

Cosmetic Surgery Procedures Accessed by Nigerian Women at a Single Private Cosmetic Surgery Practice: A Retrospective Review

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ABSTRACT

Background: Little is known about the cosmetic surgery procedures sought by Nigerian women. **Aim:** We sought to report the proportion of cosmetic surgery procedures accessed by Nigerian women and determine any associations between the demographics and cosmetic procedures accessed. **Patients and Methods:** A retrospective review was conducted between January 2020 and July 2021 of all cosmetic surgery procedures at a single private cosmetic surgery practice. Data were analyzed using means, Mann–Whitney U-test, chi square test, and Fisher’s exact test as appropriate. The statistical significance was set at $P \leq 0.05$. **Results:** Of the 392 consultations for cosmetic procedures, 245 (62.5%) patients accessed cosmetic surgery. Most were women (239 (97.6%)) and single (178 (72.7%)). The median age of the patients at surgery was 29.0 years (IQR 26–33), the median weight was 78.8 kg (IQR 71.4–88.8), and the median body mass index (BMI) was 28.1 (IQR 25.7–32.3). Liposuction was the procedure accessed by nearly all the patients (224 (91.4%)). Next to this was bilateral buttock augmentation (199 (81.2%)). Other cosmetic procedures such as tummy tuck, facial cosmetic surgery, umbilicoplasty, and labiaplasty each constituted less than three percent of the patients. The abdomen (224 (91.4%)), back (219 (89.4%)), and arms (79 (32.2%)) were the most common regions of the body sought for liposuction, while the calves (2 (0.8%)) were the least. Liposuction of the arms was associated with the BMI ($p < 0.003$). **Conclusion:** Liposuction and bilateral buttock augmentation are the most common cosmetic surgery procedures accessed by this cohort of Nigerian women.

KEYWORDS: *Bilateral buttock augmentation, cosmetic surgery, liposuction, Nigerian woman, private cosmetic practice*

INTRODUCTION

Worldwide, there is a yearly increase in cosmetic procedures.^[1,2] In the year 2019, the top five countries for cosmetic procedures were the United States, Brazil, Japan, Mexico, and Italy.^[2] In the United States, 15.6 million cosmetic procedures were performed in the year 2020 and nearly a fifth of these were cosmetic surgical procedures.^[1] The worldwide statistics for cosmetic surgical procedures has the top five procedures such as breast augmentation, liposuction, eyelid surgery, abdominoplasty, and rhinoplasty.^[2] Brazil had the most cosmetic surgical procedures, while the United States had the most nonsurgical cosmetic procedures. The only

low-resource nation to make the top-ten list for cosmetic procedures was India.^[2]

With social media making the world a global village, there is an increase in the awareness of cosmetic surgery and interest in accessing cosmetic surgery in Nigeria. It appears that previously opined barriers to cosmetic surgery such as culture and religion and fund

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limitation are being overcome.^[3-5] With increasing access to cosmetic surgery, documentation of these procedures would improve awareness and help in health planning, outcomes research, and regulation. We therefore sought to determine the cosmetic procedures accessed by women in Nigeria at a single private nonacademic cosmetic surgery facility.

METHODS

Setting/study design/participants

It was a nineteen-month retrospective study. The study was conducted at a nonacademic private cosmetic surgery hospital. All patients who requested cosmetic surgery between January 2020 and July 2021 were included in the study. De-identifiable socio-demographic data and clinical information were obtained from the hospital consultation registers, patients' case notes, and operation registers. A number of surgeries were collated based on the region of the body in which surgery was performed and not on a number of sessions in the operating room. This study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendment.

Data analysis

De-identified data were entered into an Excel sheet. Socio-demographic and surgery data were analyzed using the Statistical Software for Social Sciences (SPSS) version 20.0. Categorical variables were presented as frequencies and percentages, while continuous variables were presented as the median and interquartile range because they were not normally distributed. The normality of the continuous variables was tested with the Shapiro–Wilk test. Only the most common surgeries performed were analyzed for the test of association with the patient's characteristics. The Mann–Whitney U-test, chi–square test, and Fisher's exact test were used to test the association between the patient's characteristics and the types of surgeries accessed.

RESULTS

There were 392 consultations for cosmetic procedures within the study period. Of these, 245 (62.5%) patients accessed cosmetic surgery. Most were women (239 (97.6%)) and single (178 (72.7%)). The median age of the patients at surgery was 29.0 years (IQR 26–33), the median weight was 78.8 kg (IQR 71.4–88.8), the median height was 1.7 meters (IQR 1.6–1.7), and the median body mass index (BMI) was 28.1 (IQR 25.7–32.3). Most of the patients were either overweight (N = 106 (43.3%)) or obese (N = 104 (42.4%)). Almost all the participants

Table 1: Socio-demographic characteristics of the people accessing cosmetic surgery

Variable	Frequency	Percentage
Gender		
Female	237	96.7
Male	8	3.3
Marital status		
Married	52	21.2
Single	178	72.7
Widowed	1	0.4
Divorced	1	0.4
Missing	13	5.3
Occupational status		
Employed	232	94.7
Unemployed	13	5.3
Occupational categories		
Professional—non-health	34	13.9
Professional—health	9	3.7
Beauticians/modeling	48	19.6
Business	129	52.7
Student	13	5.3
Not stated	11	4.5
BMI category		
Healthy weight	35	14.3
Overweight	106	43.3
Obese	104	42.4

were employed (N = 232 (94.7%)). Most (129 (52.7%)) of the women were into business, and the least type of occupation represented is health-related professional. There were 811 cosmetic surgery procedures performed within the study period. Liposuction (N = 568 (70.0)) was overwhelmingly the most common cosmetic surgery performed. Next to this was buttock augmentation (N = 199 (24.5%)). There were 31 repeat cosmetic surgeries. The rate of repeat surgeries was 3.8% with liposuction of the back accounting for the greater number of 11 (35.5%). The socio-demographic characteristics are shown in Table 1, while the types of surgeries accessed are seen in Table 2.

Association between the patient's socio-demographic characteristics and types of surgeries accessed

There was no association between the age of the patients and liposuction of any region of the body. There was likewise no association between the age of the patient and bilateral buttock augmentation. The weight of the patients who had liposuction of the abdomen, back, and thigh and who had bilateral buttock augmentation was less than those who did not. These differences were, however, not statistically significant. Patients who had liposuction of the arms weighed significantly more than those who did not ($P = 0.001$). The BMI was also

statistically significantly associated with liposuction of the arm [Table 3]. There was a significantly higher number of patients who were obese and had liposuction of the arms ($P = 0.003$). Significantly more patients who were overweight as compared to those who were either of healthy weight or obese had liposuction of the thigh ($P = 0.02$) [Table 4]. The patient's marital status bore no relationship with the type of cosmetic surgery she received.

Table 2: Characteristics of cosmetic surgeries done

Variable	Frequency	Percent
Cosmetic surgeries		
Liposuction	568	70.0
Buttock augmentation	199	24.5
Breast procedures	21	2.6
Chin lift	5	0.6
Brow lift	1	0.1
Rhinoplasty	1	0.1
Tummy tuck	11	1.4
Scar revision	3	0.4
Umbilicoplasty	1	0.1
Labiaplasty	1	0.1
Total	811	100.0
Region of the body for liposuction		
Abdomen	224	39.4
Back	219	38.6
Arm	79	13.9
Thigh	34	6.0
Face	5	0.9
Calf	2	0.4
Axilla	5	0.9
Total	568	100
Repeat surgeries		
Liposuction of abdomen	8	25.8
Liposuction of back	11	35.5
Liposuction of arm	1	3.2
Liposuction of thigh	2	6.5
Breast surgery	2	6.5
Bilateral buttock augmentation	7	22.6
Total	31	100

DISCUSSION

This study sought to determine the type of cosmetic surgery procedures being accessed by Nigerian women at a single private practice nonacademic facility. The study has shown that liposuction and bilateral buttock augmentation were the predominant cosmetic surgery procedures accessed. The women were young, single, and in business-related occupations. Women who were obese were significantly more likely to have liposuction of the arms. Worldwide, the top five cosmetic surgery procedures are breast augmentation, liposuction, eyelid surgery, abdominoplasty, and rhinoplasty.^[2] In the United States, breast augmentation still tops the list followed by liposuction.^[1] Interestingly, women in this study are requesting more liposuction and buttock augmentation. Buttock augmentation does not top the list in the worldwide data. A survey of Nigerian plastic surgeons' practice of cosmetic surgery in 2020 by Nnadozie *et al.*^[4] listed scar revision, abdominoplasty, and breast reduction as the most common cosmetic surgery procedures. They opined that there was poor acceptability of cosmetic surgery in Nigeria. This study, however, reveals that this may not be. This difference between Nnadozie's study and ours arises due to the different study sites. Our study was performed in a private cosmetic surgery facility, and the previous study surveyed plastic surgeons working mainly in public hospitals. Cosmetic surgery is highly sought after in the private sector.^[6] The possible reasons why cosmetic surgery is more in private than public hospitals in Nigeria need further exploration. It may, however, be due to ease of accessing services, privacy, and availability of the requisite equipment in private as compared to public hospitals. A study by Prendergast *et al.*^[7] in the United States investigated the differential trends in racial preferences for cosmetic procedures. They found that while the request for cosmetic surgery procedures among whites declined, the request for cosmetic surgery procedures among racial and ethnic minorities increased.

Table 3: Mann–Whitney U-test of association between patient's characteristics and request for liposuction and bilateral buttock augmentation

Characteristics	Accessed cosmetic surgery	Liposuction				Bilateral buttock augmentation
		Abdomen	Arm	Back	Thigh	
Age (years)	Yes	29.0	29.5	29.0	27.0	29.0
	No	30.0	28.0	29.0	29.0	30.0
	<i>P</i>	0.1	0.3	0.3	0.1	0.2
Weight (kg)	Yes	78.8	84.0	78.7	76.7	78.0
	No	80.5	77.3	85.0	79.9	86.4
	<i>P</i>	0.5	0.001	0.5	0.2	0.08
BMI	Yes	28.2	30.5	28.2	28.1	27.8
	No	27.4	27.4	28.0	28.2	30.1
	<i>P</i>	0.4	0.001	0.7	0.2	0.07

Table 4: Bivariate analysis of patient's characteristics with request for liposuction or bilateral buttock augmentation

Characteristics	Liposuction								Bilateral buttock augmentation	
	Abdomen		Arm		Back		Thigh		Yes (n (%))	No (n (%))
	Yes (n (%))	No (n (%))	Yes (n (%))	No (n (%))	Yes (n (%))	No (n (%))	Yes (n (%))	No (n (%))		
BMI category										
Healthy weight	29 (12.9)	6 (30.0)	6 (7.6)	29 (17.6)	29 (13.2)	6 (24.0)	4 (11.8)	30 (14.4)	28 (14.1)	7 (15.6)
Overweight	100 (44.6)	6 (30.0)	28 (35.4)	78 (47.3)	99 (45.2)	7 (28.0)	21 (61.8)	85 (40.7)	92 (46.2)	14 (31.1)
Obese	95 (42.4)	8 (40.0)	45 (57.0)	58 (35.2)	91 (41.6)	12 (48.0)	9 (26.5)	94 (45.0)	79 (39.7)	24 (53.3)
<i>P</i>	0.1		0.003		0.2		0.02		0.2	
Marital status										
Married	45 (21.3)	6 (33.3)	15 (20.5)	36 (23.1)	43 (20.9)	8 (34.8)	4 (12.9)	47 (23.9)	38 (20.3)	13 (31.0)
Single	166 (78.7)	12 (66.7)	58 (79.5)	120 (76.9)	163 (79.1)	15 (65.2)	27 (87.1)	150 (76.1)	149 (79.7)	29 (69.0)
<i>P</i>	0.2		0.7		0.1		0.4*		0.1	

*Fisher's exact test

Clearly, populations previously unaware or with low acceptance of cosmetic surgery like ours are now accessing cosmetic surgery. The female preponderance for cosmetic surgery of over 90% seen in our study is similar to that seen in the United States^[1] and Iran.^[6] This differs from countries like Japan where more men access cosmetic surgery.^[8] The cohort of Nigerian women having cosmetic surgery in this study is younger than the reported age for accessing cosmetic surgery in Japan at 35 years^[8] and the United States at 48 years.^[7] Countries such as Saudi Arabia (20–40 years) and Iran (30–39 years),^[6] however, have younger women accessing cosmetic surgery similar to our study.^[6,9] Although the women in Saudi Arabia^[9] are young like in our study, most of these women were married. Similarly, in a study from the United States, married women were more likely to undergo cosmetic surgery.^[10]

These studies differ from the findings in our study where most of the women were single. Abubakar *et al.*^[5] in an earlier study from Nigeria had identified an increased awareness of cosmetic surgery among undergraduate students who were single than those who were married.

In Iran, half of the women seeking cosmetic surgery were married.

Cosmetic surgery is expensive and not covered by health insurance. It is therefore not surprising to find that nearly all the women in this study were employed although we could not further investigate the source of funding for the surgeries. Other studies have reported that women who have cosmetic surgery are employed and belong to the upper class.^[6,7,11] Adedeji *et al.*^[3] had reported that the disposition of health workers to cosmetic surgery was low despite a high awareness. This finding is reflected in our study where health-related professionals were the least represented.

Limitations of the study

Due to the retrospective nature of the study, we were unable to have more information such as parity and its influence on the choice of cosmetic surgery. We were also unable to further explore the source of funding for cosmetic surgery.

CONCLUSION

Liposuction and buttock augmentation are the main cosmetic surgery procedures accessed. Most patients were young and single women. This study has opened further areas for research such as prospective multicenter studies on cosmetic surgery and the determination of the impact of these procedures on the quality of life of these women.

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Conflicts of interest

There are no conflicts of interest.

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