Anxiety in Women Presenting for Mammography in Nigeria: Causes and Implications

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Abstract

The purpose of this study was to identify the causes of anxiety among women presenting for mammography in Nigeria and the ways of decreasing it during the procedure. **Method:** Two sets of questionnaires were constructed and shared to the women presenting for mammographic examination and to the mammographers. All the women who came for the examination and met the inclusion criteria were included in the study. All the questionnaires were completed and returned. **Result:** Most of the patients reported fear of pain, possible diagnostic outcome and the gender of the mammographer who will attend to them as the highest in the ranking of causes of anxiety. Also attitude of the mammographers were observed by the women to be contributory. **Conclusion:** The result of this study has revealed the causes of anxiety among women presenting for mammography in our locality. By appreciating these causes and addressing them many women 40 years and above will be encouraged to voluntarily undertake mammography in line with the recommendation of the American Cancer Society.

Keywords: Mammography, Breast cancer, anxiety, Nigeria.

1. Introduction

Breast cancer is one of the commonest malignant tumors in the world and is one of the leading causes of death due to cancer in women (Pisani et al., 1999). Mammographic screening has been the most effective means of reducing breast cancer mortality especially in women aged 50 to 69 years (Shapiro et al., 1982, Humphrey et al., 2002, Nystrom et al., 2002). Several studies on anxiety in mammography among Caucasians reported that it is related to fear of pain, discomfort during the procedure, mammographer's attitude and the possible diagnostic outcome. (Nielson et al., 1993, Hafslund, 2000, Galleta et al., 2003). However, in some countries high cost of the procedure and inaccessibility to low income women have been implicated as major barriers towards large scale screening (Freeman and Wasfie 1989, Blanchard et al., 2004, Chen et al., 2004). In Nigeria there has not been a published study, to the best of our Knowledge, aimed at establishing the causes of anxiety among women presenting for mammography in view of the multi ethno-cultural and religious composition of the country.

The purpose of this study therefore was to investigate the causes of anxiety in Nigerian women presenting for mammography with a view to identifying the possible barriers towards national mammographic screening in future.

1.1 Materials and *Methods*

Questionnaires and direct observation of some of the procedures were adopted by the researchers for data collection. Two sets of questionnaires; one for the women and the other for the mammographers were utilized to test the research questions formulated inline with the purpose of study. The test questions were written in simple English for clarity and explained to the illiterate women in vernacular. Semi-structured questions on causes of anxiety and open ended questions on other contributing factors were adopted. A total of 209 questionnaires were administered to the women and five questionnaires to the mammographers to authenticate the response from the women. All the women presenting for mammography, within the period of this study, at University of Nigeria, Teaching Hospital, Enugu, Tejuosho Diagnostic Centre Lagos and Federal Medical Centre Keffi formed the target population. The national spread is to ensure that the cultural, ethnic and religious views of the respondents were captured.

The research questions cover the following; age, marital status, education, religion and ranking of the possible causes of anxiety. The questionnaires were reviewed for information quality to ensure validity and reliability and any correction noted was effected. A pilot study was conducted before the commencement of the study. Ethical clearance was obtained from the three centers where the study was conducted. The purpose of the study was explained to all the participants who met the inclusion criteria for the study. Data analysis was carried out inline with the objectives of the study.

1.1.1 *Result:*

All the questionnaires (214) were completed and returned indicating a return rate of 100% (209 for the women and 5 for the mammographers). The age of the women range between 35 and 62 years. Most of the women were in the age range of 45 to 49 years (35%), 72.7% of them were married (Table 1). From Table 2, most of the women had secondary school education as the highest educational attachment (41.6%), and 49.3% of them women were Christians.

Table 1: Age and marital status of the women presenting for mammography

Age (yrs)	35-39	40-44	45-49	50yrs and above	Total
Single	7	19	15	14	57
Married	11	38	59	46	152
Total	18	57	74	60	209

Table 2; Educational and Religious standing of the women

Education Religion	No formal education	Primary school	Secondary school	Tertiary	Total
Christian	12	23	49	19	103
Moslem	18	2	32	12	84
ATR*	7	9	6	0	22
Total	37	54	87	31	209

ATR: African Traditional Religion

Table 3, Shows the causes of their anxiety and were ranked from the most likely to the least. Eighty nine (89) percent of the women sampled stated that mammography make them anxious. The majority of the anxious

women had secondary education level and below. Fear of pain, fear of possible diagnostic outcome and exposing the body to strangers ranked among the top three.

Table 3: women ranking of causes of their anxiety (from 1 most likely to 11 least likely)

1. Fear of pain
2. Possibility of cancer diagnosis
3. Exposing of breasts to strangers
4. Having a male mammographer manipulate the breasts.
5. Fear of mastectomy
6. Long waiting time in hospitals
7. Fear of radiation injury
8. Attitude of the hospital staff
9. The sight of mammography equipment
10. . Mammographers not explaining the procedure
11. Mammographers allowing students radiographers to assist during the procedure.

The mammographers sampled were three males and two females. The mammographers were asked to rank the perceived causes of anxiety in the women from the most likely to the least likely. The responses were displayed in Table 4. From the responses, fear of pain, fear of possible diagnostic outcome and being handled by male mammographers ranked among the top three on the scale.

Table 4: Mammographers ranking of causes of anxiety in women presenting for mammography. (From 1 most likely to 11 least likely).

1. Fear of Pain
2. Possibility of cancer diagnosis
3. Have a male mammographer manipulate that breast
4. Exposing their breasts to strangers
5. Fear of mastectomy
6. Long waiting time for the result
7. The presence of students during the procedure
8. Fear of radiation in jury
9. The procedure not being explained to them
10. Attitude of the hospital staff
11. The sight of the mammography equipment.

1.2 Discussion

This study shows that anxiety is experienced by majority of the women presenting for mammography in our environment (89%). Their anxiety emanated from various causes outlined by them. Comparison of ranking of causes of anxiety reported by the women and that reported by the mammographers showed important similarities. Fear of pain, possible outcome of the diagnosis, having a male mammographer and exposing the body to strangers were each ranked most likely by the two groups. 82% of the women sampled responded that they imagined that the procedure would be very painful. This is contrary to the finding of Gram and Slenker (1992), in which they found only 11% of women complaining of pain.

75% of the women reported that they were scared of being told that they have cancer of the breast which will result in mastectomy.

76% of the women responded that they would prefer a female mammographer. The commonest reason cited for this was that they could easily and willingly undress in the presence of females. However the idea of

having only female mammographers in Nigeria is far from being realized because there is insufficient number of trained radiographers in the country. There is therefore need for awareness campaign and education for women to show understanding where female mammographers are not available. Also to encourage young school leavers to enroll in the radiography program in the universities.

The study also showed that women beyond secondary school were more likely to have less anxiety during mammography. The low level of education in majority of the women who participated in this study and the increased anxiety level noted among them showed the need for a comprehensive program by the Federal and States' ministries of Health to create awareness about mammography and its role in breast cancer reduction.

This study showed that religious belief was central in the acceptability or otherwise of male mammographers by the women presenting for mammography. A campaign by the religious leaders will surely help to address this concern.

This study also showed that mammographers contributed to anxiety of the women due to their attitudes. This finding calls for a behavioral change among health professionals regarding women presenting for mammography. This is similar to the findings of Galleta et al., (2003) in which the women attributed some of the causes of anxiety to come from the mammographers.

1.3 Conclusion

The result from our study has provided important clues to the causes of anxiety experienced by women presenting for mammography in Nigeria. Identifying the causes of anxiety is critical to the promotion of screening mammography. Addressing most of the causes of anxiety as enumerated by the women will encourage many women 40 years and above to voluntarily undertake mammographic examination as recommended by the American Cancer Society (Saint-Germain and Longman 1993, Sadler et al., 2001, www.cancer.org).

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