

Knowledge, Determinants of Attitude and Willingness for Cosmetic Surgery among Online Media Users in Nigeria

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Abstract

Cosmetic surgery has become popular in both developed and developing countries. The aim of this study is to identify the level of knowledge, determinants of attitude, and willingness for cosmetic surgery among online media users in Nigeria. A semi-structured online questionnaire was designed on Google forms and was forwarded to respondents via the investigator's social media networks (Email, WhatsApp, Facebook). Data on socio-demographic characteristics, level of knowledge, attitude, and willingness for cosmetic surgery was collected from one hundred and ninety-seven online users and analyzed using SPSS version 20.0. P-value less than or equal to 0.05 was taken as significant. The mean age of the respondent was 28.0 ± 7.1 years with a male to female ratio of 1:1.4. The majority (91.9%) of the respondents had good knowledge of cosmetic surgery, but 53.0% of the respondents have a positive attitude to cosmetic surgery. More than three-quarters (77.7%) were unwilling to have cosmetic surgery, and satisfaction with body image was the most frequent reason stated. The younger age group, respondents that are Christians, and personal income of above ₦1,000,000 (\$2,595.63) per annum were predictors of a positive attitude to cosmetic surgery. The respondents had good knowledge of cosmetic surgery. However, the attitude towards cosmetic surgery was relatively poor. Factors such as age, religion, ethnic affiliation, and income were important determinants of the attitude towards cosmetic surgery.

Keywords: Cosmetic Surgery, Knowledge, Determinant of Attitude, Nigeria.

Introduction

Cosmetic surgery is a subspecialty of Plastic surgery that focuses on enhancing the aesthetic appearance of the prospective client. The range

of surgeries involves all the anatomical structures of the body [1, 2]. Techniques or practices designed to improve appearance date back to the time of the Pharaohs [2]. The advancement in information transfer via

multimedia such as Plastic surgery reality television shows and the internet has led to an increased level of awareness about cosmetic surgery. Modern telecommunication has increased the demand for cosmetic surgery, as well as its popularity in both developed and developing countries [3-7]. The other factors that have contributed to the increased demand for cosmetic surgery appear to be an increase in the socioeconomic status of individuals in parts of the developing world as well as the changing perception of “beauty” in the modern world [8-10].

Previous literatures have identified several factors affecting the attitude towards cosmetic surgery. These factors include gender, background understanding of what cosmetic surgery entails, interpersonal and self-esteem issues, type of cosmetic surgery desired, cultural influences, and socio-economic status [11, 12]. In terms of gender, it is shown that females seek cosmetic surgery more than males, however there is an increasing number of males contemplating cosmetic surgery [13-15].

The findings from the Nigerian authors suggest that there is a high level of awareness concerning cosmetic surgery however, the willingness of the respondents to subject themselves to cosmetic surgery is low, these studies were conducted amongst categories of relatively homogenous respondents (health workers, bankers, undergraduate university students) using structured self-administered questionnaires [9, 16, 17]. In India, a developing country like Nigeria, a study conducted amongst rural women in central India showed that the majority of respondents were aware of cosmetic surgery via television, but a significant proportion had a misconception about what it entailed, a good number of the respondents were women of marriageable age who desired to improve their prospects of getting married [8].

This study was carried out among heterogeneous groups in Nigeria using an online survey form. The study aimed to assess

the knowledge, determinants of attitude, and willingness for cosmetic surgery amongst digital media users in Nigeria. It is hoped that findings from the study will provide additional background information for the planning and improvement of cosmetic surgery services in the country.

Methodology

This cross-sectional study was carried out online and included Nigerian citizens who were residents in the country accessible via social media networks, i.e., WhatsApp, Facebook, and emails of the investigators at the time of the survey. The survey was carried out between January 2017 and January 2018 and involved 197 online respondents. A semi-structured online questionnaire was designed on the Google form. Link generated from the Google form was sent to the respondents via electronic media, and they were asked to participate in the online survey. The participants were also encouraged to forward the link to their contacts who met the inclusion criteria. The questionnaire collected data on socio-demographic variables, level of knowledge and willingness for cosmetic surgery as well as attitude towards cosmetic surgery. Four questions collected information on the knowledge of cosmetic surgery, and each of them were graded 1 for a correct response and 0 for a wrong response. The maximum obtainable knowledge score was 4, and the lowest score was 0. Respondents that score more than the cumulative mean knowledge score of 2 were said to have good knowledge, while those with a score of 2 or less were said to have poor knowledge of cosmetic surgery. Similarly, 4 questions collected information on the attitude towards cosmetic surgery. Three of the questions were graded on a scale of 0 to 4, while one was graded on a scale of 0 to 2. The questions were graded in a positive direction such that the higher the score, the better the attitude towards cosmetic surgery. The maximum obtainable attitudinal score was 14,

while the lowest was 0. Respondents that score more than the cumulative mean attitudinal score of 7 were said to have a positive attitude, while those with a score of 7 or less were said to have a negative attitude toward cosmetic surgery.

Pretesting of the questionnaire was done among 20 respondents. Appropriate corrections were made to the questionnaire after pre-testing. Face and content validity was done by experts and consultants of Plastic surgery in the Plastic and Aesthetic Surgery Unit, the Department of Surgery, Ekiti State University Teaching Hospital, Ado-Ekiti, Ekiti State.

Data was collected and analyzed using SPSS for Windows (version 20; spss inc, Chicago, IL, USA). The data was presented in descriptive formats in tables, bar, and pie charts.

Chi-square was used for the test of significance to compare socio-demographic variables and other variables with attitude. Binary logistic regression was used to assess the determinants of attitude. Significant level was taken as P-value less than or equal to 0.05.

Ethical approval was obtained from the Health Research and Ethics Review Committee of the Federal Teaching Hospital, Ido-Ekiti. Participation was voluntary, and informed consent was obtained from all respondents.

Results

Table 1 shows that the mean age of the respondents was 28.0 ± 7.1 years (age range was 16 to 60 years) with a 1:1.4 male to female ratio.

More of the respondents were single (61.4%), Christian (59.4%) and earn less than ₦1,000,000 { $\$2,595.63$ } per annum (63.5%). About half (50.3%) were of Yoruba ethnicity. The minimum level of education of the respondents was secondary school, with 44.7% of them being graduates/undergraduates of a tertiary institution. Following a pictorial guide in the survey, only 12.7% of the respondents identified themselves as being Endomorphs or Obese.

Table 1. Socio-demographic Characteristics of Respondents

Variable	Frequency N=197 (%)
Age (years)	
Less than 20	25 (12.7)
20 to 29	106 (53.8)
30 to 39	55 (27.9)
40 and above	11 (5.6)
<i>Mean \pm SD</i>	<i>28.0 \pm 7.1</i>
Gender	
Male	83 (42.1)
Female	114 (57.9)
Marital Status	
Single	121 (61.4)
Married	73 (37.1)
Divorced/separated	2 (1.0)
Widowed	1 (0.5)
Religion	
Christianity	117 (59.4)
Islam	80 (40.6)
Tribe	
Yoruba	99 (50.3)
Hausa/ Fulani	42 (21.2)

Ibo	22 (11.2)
Others	34 (17.3)
Highest Educational Level	
Secondary School	72 (36.5)
Graduate	88 (44.7)
Post-graduate	37 (18.8)
Personal Income (Naira)	
Less than 1,000,000	125 (63.5)
1,000,000 – 4,999,999	56 (28.4)
5,000,000 – 9,999,999	12 (6.1)
10,000,000 and above	4 (2.0)
Body Type	
Ectomorph	90 (45.7)
Mesomorph	82 (41.6)
Endomorph / Obese	25 (12.7)

Regarding awareness of cosmetic surgery, only 2 (1%) respondents were unaware about the concept of cosmetic surgery, while 195 (99%) had some form of awareness, as shown in Figure 1. Figure 2 shows that about two-thirds (130) of the respondents got to know

about cosmetic surgery via television, 14.7% (29) became aware from interaction with family and friends, 8.1% (16) got information in the process of training (from school/professional academic courses), and 1.5% (3) became aware via social media platforms.

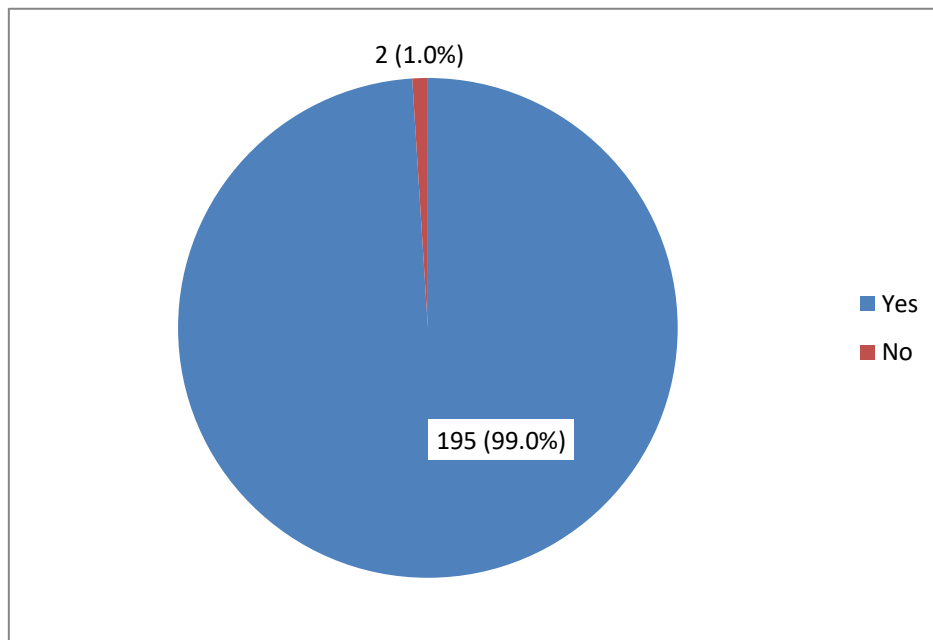


Figure 1. Level of awareness of cosmetic surgery among respondents (N=197)

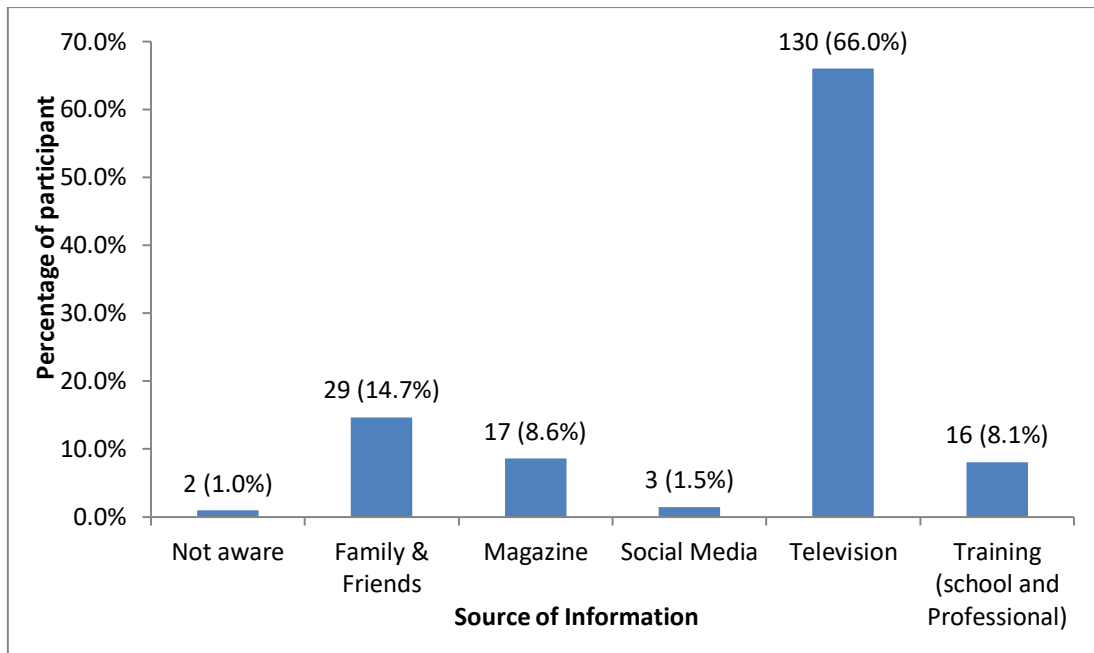


Figure 2. Main Source where Respondents Get to Know about Cosmetic Surgery (N=197)

When respondents were asked about whether cosmetic surgery could be done in Nigeria, 90 (45.7%) felt it could not be done in the country, as shown in Figure 3. Figure 4 shows that one hundred and thirteen (57.4%) agreed that

cosmetic surgery can be done only by plastic surgeons while 68 (34.5%) believe it can be done by both dermatologists and plastic surgeons, 4 (2%) believed all surgeons should be able to do cosmetic surgery.

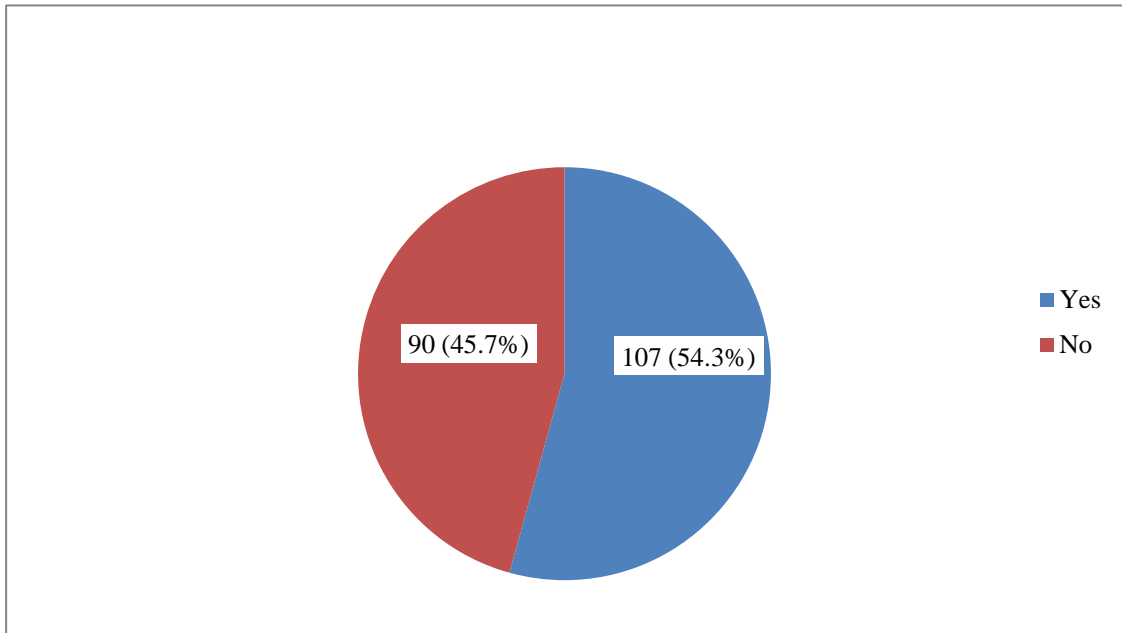


Figure 3. Level of Awareness that Cosmetic Surgery can be done in Nigeria (N=197)

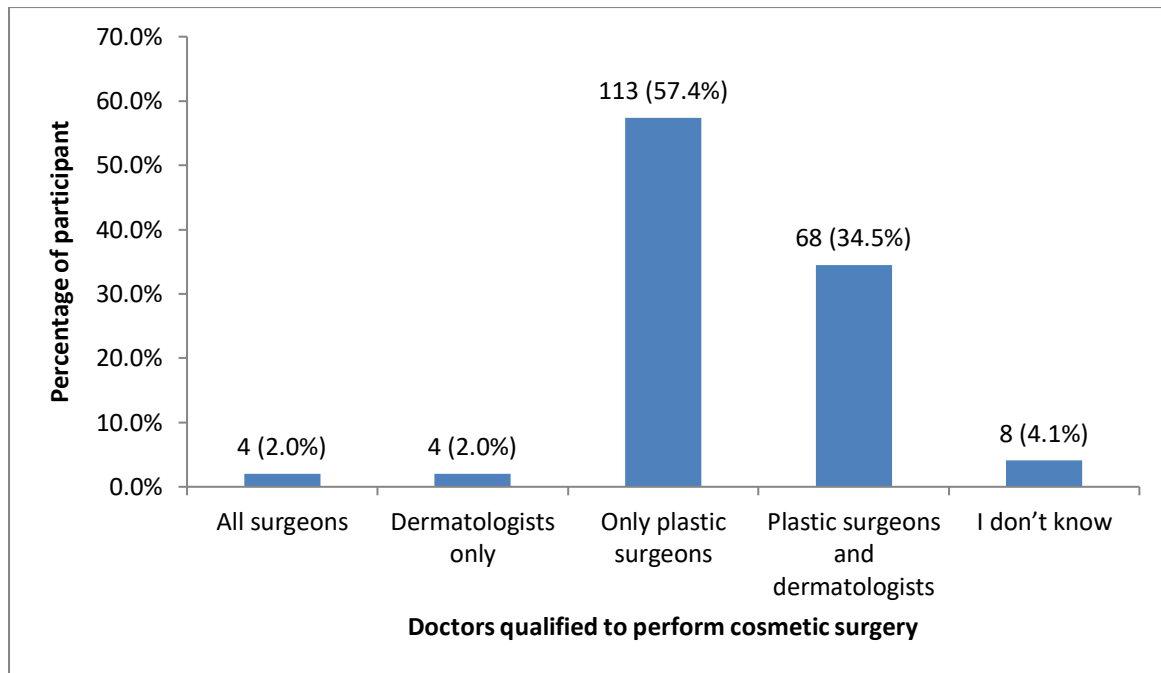


Figure 4. Respondent Knowledge of Doctors Qualified to Perform Cosmetic Surgery (N=197)

The majority (91.9%) of our respondents had good knowledge of cosmetic surgery, while a little above half (53.3%) had a positive attitude towards cosmetic surgery, as shown in Table 2. More than three quarters (77.7%) of the respondents were unwilling to have cosmetic

surgery for various reasons, including being satisfied with their body (61), religious/traditional belief (56), fear of complications (45), financial constraints (14) and personal reservations against cosmetic surgery (3) as shown in Figure 5.

Table 2. Knowledge and Attitude towards Cosmetic Surgery

Variable	Frequency N = 197 (%)
Knowledge	
Good	181 (91.9)
Poor	16 (8.1)
Attitude	
Positive	105 (53.3)
Negative	92 (46.7)

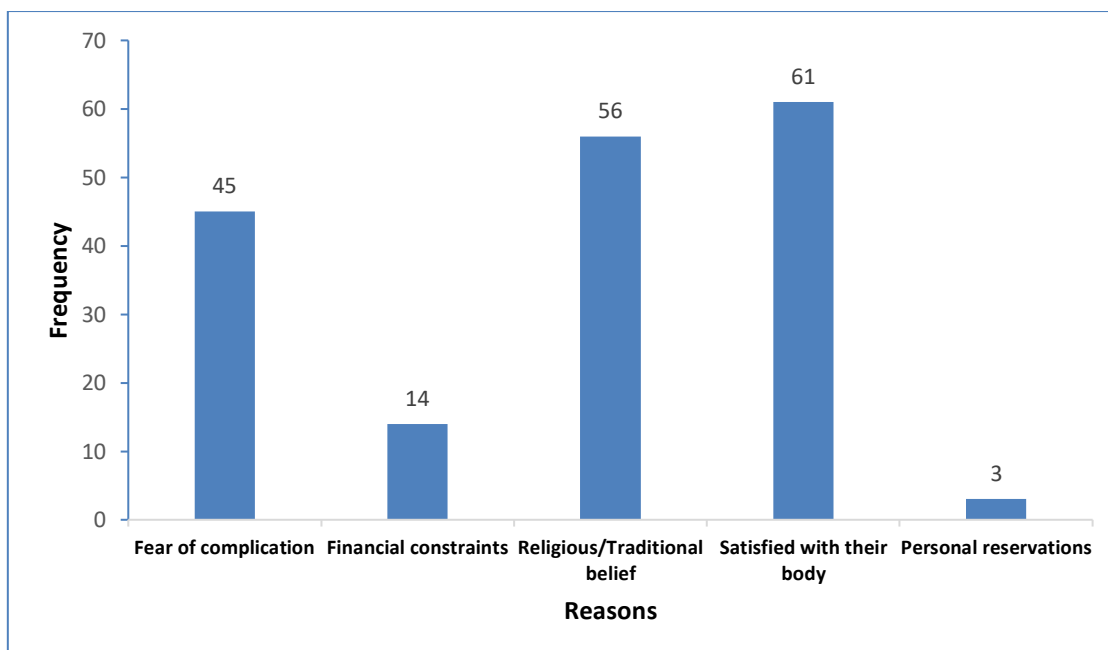


Figure 5. Reasons why Respondents would not Consider having Cosmetic Surgery (Multiple response)

When asked about spousal support for cosmetic surgery, 68(34.5%) affirmed YES, they would support their spouse to have cosmetic surgery, while 72 (36.5%) answered NO, 57(29%) were undecided at the time of the survey. As part of the condition for doing cosmetic surgery, 48.2% of the patients who desire to do cosmetic surgery would choose to

do it under strict confidentiality, in terms of preferred geographical location, where patients would like to have cosmetic surgery, amongst the subset of patients desirous of having cosmetic surgery, 62% of them would choose North America or Europe as their destination of choice, as shown in Table 3.

Table 3. Uptake of Cosmetic Surgery and Willingness to Support it

Variable	Frequency N = 197 (%)
Ever had cosmetic surgery	
Yes	11 (5.6)
No	186 (94.4)
Ever considered having cosmetic surgery	
Yes	58 (29.4)
No	128 (65.0)
Undecided	11 (5.6)
Reason for considering cosmetic surgery	
Correct a dissatisfaction	23 (11.7)
Have a more appealing look	10 (5.1)
Increase self esteem	14 (7.1)
Lose weight	5 (2.5)
Remove a scar	2 (1.0)
Others	4 (2.1)
I do not consider having cosmetic surgery	139 (70.5)
Condition for considering cosmetic surgery	
Usual Hospital Visit	22 (11.2)

Secrecy	26 (13.2)
Not sure	10 (5.1)
I do not consider having cosmetic surgery	139 (70.5)
Would support a spouse who wants cosmetic surgery	
Yes	68 (34.5)
No	72 (36.5)
Undecided	57 (29.0)
Location of interest of cosmetic surgery	
Nigeria	12 (6.1)
Nigeria or abroad	7 (3.6)
Africa other than Nigeria	1 (0.5)
America and/or Europe	36 (18.3)
Anywhere	2 (1.0)
I do not consider having cosmetic surgery	139 (70.5)

Table 4 revealed that analysis of the factors associated with attitude towards cosmetic surgery showed a positive attitude towards cosmetic surgery in the younger age groups ($p=0.001$), among Christians ($P=0.012$), those from “other” and Yoruba ethnicity ($P=0.041$) as

well as higher-income earners ($P=0.004$). Gender, marital status, level of education, body type, and knowledge about cosmetic surgery did not affect the attitude significantly ($P \geq 0.005$).

Table 4. Factors Associated with Attitude towards Cosmetic Surgery

Variable	Attitude towards Cosmetic Surgery		Chi square	p-value
	Positive n (%)	Negative n (%)		
Age (years)				
Less than 19	17 (68.0)	8 (32.0)	15.867	0.001
20 to 29	48 (45.3)	58 (54.7)		
30 to 39	38 (45.3)	17 (54.7)		
40 and above	2 (18.2)	9 (81.8)		
Gender				
Male	45 (54.2)	38 (45.8)	0.048	0.826
Female	60 (52.6)	54 (47.4)		
Marital Status				
Single	64 (52.9)	57 (47.1)	1.224	0.747
Married	40 (54.8)	33 (54.2)		
Divorced/separated	1 (50.0)	1 (50.0)		
Widowed	0 (0.0)	1 (100.0)		
Religion				
Christianity	71 (60.7)	46 (39.3)	6.311	0.012
Islam	34 (42.5)	46 (57.5)		
Tribe				
Yoruba	55 (55.6)	44 (44.4)	8.246	0.041
Hausa	15 (35.7)	27 (64.3)		
Ibo	12 (54.5)	10 (45.5)		

Others	23 (67.6)	11 (32.4)		
Highest Educational Level				
Secondary School	37 (51.4)	35 (48.6)	3.827	0.148
Graduate	43 (48.9)	45 (51.1)		
Post-graduate	25 (67.6)	12 (32.4)		
Personal Income (₦)				
Less than 1,000,000	55 (44.0)	70 (56.0)	13.118	0.004
1,000,000 – 4,999,999	37 (66.1)	19 (33.9)		
5,000,000 – 9,999,999	10 (83.3)	2 (16.7)		
10,000,000 and above	3 (75.0)	1 (25.0)		
Body Type				
Ectomorph	46 (51.1)	44 (48.9)	1.348	0.510
Mesomorph	43 (52.4)	39 (47.6)		
Endomorph/Obese	16 (64.0)	9 (36.0)		
Knowledge				
Good	95 (52.5)	86 (47.5)	0.592	0.442
Poor	10 (62.5)	6 (37.5)		

Table 5 shows the predictors of positive attitude towards cosmetic surgery, and they included Age and personal income. Respondents that earn between “₦1,000,000-4,999,999” and “₦5,000,000-9,999,999” per

annum were 3 and 13 times more likely to have positive attitude towards cosmetic surgery than those earning less than ₦1,000,000 per annum (OR = 3.43, 12.64; 95% CI = 1.51 – 7.78, 1.64 – 97.58) respectively.

Table 5. Binary Logistic Regression for the Predictors of Attitude of Respondents towards Cosmetic Surgery

Variable	AOR	95% CI for AOR		p-value
		LB	UB	
Age (years)				
Less than 20	35.826	4.356	294.660	0.001
20 to 29	17.215	2.466	120.180	0.004
30 to 39	22.603	3.313	154.220	0.001
40 above (ref)	1.000			
Religion				
Christianity	1.826	0.814	4.094	0.144
Islam (ref)	1.000	-	-	-
Tribe				
Yoruba (ref)	1.000	-	-	-
Hausa	1.038	0.392	2.751	0.940
Ibo	0.984	0.354	2.733	0.975
Others	2.298	0.916	5.762	0.076
Personal Income (₦)				
Less than 1,000,000 (ref)	1.000	-	-	-
1,000,000 – 4,999,999	3.427	1.509	7.781	0.003
5,000,000 – 9,999,999	12.642	1.638	97.584	0.015
10,000,000 and above	14.249	0.588	345.095	0.102

ref – Reference Category
CI – Confidence Interval
AOR – Adjusted Odd Ratio
UB – Upper Boundary
LB – Lower Boundary

Discussion

Awareness of cosmetic surgery was high (99%) in this study. This is similar to findings by other authors [8, 16, 18]. About two-thirds of respondents became aware of cosmetic surgery via television which is again similar to the findings by other authors [8, 12, 16, 17]. However, a significant proportion (45.7%) of respondents felt cosmetic surgery could not be done in Nigeria. This result is consistent with the findings by [12], who noted in their study that despite the relatively high level of awareness amongst university undergraduates, a significant proportion of (36%) of them did not know of cosmetic surgery being done in Nigeria. It is noteworthy that a lot of the respondents realized that plastic surgeons and dermatologists were the doctors who do cosmetic surgery which is a positive trend.

A large proportion of the respondents were unwilling to have cosmetic surgery, the commonest factor influencing their decision was satisfaction with their body image. Other factors included religious/traditional beliefs and fear of complications. Only 14 participants said financial constraint was a reason why they would not have cosmetic surgery done, this is surprising considering the socio-economic situation of the country [19]. The financial constraint may be a factor in discouraging patronage of cosmetic surgery as they are not covered by health insurance, and most patients pay out of pocket despite the relatively high cost of the procedures. In addition, it was observed that 48.2% of the patients would prefer to have their surgery done under strict confidentiality; this may be due to socio-cultural taboos, which are still prevalent in our society.

When factors influencing attitude towards cosmetic surgery were looked into, the age group 16–19 years showed the most positive attitude towards cosmetic surgery than other age groups. Positive attitudes towards cosmetic surgery progressively decreased with increasing age, and it is not surprising as the younger generations are more likely to watch reality television shows, which have been shown to positively influence attitude towards cosmetic surgery [3]. There was no difference in the attitude to cosmetic surgery between male and female respondents ($P=0.747$), which is similar to findings by other authors [12, 17]. When religion was assessed, it was observed that respondents professing Christian faith had a more positive attitude towards cosmetic surgery compared to Muslims. This may reflect some of the differences in the fundamentals of the religion's doctrines. Umran in Turkey revealed that even the belief level of individuals within the same faith significantly affected attitudes towards cosmetic surgery [20, 21]. The attitude of the different ethnic groups of the country revealed that the respondents who identified themselves as Hausa compared to other ethnic groups had less positive attitudes to cosmetic surgery. This may be related to the fact that the predominant religion practiced by this tribe is the Islamic faith which correlates with the findings that Muslims had a less positive attitude to cosmetic surgery as previously discussed.

The finding that about two-thirds of the participants desiring cosmetic surgery would prefer to do it in Europe raises questions about the level of trust of the general population with the Nigerian health care system. Does the wish of traveling abroad to do these procedures indicate a lack of trust in the competence of the surgeons and adequacy of the facilities in

Nigeria? Or is it merely an indication to explore medical tourism in the highly developed regions of the world amongst the more affluent members of the society? Furthermore, it is obvious that as respondent's income per annum increases, their attitude towards cosmetic surgery also improves such that those earning between "₦1,000,000-4,999,999" per annum were three times more likely to have a positive attitude towards cosmetic surgery than those earning less than ₦1,000,000 per annum. The reason for this attitude may be because in general, Nigerians consider cosmetic surgery procedures expensive.

The strength of this study was that it recruited a heterogeneous group of Nigerians. However, its limitation is that only Nigerians who were active on electronic media were interviewed, and this may not show the picture

among other members of the Nigerian population.

Conclusion

In conclusion, the respondents had good knowledge of cosmetic surgery. However, there is the relatively poor attitude towards cosmetic surgery and a low level of willingness to indulge in the surgery. Factors such as age, religion, ethnic affiliation, and income were important determinants of attitude towards cosmetic surgery. Further studies will be needed to understand the influence of culture and religious belief on the attitude towards cosmetic surgery in Nigeria.

Conflicts of interests

Authors declare that there is no conflicts of interest.

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