

DOI: 10.36648/2472-1905.6.3.62

Breast Cancer Surgery: Barriers and Perceptions of Breast Reconstruction in Post Mastectomy Patients in Southern Nigeria

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Abstract

Background: There has been limited study on the barriers and perceptions of breast cancer patients for breast reconstruction as a continuum of their treatment within the sub-region.

Aim: To find out the barriers and perceptions that influence breast reconstruction after mastectomy in our sub-region.

Materials and methods: The researchers used questionnaires as the research instrument with oral interview. A qualitative study that recruited 29 participants who were drawn from Teaching hospital and Private Clinics was performed. They had undergone mastectomy and some breast cancer patients from Calabar between January, 2016 and December, 2019. The participants were women from the age of 28 to 60 years with a diagnosis of breast cancer planning for surgery or having undergone mastectomy. Participants discussed their experiences with breast cancer and accessing breast reconstruction.

Results: After data collection, it was analyzed with qualitative descriptive methodology, using SPSS version 17 (Chicago incorporated).

Conclusion: The study concluded that women's access to breast reconstruction was adversely influenced by the barriers and perceptions of the surgery. The barriers and misperceptions of breast reconstruction are related to accessibility, availability, affordability, awareness, cost and fears cast on people about the surgery. Clinicians managing breast cancer patients should properly educate the patients. These hindrances could be mitigated by preemptive education through videos and social media. All governmental and non governmental agencies should be used to educate the populace.

Keywords: Breast reconstruction; Breast cancer surgery; Barriers and perception

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Citation: Ozinko MO, Udosen JE, Ukam JS, Ozinko AM (2020) Breast Cancer Surgery: Barriers and Perceptions of Breast Reconstruction in Post Mastectomy Patients in Southern Nigeria. J Aesthet Reconstr Surg Vol.6 No.3:13

Received: August 21, 2020; **Accepted:** September 14, 2020; **Published:** September 21, 2020

Introduction

Breast cancer is a common disease among women all over the world and Nigeria in particular. It affects about 12% of the women population [1]. Some of the women would have elected to undergo breast reconstruction which could have been a continuum of treatment of breast cancer. It has been shown that breast reconstructions improves patient satisfaction, psychosocial stressors, and provide an overall survival benefit for patients [2]. Based on the importance of breast reconstruction, the women's Health Act and Cancer Rights Act (WHCRA) was passed in 1998,

in America, which mandated universal health insurance coverage for breast reconstruction as part of the medical and surgical treatment of breast cancer [3,4].

Level of Evidence: 1

Despite the provision of this women health act, American women did not still go for breast reconstruction surgery until late. Some surgeons have postulated that the cause is multifactorial. Lack of awareness of breast reconstruction inspired the breast cancer patient education act in 2015 [5]. The purpose of this policy was rooted in patient education with the intention to inform women

of breast reconstruction availability and their right to undergo reconstruction, if so desired.

In a developing economy like Nigeria, surgeons have postulated that poverty, inadequate access to health care, lack of awareness for breast reconstruction and late presentation could be the reasons for the poor utilization of this service. It therefore becomes imperative for a qualitative study to be carried out in order to obtain better understanding. After recognizing the benefits of breast reconstruction and continuing issues surrounding patient knowledge, perception and utilization of this surgery, we then performed a focus group-based study. The purpose of the study was to identify patient barriers and perceptions to breast healthcare, perception of breast reconstruction, and how to improve access to information to subsequently bridge the knowledge gap in the region.

Materials and Methods

A prospective yet a qualitative study were carried out from January, 2016 to December, 2019. A total of 29 patients were recruited into the study from the University of Calabar Teaching Hospital and some private clinics in Calabar. The inclusion criteria were all women above 28 years of age to 60 years and had consented to our informed consent. All incomplete questionnaires were excluded. The participants were met on one-on-one basis while others were contacted on phone. The questionnaire was designed using the Likert scale to include breast health care, access to hospital, understanding breast reconstruction, and how to improve the dissemination of information as well as the participant's demographics. Each independent variable has some dependent variables. Each variable has some questions which had the options (SA-Strongly Agree, A-Agree, D-Disagree, SD-Strongly Disagree) which best describes the participant's response to the items.

The validity of the research instrument was made to undergo face validity. Face validity was carried out to ensure that the items are designed to meet the expectation of the study purpose. This

was done by submitting the questionnaire to the members of the group to make their inputs. The reliability of the instrument was measured. The corrected questionnaires were administered on ten women who were age between 40 and 50 years. The questionnaire was found to be reliable with reliability index of 76.

After the data were collected, a detailed content analysis was made from the variables. Descriptive statistics from the quantitative survey data were run using SPSS version 17(Chicago incorporated).

Results

A total of 29 women elected to participate in the study. The participants' demographics are summarized in **Table 1** below. The age range was between 28-60 years with the mean of 48±5years. Majority had household income less than N 100,000:00, which constituted 79.3% while 20.7% of participants lived above N 100,000:00. All participants completed primary and secondary school education but 24.1% (n=7) had tertiary education. Concerning the number of rooms they occupied, only 24.1% (n=7) lived in one bedroom flat. This showed the poverty level of the participants, vis-à-vis majority of the population.

The survey of focus-group participants concerning their access to Breast Reconstruction Surgery services which is shown in **Table 2**. The study showed a poor state of accessibility to Breast Reconstruction Services. The parameters for accessing health services as summarized by Penchansky and Thomas in 1881, which comprised of accessibility, affordability, availability, acceptability and accommodation, affected breast reconstruction surgery negatively.

The study focused on Breast Reconstruction Information as in **Table 3**. The participants had variable information that scared them from the surgery. They had some horrible stories, expensive cost and non inclusion in National Health Insurance Scheme (NHIS). Some participants could not accept undergoing the procedure because they have not seen a reconstructed breast.

Table 1 Summary of the participants' demographics.

Age range (n=29)	28-40 yrs 7 (24.1%)	41-50 yrs 13 (44.8%)	51-60 yrs 9 (31.1%)
Household income (n=29)	N 10,000= - 50,000= 4 (13.8%)	N 51,000= .-N 100,000= 19 (65.5%)	Above N 100,000= 6 (20.7%)
Educational level (n=29)	Primary sch. 29 (100%)	Secondary sch. 26 (89.7%)	Tertiary educ. 7 (24.1%)
No. of Rooms (n=29)	One bedroom 4 (34.5%)	Two bedroom 12 (41.4%)	One room flat 7 (24.1%)

The table shows low socioeconomic status with peak age range between 41-50 years.

Table 2 Summary of access to breast reconstruction surgery services.

Parameters	Yes	No
Awareness	10 (34.5%)	19 (65.5%)
Affordability	4 (13.8%)	25 (86.2%)
Accessibility	2 (6.9%)	27 (93.1%)
Availability	3 (10.3%)	26 (98.7%)
Accommodation	413.8%	25 (86.2%)

There is a correlation between poor accessibility with Penchansky and Thomas parameters

Table 3 Summary of breast reconstruction surgery information.

Description	Yes	No
Horror stories that scare them	22 (75.9%)	7 (24.1%)
It is expensive	27 (93.1%)	2 (6.9%)
Not included in NHIS	29 (100%)	-
Will you like to perform BR?	10 (34.5%)	19 (65.5%)
Have you seen a person after BR?	1 (3.4%)	28 (96.6%)
Do you like post reconstructed breast?	2 (6.9%)	Not seen

NHIS: National Health Insurance Scheme, BR: Breast Reconstruction. This information does not favour breast reconstruction

Most general surgeons were of the opinion that late presentation is the main challenge to breast reconstruction. They added that most of the patients presented at advanced stage of the breast cancer with low survival rate. The participants were of the opinion that preemptive education, television and video method and the use of social media as well as you-tube would go a long way to educate them and improve awareness as well as the acceptance of the procedure.

Discussion

The discussion would be grouped into some headings to enable us appreciate it better.

Demographics

We recruited 29 participants with age range between 28 and 60 years, with mean age of 48±5 years. Majority were post menapausal women for which the nature of their breast might not be too important. Most of them had primary and secondary school education with only 31.1% (n=7) having tertiary education. A good number of the participants lived in one or two rooms. This showed that the overall low per capital income may be a setback.

Accessibility to breast reconstruction services

The parameters for assessing access to Health Care Services were summarized by Perchansky and Thomas in 1881 [6], which comprised of accessibility, affordability, availability, acceptability and accommodation. Accessibility, viz-a-viz transportation to the health care is a potential barrier in the West African sub-region due to the deplorable state of the roads. Availability refers to appropriate supply in the volume of care needed for a given population. Many tertiary health institutions have not yet gotten the necessary manpower. Affordability describes concordance among consumers' financial status, socioeconomic status, insurance status and price for health services. The cost of breast reconstruction is still on the high side. Accommodation describes the level to which services have been built to accept patients (e.g. walk-in-clinics, appointment scheduling systems) and the relationship between health care providers and patients. The institutions have to provide the necessary material and instruments for this surgery. Several studies [7,8] have shown that poor accessibility of health care services to breast reconstruction surgery have been the militating factor to improved patronage to breast reconstruction surgery.

Breast reconstruction surgery information

How much information have the people concerning breast

reconstruction? The participants expressed fear of the surgery, exorbitant cost, non inclusion in National Health Insurance Scheme (NHIS), and not knowing somebody with a reconstructed breast. A Canadian study [9] showed that modifiable barriers to breast reconstruction included knowledge gaps and misperceptions held by referring physicians and patients. Another study evaluated the association between the information, advice and counseling patients receive about breast reconstruction and their desire to undergo the procedure in an underserved health setting. They concluded that the amount of information and counseling about Breast reconstruction significantly correlated with women's interest in the procedure. Thus, the advocacy should be on massive public education using governmental and nongovernmental means to achieve it.

The clinician factors

Some clinicians do not advice and counsel breast cancer patients for breast reconstruction as a continuum of their care. Also fewer clinicians refer breast cancer patients for reconstruction, which was skewed to the female physicians. Probably, the female doctors would have better understanding of the value of breast reconstruction in the life of the women folk. A study by Basim et al. [10] recommended establishing National efforts to educate on the benefits of breast reconstruction and establishing a tumour conference protocol on breast reconstruction including all involved specialties e.g. oncologist, general and plastic surgeons. In order words, there should be a breast surgery team in each teaching hospital that will treat the breast cancer patient from the first consultation to post reconstruction surgery period. In another study from Vietnam, [11] it concluded that lack of information about reconstruction was the main barrier among the Vietnamese women. The study reinforced the need of Vietnamese doctors to recommend the breast reconstruction surgery and help the women to make informed decision about reconstruction following mastectomy as treatment for their breast cancer patients.

Conclusion

Breast cancer is a common disease amongst us. . The barriers and misperceptions of breast reconstruction are related to accessibility, availability, affordability, awareness, cost and fears cast on people about the surgery. Clinicians managing breast cancer patients should properly educate the patients. These hindrances could be mitigated by preemptive education through videos and social media. All governmental and non governmental

agencies should be used to educate the populace. Each teaching hospital should form breast surgery team consisting of the general and the reconstructive surgeons with the oncologists. All the stages of breast cancer and reconstructive surgeries should be included in the National Health Insurance Scheme [NHIS].

Funding

No financial assistance from any source.

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Conflict of Interest

None.

Informed Consent

This is obtained before data collection and ethical consent was obtained.