

# Socio-Demographic Factors of Self-Esteem and Sexual Satisfaction in Patients after Mastectomy

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## Abstract

**Background:** There have been devastating effects of mastectomy on a woman's feelings of attractiveness. This study investigated self-esteem and sexual satisfaction among cancer patients undergoing mastectomy considering the prevalence of breast cancer in Nigeria. This Ex-post facto study aimed to describe the socio-demographic factors on the self-esteem and sexual satisfaction of cancer patients following mastectomy.

**Methods:** Purposive sampling technique was adopted to select one hundred and twenty (120) post-surgical patients who had mastectomy. Structured questionnaire designed for data collection contained adapted standardized scales of self-esteem (using Rosenberg Self-Esteem Scale), and sexual satisfaction (using the 25-item Index of Sexual Satisfaction). Data gathered from surgical patients were processed using statistical package for the social science (SPSS) version 21 and expressed in frequency table. One hypothesis was tested using t-test for independent sample at 95% confidence level.

**Results:** The study revealed that the patients had varying levels of self-esteem. None of the respondents within the age ranges of 50-59 years and, 60 years above had low self-esteem following mastectomy. Majority (93.3%) of the respondents had moderate sexual satisfaction, few (5.0%) of them had high sexual satisfaction, while minority (1.7%) of them had low sexual satisfaction. The hypothesis tested showed significant relationship in the effects of mastectomy on self-esteem ( $p=0.012$  at 95% level of confident), while there is no significant relationship between the effects of mastectomy on sexual satisfaction ( $p=0.339$ ).

**Conclusion:** Age-related concerns of self-esteem and sexual satisfaction were experienced following the mastectomy.

**Keywords:** Breast cancer, Mastectomy, Self-esteem, Surgical patients, Sexual satisfaction.

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## I. Introduction

Breast cancer is the most common cancer in women, accounting for up to 15% of all cancer deaths. It is the fifth most common cause of death in women<sup>(1; 2; 3)</sup>. Diagnosis of breast cancer can be devastating and can trigger several adverse reactions for the majority of women.

Bodily changes that a cancer patient can undergo due to the disease and treatment can affect self-esteem. These include but are not limited to appearance alterations (e.g., hair loss, scarring, and swelling), sensory changes (e.g., pain, numbness) and functional impairment (e.g., dysphagia, dysarthria, impotence). The emotional needs of survivors shift as they move through diagnosis and treatment, treatment recovery, and into the years thereafter (4; 5; 6), making understanding patients' emotional responses across the timeline important.

The survival rates of women with breast cancer are improving, which can be attributed to faster diagnosis and medical improvements (7; 8). Consequently, the number of women living with the residual consequences of the disease and its treatment is growing. Studies show that breast surgery, regardless of type, mastectomy or lumpectomy, has a major impact on both health and psychosocial life, affecting patient's femininity, body image and indirectly her behaviour and social integration (9). Also, Hopwood and colleagues (2007) investigated the effects on QOL of age on body image. They showed that age had significant worse effects on quality of life of women younger than 50 than older women (10).

## II. Methods

**Research design, Sample Size and Setting:** The study is a descriptive Ex-post facto research and quantitative design was adopted to describe the implications of socio-demographic factors on the self-esteem and sexual satisfaction of patients following mastectomy at Obafemi Awolowo University Teaching Hospitals Complex,

Ile-Ife, Nigeria between December, 2018 and February, 2019. Sample size was determined using Taro Yamane formula and purposive total enumeration sampling technique was adopted to select all the available surgical patients (120 at the Surgical Out-Patient Unit of OAUTHC, Ife Hospital Unit, Ile-Ife).

**Measurements:** The instrument utilized for data collection were a developed demographic data form consisting of six items and used to collect data about the surgical patients demographic data. The Self-esteem, and sexual satisfaction data were collected using Rosenberg Self-Esteem Adjustment Scale-6 (BASE-6) and Index of Sexual Satisfaction (ISS); adapted instrument which contained validated, closed-ended questions from standardized scales for variable measurement respectively. Rosenberg Self-Esteem Scale possesses high ratings in reliability; internal consistency was 0.77, minimum Coefficient reproducibility was at least 0.90 (11).

**Data collection:** The questionnaires were taken to the Surgical Out-Patient department of the hospital during their clinic days (Monday, Tuesday and Thursday) by the researcher. The consent form was given to the target group who are sampled from the out-patient clinic of the hospital. After giving their consent following the explanation of the purpose of the study, a questionnaire was given to the respondent to fill. Clarifications were given where necessary. The filling of the questionnaire took about 10-15 minutes by the clients. Through the use of the questionnaire, necessary data were collected to aid the findings of this research work.

**Data analysis:** Data gathered from surgical patients were processed using statistical package for social science (SPSS) version 21. Frequency table was constructed and data were expressed on it. One research question was answered using descriptive statistics of percentage and one hypothesis was tested using inferential statistics of student t - test at 0.05 level of significance.

**Ethical Considerations:** Ethical clearance was obtained from the management of Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Osun State, Nigeria (ERC/2018/09/08) before the study was conducted. The surgical patients were ad equally informed about the study and consent was obtained before data was collected. Information obtained from the surgical patients was kept confidential and the right to withdraw from the study at any point by the surgical patients was respected with no consequences suffered. No harm was suffered by the surgical patients during the research study.

### III. Results

#### Socio-demographic data of surgical cancer patients

**Table i: Frequency and percentage showing socio-demographic data of surgical patients**

Demographic Data	Frequency	Percentage	Mean value
<b>Age</b>			
30 – 39	16	13.4	
40 – 49	52	43.2	2.32
50 – 59	50	41.7	
60 and Above	2	1.7	
<b>Religion</b>			
Islamic	40	33.3	
Christianity	80	66.7	1.66
<b>Educational level</b>			
Primary education	12	10.0	
Secondary education	58	48.3	2.33
Tertiary education	50	41.7	
<b>Occupation</b>			
Civil service	60	50.0	
Artisan	10	8.3	1.95
Trading	50	41.7	
<b>Marital Status</b>			
Married	114	95.0	
Widow	6	5.0	2.03
<b>Year of surgery</b>			
One year ago	32	26.7	
Two years ago	78	65.0	1.81
Three years ago	8	6.6	
Four years ago	2	1.7	

Field survey, 2019.

Table i shows that majority (43.2%) of the respondent were between age 40 – 49years, few (41.7%) of them were of the age 50 – 59years, very few (13.4%) of them were of the age 30 – 39years, while minority (1.7%) of them were 60years and above, with the mean value of 2.32. It was also deducted that, majority (66.7%) of the respondents were Christian while minority (33.3%) of them were practicing Islamic religion, with the mean value of 1.66. Also, majority (48.3%) of the respondent had secondary school education, few (41.7%) of them had tertiary education, while minority (10.0%) of them had primary education, with the mean value of 2.33.

Moreover, majority (50.0%) of the respondent were civil servant, few (41.7%) of them were into trading, while minority (8.3%) of them were Artisan, with the mean value of 1.95. It was also deducted that, majority (95.0%) of the respondent were married while minorities (5.0%) of them were widow, with the mean value of 2.03.

Furthermore, majority (65.0%) of the respondent had their surgery two years ago, few (26.7%) of them had their surgery one year ago, very few (6.6%) of them had their surgery three years ago, while minority (1.7%) of them had their surgery four years ago, with the mean value of 1.81.

### 3.2. Effect of Mastectomy on Self Esteem

Demographic factor	Low N(%)	Moderate N(%)	High N(%)	DF	P-value ≤ 0.05
<b>Age</b>					
30 – 39	2(12.5)	8(50.0)	6(37.5)	6	0.076
40 – 49	2(3.8)	14(26.9)	36(69.2)		
50 – 59	0(0.0)	14(28.0)	36(72.0)		
60 and Above	0(0.0)	0(0.0)	2(100.0)		
<b>Religion</b>					
Islamic	0(0.0)	8(20.0)	32(80.0)	2	0.040*
Christianity	4(5.3)	28(36.8)	44(57.9)		
<b>Educational level</b>					
Primary education	0(0.0)	0(0.0)	12(100.0)	4	0.060
Secondary education	2(3.7)	22(40.7)	30(55.6)		
Tertiary education	2(4.0)	14(28.0)	34(68.0)		
<b>Occupation</b>					
Civil service	4(7.1)	16(28.6)	36(64.3)	4	0.311
Artisan	0(0.0)	4(40.0)	6(60.0)		
Trading	0(0.0)	16(32.0)	34(68.0)		
<b>Marital Status</b>					
Married	4(3.5)	34(29.8)	76(66.7)	2	0.104
Widow	0(0.0)	2(100.0)	0(0.0)		
<b>Year of surgery</b>					
One year ago	0(0.0)	8(25.0)	24(75.0)	6	0.144
Two years ago	4(6.1)	24(36.4)	38(57.6)		
Three years ago	0(0.0)	0(0.0)	8(100.0)		
Four years ago	0(0.0)	0(0.0)	2(100.0)		

\* Significant at 95% confident interval, DF – Degree of freedom

Field survey, 2019.

### Table ii: Effect of mastectomy on self esteem

Table ii shows that majority (80.0%) of the respondent who were practicing Islamic religion had high self – esteem, while minority (20.0%) of them had moderate self – esteem. In the same vein, majority (57.9%) of the respondent who were practicing Christianity as a religion had high self – esteem, few (36.8%) of them had moderate self – esteem, while minority (5.3%) of them had low self – esteem, and it is significant at 95% confident interval with the p –value of 0.040.

### 3.3. Effect of Mastectomy on Sexual Satisfaction

Table iii reveals that majority (87.5%, 88.5%, 100.0%) of the respondents with the age rages, 30 – 39 years, 40 – 49 years, 50 – 59 years, and 60 years and above respectively, were of moderate sexual satisfaction, few (12.5%) of them with the age range 30-39 years were of low sexual satisfaction, while minority (11.5%) of them with the age range 40 –49 years were of high sexual satisfaction, and it is significant at 95% level of confident with the p – value of 0.002.

In the same vein, majority (100.0%, 96.3%, 88.0%) of the respondents with primary school education, secondary school education and tertiary education respectively were of moderate sexual satisfaction respectively; few (12.0%) of them with tertiary education were of high sexual satisfaction, while minority (3.7%) of them with secondary school education were of low sexual satisfaction, which are significant at 95% level of confident with the p – value of 0.033.

**Table iii: Effect of Mastectomy on Sexual Satisfaction**

Demographic factor	Low N(%)	Moderate N(%)	High N(%)	DF	P-value ≤ 0.05
<b>Age</b>					
30 – 39	2(12.5)	14(87.5)	0(0.0)		
40 – 49	0(0.0)	46(88.5)	6(11.5)	6	0.002*
50 – 59	0(0.0)	50(100.0)	0(0.0)		
60 and Above	0(0.0)	2(100.0)	0(0.0)		
<b>Religion</b>					
Islamic	0(0.0)	36(90.0)	4(10.0)		
Christianity	2(2.6)	72(94.7)	2(2.6)	2	0.145
<b>Educational level</b>					
Primary education	0(0.0)	12(100)	0(0.0)		
Secondary education	2(3.7)	52(96.3)	0(0.0)	4	0.033*
Tertiary education	0(0.0)	44(88.0)	6(12.0)		
<b>Occupation</b>					
Civil service	2(3.6)	50(89.3)	4(7.1)		
Artisan	0(0.0)	10(100.0)	0(0.0)	4	0.494
Trading	0(0.0)	48(96.0)	2(4.0)		
<b>Marital Status</b>					
Married	2(1.8)	106(93.0)	6(5.3)	2	0.927
Widow	0(0.0)	2(100.0)	0(0.0)		
<b>Year of surgery</b>					
One year ago	0(0.0)	30(93.8)	2(6.2)		
Two years ago	2(3.0)	62(93.9)	2(3.0)	6	0.245
Three years ago	0(0.0)	6(75.0)	2(25.0)		
Four years ago	0(0.0)	2(100.0)	0(0.0)		

\* Significant at 95% confident interval, DF – Degree of freedom

**Hypothesis: There is no significant relationship between the effects of mastectomy on self-esteem and sexual satisfaction.**

**Table iv: ANOVA**

	Sum of Squares	Df	F	Sig.
Self – esteem	0.416	1	6.586	0.012*
Sexual Satisfaction	0.030	1	0.921	0.339

\* Significant at 95% confident interval

Table iv shows that there is significant relationship between the effects of mastectomy on self –esteem, with the significant value of 0.012 at 95% level of confident, while there is no significant relationship between the effects of mastectomy on sexual satisfaction (0.339). It implies that the null hypothesis which says that there is no significant relationship between effects mastectomy on self–esteem and sexual satisfaction of surgical patients has to be rejected.

#### **IV. Discussion**

The scope of the study was on 120 adult surgical patients who had elective mastectomy procedures during their hospital admission at Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria.

The findings in the study showed that there were more surgical patients of between 49-54 years who presented in the hospital for mastectomy in the study area. There are many of the respondents who have their highest educational background at secondary school level as well as first degree (university) level and above. The researcher was able to find majority of surgical patients whose year of surgical procedures were two years

ago, few (26.7%) of them had their surgery one year ago, very few (6.6%) of them had their surgery three years ago, while minority (1.7%) of them had their surgery four years ago.

The study revealed that the patients had varying levels of self-esteem. Majority (66.7%) of the respondents had high self – esteem, few (30.0%) of them had moderate self – esteem, while minority (3.3%) of them had low self – esteem, with a mean value of 2.63. None of the respondents within the age ranges of 50-59 years and, 60 years above had low self-esteem following mastectomy. They reported moderate and high levels of self-esteem respectively. Manos, Sebastian, Beuno, Mateos and de la Torre (2007) described same report in their study with the mean self-esteem higher among women aged 43-55 years than women who are younger. Same was reported by Thompson (1972). This explains the importance of the age of the patients when mastectomy is done on the manifestations of their levels of self-esteem. There is a varying level of self-esteem in the respondents who are married with 3.5% having low self-esteem, 29.8% having moderate self-esteem and 66.7% having high self-esteem. All the widows reported moderate levels of self-esteem. There was little literature in sight to explain these patients' responses except that of Hopwood and colleagues (2007) who investigated the effects on QOL of age on body image. They found significant effects on quality of life of women younger than 50 having worse quality of life in respect to body image than older women (10).

Majority (93.3%) of the respondent had moderate sexual satisfaction, few (5.0%) of them had high sexual satisfaction, while minority (1.7%) of them had low sexual satisfaction, with the mean value of 2.03. Few (12.5%) of them with the age range 30 -39 years were of low sexual satisfaction, while minority (11.5%) of them with the age range 40 – 49 years were of high sexual satisfaction, and it is significant at 95% level of confident with the p – value of 0.002. The results explained the fact that mastectomy affected the sexual satisfaction of the women. This was in line with other studies (12; 13; 14).

**Hypothesis 1:** There is no significant relationship between effects of mastectomy on self-esteem and sexual satisfaction of surgical patients.

There is a significant relationship between effects of mastectomy on self-esteem (0.012) and but no significant relationship on sexual satisfaction (0.339). It implies that the null hypothesis which says that there is no significant relationship between effects of mastectomy on self-esteem and sexual satisfaction of surgical patients has to be rejected. The report of this study does not go in line with previous studies on the relationship between the effect of mastectomy on sexual satisfaction of surgical patients (15; 16; 17).

The study reveals that the patients had varying levels of self-esteem. The expression of concerns of self-esteem by patients are age-dependent with younger women having greater concerns and low self-esteem following mastectomy. The results explained the fact that mastectomy affected the sexual satisfaction of the women but majority of them had moderate level of sexual satisfaction.

## V. Conclusion

The surgical patients who had mastectomy experienced concerns of self-esteem and sexual satisfaction following the procedure. There is need for intervention strategies to help the surgical patients effectively adjust to the aftermath of mastectomy from the beginning of the diagnosis of breast cancer.

## VI. Recommendations

In view of the findings from this study, the following are recommended;

1. The surgical patients, especially the married and the young adults, should be duly informed to gain full awareness of the aftermath of the surgical intervention in the care of breast cancer as it may affect their self-esteem and sexual satisfaction.
2. Interventions focusing on effective psychological adjustment should be designed by the healthcare provider and patient-entered for a good outcome of surgical procedure. The planning should start from the assessment of the patient's possible concerns with body image, physical attractiveness, self-esteem, sexual satisfaction and psychological adjustment.
3. Healthcare provider should advocate for the support of patient's husband and family support for effective psychological adjustment after the breast surgery.
4. Comprehensive preoperative teaching should be a prerequisite for a well-prepared surgical patient. All surgical patients should benefit from it and a conducive environment provided for its administration.
5. Preoperative visits of the preoperative nurses should be effectively encouraged to enhance the preoperative teaching and reinforce the information given to patients before surgery. This will also allay the patients' anxiety and skills to cope with the post-operative challenges.

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