

## Knowledge, Attitude and Practice of Cosmetic Surgery among Basic Science Students of a University in Delta State, Nigeria

<sup>1</sup>Otene C. I., <sup>2</sup>Odonmeta A. B., <sup>3</sup>Ebeye O. A., <sup>4</sup>Enivwenae A. O., <sup>3</sup>Ozoko L. E.,  
<sup>5</sup>Ebeigbe P. N.

<sup>1.</sup> Surgery Department, Delta State University, Abraka, Delta State, Nigeria

<sup>2.</sup> Internal Medicine Department, Delta State University Teaching Hospital, Oghara, Delta State, Nigeria.

<sup>3.</sup> Anatomy Department, Delta State University, Abraka, Delta State, Nigeria

<sup>4.</sup> Surgery Department, Federal Medical Centre, Asaba, Delta State, Nigeria

<sup>5.</sup> Obstetrics and Gynaecology Department, Delta State University, Abraka, Delta State, Nigeria

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### Abstract

**Background:** Cosmetic surgery practice is still relatively new in Nigeria although the ready availability of information online has helped in increasing the awareness globally. Recent studies suggest an upsurge in the number of requests in Nigerian hospitals for cosmetic surgeries. This survey sets out to document the knowledge, attitude and practice of cosmetic surgery in a Nigerian University.

**Materials and Methods:** This was a questionnaire based study among pre-clinical students of College of Health sciences of Delta State University Abraka. The questionnaire was divided into 4 parts; Bio-data, knowledge, attitude and practice of cosmetic surgery. One hundred and sixty six respondents participated in the study. Their performances in the various sections assessing their knowledge, attitude and practice of cosmetic surgery were scored. Data was analysed using SPSS version 20.

**Results:** The respondents were aged between 15 and 49 years, most of them between 20 and 29 years with an average age of 24.1 + 3.7 yrs. Majority of them were Pentecostal Christians (89.2%) and majority indicated they first heard about cosmetic surgery while they were in secondary school 61.3%; followed by 27.3% respondents who heard in the university, while 11.3% heard in the primary school. The mass media was the commonest source of information (72.7%). Majority of the respondents (61.4%), felt that cosmetic surgery is not available in the country and 78.9% believe it is reserved for celebrities. 91.6% felt that cosmetic surgery is harmful while 75.9% of respondents will not marry someone who has had cosmetic surgery. Culture and religion influenced the attitudes of a combined total of 75.9% respondents towards cosmetic surgery.

**Conclusion:** Many respondents don't know much about cosmetic surgery in our environment and they generally have a negative attitude towards cosmetic surgery fuelled significantly by their culture and religion.

**Key Words:** Knowledge, attitude, practice, cosmetic surgery.

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### I. Introduction

Cosmetic surgery is still a relatively new subject in Nigeria, however, in the last decade many Nigerian tertiary health care centres are getting increasing requests for such procedures, with increasing awareness in this global information technology boom, the challenges are legion but cosmetic procedures are on a steady rise in Nigerian hospitals.<sup>1,2</sup> Cosmetic surgery is the aspect of plastic surgery that deals with "maintenance, restoration or enhancement of one's physical appearance through surgical and medical techniques".<sup>3</sup>

Physical attractiveness has a lot of influence in our everyday lives and so it is perhaps not surprising that people seek a means to alter their appearance to conform to societal ideals of attractiveness.<sup>4</sup> Evolutionary and social psychologists<sup>5-7</sup> have extensively explored the role of attractiveness in Western society. A meta-analysis of more than 900 studies also provides further support that people are treated differently based on how physically attractive they are perceived to be.<sup>8</sup>

Religious, social and cultural factors have been known world over to affect and influence people's attitudes and perception towards cosmetic surgery as well as the acceptability of cosmetic procedures and the acceptance of the cosmetic surgery patients. Tam KP et al, looked at the role of culture and social contact on the attitudes of people of different cultures (Hong Kong, Japan and the United States) and social backgrounds towards cosmetic surgery patients and noted that "across these cultures, attitudes toward cosmetic surgery patients were predominantly negative: Participants ascribed more negative attributes to cosmetic surgery patients and found cosmetic surgery not acceptable".<sup>9</sup>

However, reports abound of increasing cosmetic surgeries especially in the western world. The American Society for Aesthetic Plastic Surgery reported an increase of 446% in cosmetic procedures since 1997 and an overall increase of 8% in 2007, with a 17% increase in men undertaking cosmetic surgery<sup>10</sup>. Similarly, in

the United Kingdom, the British Association of Plastic Surgeons recorded a 35% increase in procedures performed by its members from 2004 to 2005 <sup>11</sup>.

There is a dearth of statistics on cosmetic surgery in Nigeria in particular and Africa in general. This survey therefore seeks to document the level of knowledge, attitude and practice of cosmetic surgery in an enlightened group of students from a sub-urban university in Delta State of Nigeria.

## II. Materials And Methods

We conducted a questionnaire based study among undergraduate students of College of Health sciences of Delta State University Abraka, Delta State, Nigeria. A structured questionnaire in 4 parts was used to assess their knowledge, attitude and practice of cosmetic surgery. The first part assessed bio-data and the second part assessed their knowledge about cosmetic surgery. The third part assessed their attitude and the fourth, their practice of cosmetic surgery. Two hundred questionnaires were distributed to randomly selected students out of which. 166 were completely filled and were analyzed. Their performances in the various sections assessing their knowledge, attitude and practice of cosmetic surgery were scored. It was determined whether any of the socio-demographic variables affected their performances and if there was any association between their knowledge, attitude and practice of cosmetic surgery.

Data was analysed using SPSS version 20, with results presented in tables and charts. Mean scores for selected groups were compared using the student t-test. The Spearman's rank correlation was used to test the association between variables. Level of significance was set at a *p* value of < 0.05.

## III. Results:

There were a total of one hundred and sixty six students included in this study. There were 77 males (46.4%) and 89 females (53.6%). Table 1 shows the age distribution of the respondents. The respondents were aged between 15 and 49years. Most of them were between 20 and 29years with an average age of 24.1+ 3.7yrs. The vast majority of the respondents were single, 161 (97.0%), while only 5 (3.0%) were married.

**Table 1: Age distribution of respondents**

AGE (yrs)	FREQUENCY (%)
15 – 19	26 (15.7)
20 – 29	136 (81.9)
30 – 39	3 (1.8)
40 – 49	1 (0.6)
<b>TOTAL</b>	<b>166(100.0)</b>

The respondents were all drawn from the College of Health Sciences.

Table 2 shows the distribution of the religion of the respondents, majority of them being Pentecostal Christians [148 (89.2%)].

**Table 2: Religion of Respondents.**

Religion	FREQUENCY (%)
Pentecostal Christians	148 (89.2)
Catholic Christians	13 (7.8)
Jehovah's Witness	2(1.2)
African Traditional Religion	2 (1.2)
Muslim	1 (0.6)
<b>TOTAL</b>	<b>166(100.0)</b>

Table 3 shows the distribution of the tribes of the respondents. Majority of them are Urhobos/ Isokos [71 (42.5%)].

**Table 3: Tribe of Respondents.**

Tribe	FREQUENCY (%)
Urhobo/Isoko	71 (42.5)
Igbo/Delta Igbo	64 (38.5)
Bini/Esan	13(7.8)
Ijaw/Itsekiri	9 (5.4)
Yoruba	8 (4.8)
Hausa	1 (0.6)
<b>TOTAL</b>	<b>166(100.0)</b>

**Knowledge About Cosmetic Surgery**

One hundred and fifty (90.4%) respondents said they had heard of cosmetic surgery, but 16 (9.6%) said they had not heard about cosmetic surgery. Majority indicated that they first heard about cosmetic surgery while they were in secondary school [92 (61.3%)]; followed by 41(27.3%) respondents who only heard about it in the university. Seventeen (11.3%) however said they heard about the subject as early as the primary school. Table 4 shows the sources of information among those that had heard about cosmetic surgery. The mass media was the commonest source of information [109, (72.7%)].

**Table 4: Source of Information about Cosmetic surgery.**

Source of Information	FREQUENCY (%)
Mass media	109 (72.7)
Friends	44 (29.3)
Teachers/ Lecturers	2(1.4)
Parents/ Relatives	2 (1.4)

**n = 150**

Table 5 shows that the satellite television was the type of mass media that served as the source of information in the majority of cases [73 (67.0%)].

**Table 5: Type of Mass Media.**

Source of Information	FREQUENCY (%)
Satellite Television	73 (67.0)
Local Television	23 (21.2)
News Papers	11 (10.1)
Radio	6 (5.5)

**n = 109**

Majority of the respondents [102 (61.4%)], felt that cosmetic surgery is not available in the country. Only 64 (38.6%) respondents indicated otherwise. When asked what cosmetic surgery in their opinion is, 84 respondents (50.6%) either had no idea or gave wrong answers. Eighty two (49.4%) however indicated that cosmetic surgery could improve appearance. One hundred and ten respondents (66.3%) mentioned at least a type of cosmetic surgery. The remaining 56 respondents (33.7%) either had no idea or gave wrong responses. When asked what class of people can request or benefit from cosmetic surgery, only 13 (7.85%) indicated that any class of persons can benefit. Majority [131 (78.9)] felt that cosmetic surgery is reserved for celebrities.

When asked if they think cosmetic surgery can really improve appearance 120 (72.3%) said yes. Forty six (27.7%) however either did not answer or said no. Majority [152 (91.6%)] also felt that cosmetic surgery is harmful, compared to only 14 (8.4%) who said that it is safe.

Table 6 shows the fears expressed by the respondents that thought cosmetic surgery is harmful.

**Table 6: Respondents' fears about cosmetic surgery.**

Fear expressed about cosmetic surgery	FREQUENCY (%)
Cancer	50 (57.5)
Death	14 (16.1)
Wrinkling/ disfigurement	12 (13.8)
Damage/Loss of function	11 (12.6)
Infection	4 (0.5)
Irreversibility	3 (0.3)
Impairment in old age	2 (0.2)
Others	5 (0.6)

**n = 87**

When asked the group of people they think need cosmetic surgery, only 13 (7.8%) indicated that anybody can benefit. Majority [153 (92.2%)] felt that a particular group (especially females in the show business), are the ones in need of cosmetic surgery.

Table 7 shows respondents' thought about the part of the body people request cosmetic surgery. Majority indicated that it can be any part of the body [45 (35.4%)].

**Table 7: Respondents' views about part of the body that people request cosmetic surgery.**

View on Part of the Body People request Cosmetic surgery.	FREQUENCY (%)
Any part of the body desired	45 (35.4)
Breast	17 (13.4)
Face	12 (9.4)
Skin	5 (3.9)
Buttocks	3 (2.3)
Abdomen	3 (2.3)

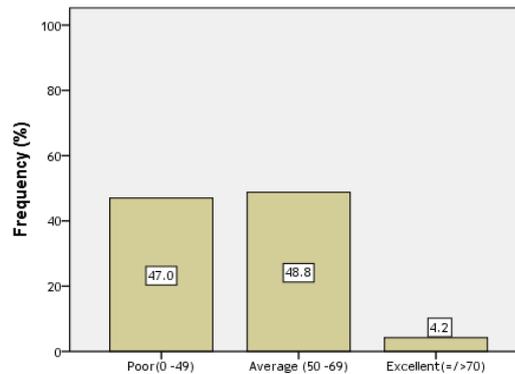
n = 127

Table 8 shows the summary of the performance of respondents in questions used to assess their knowledge about cosmetic surgery.

**Table 8: Assessment of Respondents' knowledge about cosmetic Surgery**

Questions	FREQUENCY (%)	
	Correct Answers	Wrong/No Answers
1) Have you heard of cosmetic surgery?	149 (89.8)	17 (10.2)
2) Are you aware of the availability of cosmetic surgery in Nigeria?	64 (38.6)	102 (61.4)
3) What is cosmetic surgery in your opinion?	82 (49.4)	84 (50.6)
4) What type of cosmetic surgery do you know?	110 (66.3)	56 (33.7)
5) Which class of people do you think request cosmetic surgery?	13 (7.8)	153 (92.2)
6) Do you believe cosmetic surgery can really improve appearance?	120 (72.3)	46 (27.7)
7) Do you think cosmetic surgery is harmful?	14 (8.4)	152 (91.4)
8) Which people do you think need cosmetic surgery?	13 (7.8)	153 (92.2)
9) Which part of the body do people request cosmetic surgery?	132 (79.5)	20.5)

The average score of the respondents is 46.7 +1.7 %, with a range of 0.0 – 77.8 %. Only 7 respondents (4.2%) had scores 70% and above (Figure 1).



**Figure 1 Assessment of Respondents' Knowledge about Cosmetic Surgery**

**Attitude About Cosmetic Surgery**

When asked if they approve of cosmetic surgery, only 48 (28.9%) said yes. Majority of them [118 (71.1)] did not approve of cosmetic surgery. Fifty four (32.5%) of respondents indicated that their culture has an influence on their decision, and 72 (43.4%) also said their religion has an influence on their decisions. When asked if they will accept cosmetic surgery, 147 (88.6%) said no, only 19 (11.4%) said yes. When asked if they desire to improve their body image, only 37 (22.3%) said yes, majority [129 (77.7)] said no. Eighty three respondents gave reasons why they had no desire to improve their body image, which are summarized in table 9.

**Table 9: Reasons why cosmetic surgery is not desired by respondents.**

Reasons	FREQUENCY (%)
Okay with self	48 (57.8)
Perfectly made by God	25 (30.1)
Fear of complications and death	5 (6.0)
Wants to be natural	4 (4.8)
A Sin	1 (1.2)

n = 83

Twenty two of the 37 respondents that desired to improve their body image, further mentioned the part of the body they will like to have cosmetic surgery done, as summarized in table 10.

**Table 10: Part of the body respondents will like cosmetic surgery performed on.**

Part of body	FREQUENCY (%)
Face	9 (40.9)
Abdomen	6 (27.3)
Hips	2 (9.1)
Thigh and Arms	1 (4.5)
Perineum	1 (4.5)
Legs	1 (4.5)
Teeth	1 (4.5)
Entire Body	1 (4.5)

**n = 22**

Table 11 shows the responses when asked when they think people should have cosmetic surgery.

**Table 11: When Respondents think people should have cosmetic surgery.**

When to have cosmetic surgery	FREQUENCY (%)
Anytime they like	72 (60.0)
After having desired children	26 (21.7)
Before marriage	11 (9.2)
In old age	9 (7.5)
When married	2 (1.7)

**n =120**

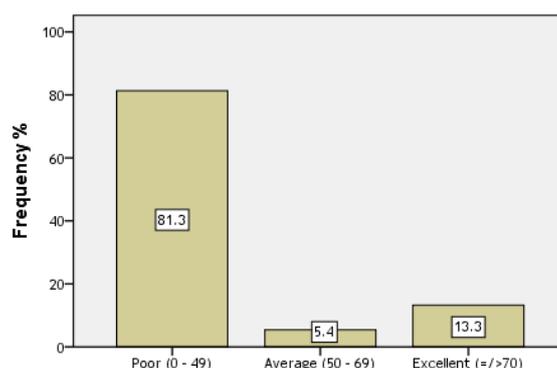
When asked if they will marry someone who has had cosmetic surgery, majority [126 (75.9)] said no. Only 40 (24.1%) said yes. Majority [115 (69.3%)] said they will not recommend cosmetic surgery to a friend or close relative. Only 51 (30.7%) said they will.

Table 12 shows the summary of the performance of respondents in questions used to assess their attitude about cosmetic surgery.

**Table 12: Assessment of Respondents' Attitude about cosmetic Surgery**

	Questions	FREQUENCY (%)	
		Correct Answers	Wrong/No Answers
1)	Do you approve of cosmetic surgery?	48 (28.9)	118 (71.1)
2)	Will you accept to have cosmetic surgery?	19 (11.4)	147 (88.6)
3)	Do you desire to improve your body image?	37 (22.3)	129 (77.7)
4)	Which part of your body will you like to have cosmetic surgery on?	31 (18.7)	135 (81.3)
5)	When do you think people should have cosmetic surgery?	72 (43.4)	94 (56.6)
6)	Will you marry someone who has had cosmetic surgery?	40 (24.1)	126 (75.9)
7)	Will you advise a friend or close relative to undergo cosmetic surgery?	51 (30.7)	115 (69.3)

The average score of the respondents is 25.6 + 1.9%, with a range of 0.0 – 100 %. Only 31 respondents (18.7%) had scores >50% , while only 22 (13.3%) had scores >70% (Figure 2).



**Figure2: Assessment of Respondents' Attitude Towards Cosmetic surgery**

**Practice Of Cosmetic Surgery**

Only 4 respondents (2.4%) have had a cosmetic surgery and it involved facial reconstructive surgeries in all 4 cases. One hundred and fifteen of the remaining 162 respondents gave reasons why they have not had cosmetic surgery as summarized in table 12.

**Table 12: Reasons why respondents have not had cosmetic surgery.**

Reasons why respondents have not had cosmetic surgery	FREQUENCY (%)
Okay with self	75 (65.2)
Strongly against it	20 (17.4)
Cannot afford it	7 (6.1)
Fear of complications	6 (5.2)
A sin	3 (2.6)
No opportunity	2 (1.7)
More information needed	2 (1.7)

**n =115**

Seventeen respondents (10.2%) have someone close to them who has had cosmetic surgeries. The part of the body involved is summarized in table 13. Ten (58.8%) of these respondents said the results were good while 7 (41.2%) said the results were not good.

**Table 13: Part of the body involved in the cosmetic surgery done by someone close to the respondents.**

Type of Surgery	FREQUENCY (%)
Face	9 (53.0)
Breast	5 (29.4)
Hips	2 (11.8)
Ear	1 (5.9)
Penis	1 (5.9)

**n =17**

One hundred and six respondents replied when asked what they will do in cases where the result is not good or where there are reparable complications. Their responses are summarized in table 14.

**Table 14: What Respondents will do where the result is not good or where there are reparable complications.**

What Respondents will do	FREQUENCY (%)
Never have another surgery	51 (48.1)
Go to another surgeon	37 (34.9)
Agree to another operation by the same surgeon	16 (15.1)
Seek expert advice	1 (0.9)
Resort to other therapies	1 (0.9)

**n =106**

One hundred and twenty seven respondents revealed their inhibition to cosmetic surgery as summarized in table 15

**Table 15: Respondents'Inhibition to Cosmetic Surgery.**

Inhibition to Cosmetic surgery	FREQUENCY (%)
Fear of complications	76 (59.8)
Religion	42 (33.1)
Finance	16 (12.6)
Culture	8 (6.3)
Society	3 (2.4)
Access	2 (1.6)
Personal	2 (1.6)

**n =127**

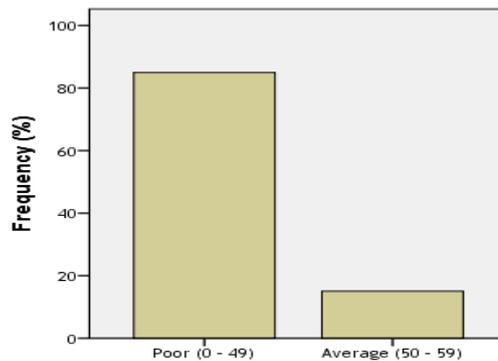
When asked if they will accept non-surgical procedures as alternatives to cosmetic surgery, majority [89 (53.6%)] said no. Only 77 (46.4%) said they would accept.

Table 16 shows the summary of the performance of respondents in questions used to assess their practice of cosmetic surgery.

**Table 16: Assessment of Respondents’ Attitude about cosmetic Surgery**

	Questions	FREQUENCY (%)	
		Correct Answers	Wrong/No Answers
1)	Have you ever had cosmetic surgery?	4 (2.4)	162 (97.6)
2)	Is there anyone close to you who has had cosmetic surgery?	17 (10.2)	149 (89.8)
3)	Do you think the result of the cosmetic surgery was good?	46 (27.7)	120 (72.3)
4)	If you or someone close to you had cosmetic surgery and the result is not good or there are reparable complications, what will you do?	55 (33.1)	111 (66.9)
5)	What is your inhibition to cosmetic surgery?	2 (1.2)	164 (98.8)
6)	Will you accept non-surgical cosmetic procedures as alternatives to cosmetic surgery?	77 (46.4)	89 (53.6)

The average score of the respondents is 20.2+ 1.2%, with a range of 0.0 – 66.7 %. No respondent scored up to seventy. Only 25 respondents (15.1%) had average scores. Majority [141 (84.9%)] had scores below 50% (Figure 3).



**Figure 3: Assessment of Respondents’ Practice of Cosmetic Surgery**

**Knowledge About Cosmetic Surgery**

The relationship between the socio-demographic factors and knowledge about cosmetic surgery is shown in table 17.

**Table 17: Relationship Between Socio-demographic Factors and Knowledge about Cosmetic Surgery**

S/N	Factors	Average Scores +sd (%)	p-value (2 tailed t test)
1	Gender	Male	0.895
		Female	
2	Age	<20years	0.657
		20 – 29years	
		30 – 49years	
3	Faculty of study	BMS	0.789
		Medicine	
4	Marital status	Married	0.591
		Single	

P < 0.05 is significant

**Attitude Towards Cosmetic Surgery**

Table 18 summarizes the relationship between selected socio-demographic factors and respondents’ attitude towards cosmetic surgery.

**Table 18: Relationship Between Socio-demographic Factors and Knowledge about Cosmetic Surgery**

S/N	Factors	Average Scores +sd (%)	p-value(t test)
1	Gender	Male	0.950
		Female	
2	Age	<20years	0.553
		20 – 29years	
		30 – 49years	
3	Marital status	Married	0.238
		Single	

P < 0.05 is significant

**Correlation between Knowledge about cosmetic surgery and Attitude toward cosmetic surgery:**

There is a positive correlation between knowledge about cosmetic surgery and attitude towards cosmetic surgery among the respondents ( $r = 0.17$ ;  $p = 0.028$ ).

**Practice Of Cosmetic Surgery**

Table 19 summarizes the relationship between selected socio-demographic factors and respondents’ practice of cosmetic surgery.

**Table 18: Relationship Between Socio-demographic Factors and Practice of Cosmetic Surgery**

S/N	Factors	Average Scores +sd (%)	p-value(t test)
1	Gender	Male	18.2+ 1.1
		Female	21.9+ 1.3
2	Age	<20years	21.8+1.2
		20 – 29years	20.0+ 1.2
		30 – 49years	16.7+ 0.8
3	Marital status	Married	33.3+ 1.2
		Single	+ 1.1

**2) Correlation between Knowledge about cosmetic surgery and Practice of cosmetic surgery.**

There is a positive correlation between the knowledge about cosmetic surgery and the practice of cosmetic surgery among the respondents ( $r = 0.18$ ;  $p = 0.022$ ).

**3) Correlation between Attitude towards cosmetic surgery and Practice of cosmetic surgery.**

There is a positive correlation between the attitude towards cosmetic surgery and the practice of cosmetic surgery among the respondents ( $r = 0.41$ ;  $p = 0.000$ ).

**IV. Discussion**

Globally, our immediate environment not left out, there is increased awareness of cosmetic surgery and increase of its patronage.<sup>1, 2, 9 - 11</sup> Majority of our respondents were aware right from their secondary school days, thanks to the mass media especially the satellite television. However, it is disappointing that majority (61.4%) of our respondents are not aware of the availability of cosmetic surgery services in our country.

Majority of our respondents believe that cosmetic surgery is reserved for celebrities, especially women, most likely because of media hype of actions and profiles of celebrities but 91% believe that cosmetic surgery is harmful, cancer being the most frequent harm (57.5%) it could cause according to them. Others fear dying from the procedure, disfigurement, infection and so on.

The attitude of our respondents towards cosmetic surgery and recipients of cosmetic surgery is predominantly negative across different cultures as was also found by Tam et al in Hong Kong, Japan and USA<sup>9</sup>. Participants in Hong Kong and Japan were not even willing to form social relationships, especially intimate ones, with people who have had cosmetic surgery<sup>9</sup> just like our study shows that majority of our respondents will not marry someone who has had cosmetic surgery. Similarly, majority of our respondents will not even recommend cosmetic surgery to a friend or close relative, most probably due to fear of complications and the general belief that it is harmful.

Religion and culture are major influences on the attitudes of our respondents towards cosmetic surgery; this finding is not surprising as these are major considerations in African societies right from even the pre-Christianity era.<sup>12, 13</sup> Majority of our respondents do not approve of cosmetic surgery as majority of them also feel they should be satisfied with however they have been made (created) as a result some of those who desire to have cosmetic surgery done are often scoffed at. A combined total of 75.9% of the respondents admitted that culture or religion had an influence on their decision. Similarly, in a study in the UK, researchers focused on religious beliefs and attitudes toward cosmetic surgery after noting that “research exploring religiosity as a possible factor predicting the likelihood of undergoing cosmetic surgery is sparse”<sup>4</sup> but noted also that “previous research has shown that religiosity significantly predicts attitudes toward controversial topics in Western society such as abortion<sup>14</sup>, genetic screening<sup>15</sup> and euthanasia<sup>16</sup>”. It was further suggested in the UK study that “religiously conservative individuals of all faiths will have stricter views about ‘deception’ and sins of vanity, and will be less likely to undergo cosmetic surgery than more liberal or atheist individuals.”<sup>4</sup>

With such strong religious, cultural and social influences in our environment, despite the fact that an enlightened group of participants were recruited for this survey, it is not surprising that only very few of our respondents have had, or know people who have had, cosmetic surgery performed on them. Our survey has further streamlined the main factors that inhibit the willingness to undergo cosmetic surgery to include; fear of complications, religion, finance, culture, societal values and accessibility.

## V. Conclusion

We conclude that many people in our environment do not know enough about the availability, accessibility, merits and demerits of cosmetic surgery and of those that know, fear of complications, religion, cultural and societal norms inhibit the acceptance of cosmetic surgery. We however, recommend that a similar study be carried out in our environment in middle aged and ageing subjects for comparison of findings as these groups have shown interesting findings in studies abroad.

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