M., & Park, Y. (2011). Knowledge, attitude, and practice of obstetric nurses in...


