The Perceptions and Attitudes of Saudi Internet Users toward the Practice of Plastic Surgery

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ABSTRACT:
An electronic survey about plastic surgery which includes the demographic data and questions related to the specialty was distributed randomly, through the internet, among Saudi males and females from various age groups and educational backgrounds. The study was conducted in King Saud University from August 2012 to December 2015. A total of 416 males and 588 females completed the questionnaire. The age ranged from 14 to 57 years. People younger than thirty years old had a significantly less exposure to plastic surgeries (3.7%) compared to people who were forty years old and above (17.5%) (p<0.001). The type of surgery differed significantly between genders as 81.8% of females underwent cosmetic procedures compared to 50% of males (p=0.011). Participants with high financial income had a higher rate of cosmetic procedures and were more receptive to its concept. The majority (59.5%) were against cosmetic surgery due to mostly religious beliefs (80.6%). The media and internet were the two main sources of plastic surgery information for 37.1% and 29.7% of participants respectively.

Keywords - plastic surgery, attitude; media, cosmetic, reconstructive

I. Introduction
Although Saudi Arabia remains the country with the strictest ties to the social traditions and religion among all Arab countries, beauty advertisement has gained the public attention lately. Plastic surgery, whether reconstructive or cosmetic, is relatively new in the Saudi society, and due to the media storms of good looks, its practice has grown among the Saudi population. Nevertheless, there have been some concerns that cosmetic procedures are against the principle of Islam, since it is an attempt to change Allah's creation [1, 2]. These concerns have been discussed in several local conferences that invited religious figures. Some Islamic schools of thought agreed that some cosmetic procedures are not against the principle of Islam. For instance, aging, lipodystrophy, and breast hyperplasia are true diseases and hence their treatment with face lift, liposuction, and breast reduction are actually welcomed by Islam [3]. The aim of this paper is to identify the level of knowledge, attitudes and perspectives of Saudi Arabians toward the practice through analyzing their answers to a plastic surgery questionnaire.

II. Methods

Ethical approval for the study was obtained from the Institutional Review Board of the College of Medicine at King Saud University where the study was conducted. A questionnaire (in Arabic) about plastic surgery was designed electronically and distributed randomly through the social media and numerous Saudi websites. The objectives, to attain and analyze data regarding the perceptions and attitudes of Saudis toward
plastic surgery, were explained in the beginning of the questionnaire. Demographic data including the nationality, age, gender, place of residence, monthly income and educational level were obtained. Participants were asked if they underwent or considered having a plastic surgery and if they knew the difference between the reconstructive and cosmetic types. The indications and level of satisfaction were included in the questionnaire for respondents who underwent plastic surgery. Another question was whether or not all kinds of plastic surgery were forbidden in Islam. The final question was about the participant's source of plastic surgery information. All the non-Saudi respondents were excluded from the study.

Data collection started in August 2012 and ended in December 2015. Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) version 21. The mean and range for numeric scale variables were measured. The files were split based on certain variables for comparison purposes. The chi-square test was used, and P-values less than 0.05 were considered significant.

III. Results

A total of 1004 Saudis from all over the kingdom completed the questionnaire. There were 416 males and 588 females from various educational backgrounds. The age ranged from 14 to 57 with a mean of 25 years. People younger than thirty years old had a significantly less exposure to plastic surgeries (3.7%) compared to people who were forty years of age and above (17.5%) ($\chi^2 = 24.53$, degree of freedom (df) = 1, $p < 0.001$); however, the types of surgeries, indications and level of satisfaction did not differ significantly between the age groups. The majority in all age groups were not considering a future cosmetic procedure. Participants under nineteen years old had the highest rate of refusal for a future cosmetic surgery (82.1%) compared to those over fifty who had the lowest rate (55.6%) ($\chi^2 = 9.72$, df = 4, $p = 0.045$). Respondents younger than thirty years old had a significant lower income as 76.2% made less than ten thousand riyals per month unlike the 82.5% of older participants who made more ($\chi^2 = 105.98$, df = 3, $p < 0.001$).

The attitudes toward cosmetic practice varied significantly in terms of age as 63.7% of people younger than thirty years old were against it compared to the 39.7% of people over forty years old ($\chi^2 = 14.33$, df = 1, $p < 0.001$). Religion was the most commonly reported justification by people who were against cosmetic surgery especially in respondents younger than thirty years old (82.1%).

The numbers of males and females who had plastic surgery were almost similar; however, the type of surgery differed significantly as 81.8% of females underwent cosmetic procedures compared to 50% of males ($\chi^2 = 6.51$, df = 1, $p = 0.011$). The remaining underwent reconstructive surgery and burns were the main cause representing 66.7% in males and 50% in females. Women had a more significant tendency to undergo cosmetic surgery as 157 (27.1%) of them admitted future thoughts compared to 81 men (20.1%) ($\chi^2 = 6.22$, df = 1, $p = 0.013$). The knowledge about types of plastic surgery and the Islamic perspectives toward the field did not differ significantly between males and females.

The acceptance of cosmetic surgery between genders was similar represented by 39% and 41.6% of males and females, respectively. On the other hand, respondents who were against cosmetic procedures had religion as the most preventive reason representing 79.1% and 81.6% of all males and females, respectively. Participants who preferred having their surgery outside the kingdom represented 8.4% and 10.9% in males and females, respectively. The main reason was the expectation of better outcomes in both genders. Table 1 summarizes the questions and answers that varied significantly between males and females.
The surgical outcome satisfaction among participants who had an income of less than ten thousands was greater as 53% of them reported excellent results compared to participants with higher income who, by 60% of them, reported average results. The consideration of a future cosmetic surgery was reported by approximately 24% of the participants in both groups of low and high incomes. The answers to three questions were significantly different in low versus high income individuals and all are shown in table 2.

Table-2: The answers to three questions that were significantly different in low versus high income individuals.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Monthly Income</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 10,000 SR</td>
<td>10,000 SR and above</td>
</tr>
<tr>
<td>Have you ever undergone a plastic surgery?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Yes</td>
<td>30 (4.4%)</td>
<td>27 (8.4%)</td>
</tr>
<tr>
<td>b) No</td>
<td>654 (95.6%)</td>
<td>293 (91.6%)</td>
</tr>
</tbody>
</table>
What was the type of plastic surgery you had?

<table>
<thead>
<tr>
<th></th>
<th>a) Reconstructive</th>
<th>b) Cosmetic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13 (43.3%)</td>
<td>5 (18.5%)</td>
</tr>
<tr>
<td></td>
<td>17 (56.7%)</td>
<td>22 (81.5%)</td>
</tr>
</tbody>
</table>

Do you know any family member who underwent a cosmetic procedure?

<table>
<thead>
<tr>
<th></th>
<th>a) Yes</th>
<th>b) No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>158 (23.1%)</td>
<td>525 (76.9%)</td>
</tr>
<tr>
<td></td>
<td>102 (32%)</td>
<td>217 (68%)</td>
</tr>
</tbody>
</table>

Do you accept the concept of cosmetic surgery?

<table>
<thead>
<tr>
<th></th>
<th>a) Yes</th>
<th>b) No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>249 (36.5%)</td>
<td>434 (63.5%)</td>
</tr>
<tr>
<td></td>
<td>157 (49.2%)</td>
<td>162 (50.8%)</td>
</tr>
</tbody>
</table>

Participants who attained a bachelor’s degree were significantly more receptive to cosmetic surgery (41.7%) compared to high school graduates (34.4%) ($\chi^2 = 4.13$, df = 1, $p = 0.042$). None of the other variables differed significantly between the two groups.

The analysis of all the respondents’ answers without any demographic restrictions demonstrated that 93.7%, represented by 941 participants, agreed that not all types of plastic surgeries are prohibited in Islam. As for cosmetic surgery, 59.5% of the participants were against it due to mostly religious beliefs as per 80.6% of them (Figure 1).

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![Figure 1](image_url)

Figure-1: Shows the participants' justifications of why they were against cosmetic surgery along with the corresponding percentage of each justification.
Undergoing plastic surgery abroad was preferred by 9.9% of the respondents. The main reason was their expectations of better results stated by 76.8% (Figure 2). The media and the internet were the two main sources of plastic surgery information for 37.1% and 29.7% of the participants respectively (Figure 3). Furthermore, the main source of information for respondents who have undergone a plastic procedure was the internet (35.1%) followed by the various forms of media (28.1%). The internet was also the main source in 38.7% among participants who were considering a future cosmetic surgery.

Figure 2: Demonstrates the participants' reasons and their corresponding percentages behind having their plastic surgeries outside the Kingdom

Figure 3: Depicts the participants' sources of plastic surgery information along with the corresponding percentages
IV. Discussion

On the basis of the aforementioned results, people older than forty years are more likely to have a plastic surgery (17.5%) compared to individuals younger than thirty (3.7%). Older participants were also more receptive toward pure cosmetic surgery (60.3% vs. 36.3%). A possible explanation is the signs of aging which many older people tend to hide [4]. Furthermore, older people have higher incomes which, independently and positively, correlate with higher rates of plastic surgeries.

It appears that women are more likely to undergo and talk openly about their cosmetic procedures. This might be attributed to the fact that aesthetic aspects are considered a source of pride for women. In addition, another reason for women to declare their willingness to cosmetic surgeries is having one or more family member who has been exposed to such procedures. Al-Saiari and Bakarman reported a 2.2% rate of cosmetic surgeries performed on female university students aged between 18 and 22 years old. Moreover, 16.2% of the surveyed students may undergo a cosmetic procedure in the future [5]. Through analyzing the same age group of female participants in our study, we found a lower rate, as 1.28% of the participants had a cosmetic procedure in their past. However, the rate of a future cosmetic surgery consideration was higher represented by 22.4% of the young female participants in our study. The correlation between high income and the acceptance of cosmetic plastic surgery highlights the influence of financial status of the individual on their consideration for seeking plastic interventions. It seems that affordability might affect the choices that public make in terms of accepting or rejecting cosmetic concept in Saudi Arabia. Furthermore, it has been stated in the literature that plastic surgery, in general, depends upon the economic climate [6].

The study has shown that the vast majority of Saudi population believe that Islam is not against all kinds of plastic surgeries, but when it comes to pure cosmetic procedures almost 60% were against this type of practice. In addition, 88% of the participants recognized the difference between the reconstructive and cosmetic types of plastic surgery, which we believe is indicative of their perception to the basis of the practice.

The media and internet were the two most relied upon sources of plastic surgery information, although they both tend to advertise rather than inform people about plastic surgery. A further prominence of these two information sources is expected in the future [7, 8]. The internet was the main source of information for people who underwent or considered a plastic procedure in our study. In this regard, Light et al., who concluded in their article that internet is a powerful tool in terms of information provision, searched breast reconstruction after mastectomy on Google and Bing search engines and found that 67% of the sites were owned by advertising private companies [9]. Furnham and Levitas investigated 204 British people and found that the nonreligious participants with an increased exposure to media and low self-esteem were most vulnerable to cosmetic surgery [10]. Thus, the initiation of plastic surgery educational campaigns through the internet and the various forms of mass media is suggested.

The psychological aspects behind undergoing a plastic procedure were not covered in the current study. Furthermore, the types of cosmetic surgeries, our participants had, were not specified. We believe that such limitations raise future research ideas.
V. Conclusion

Age, female gender and high financial income were associated with increased rates of cosmetic surgeries. The majority of Saudis knew the difference between cosmetic and reconstructive plastic surgery and recognized that not all kinds of plastic procedures are forbidden in Islam. However, most of them were against the concept of cosmetic surgery mainly because of their religious beliefs. Although the media and internet often tend to be advertising to beauty, they were the Saudi’s most relied upon sources of plastic surgery information.

VI. References