Public Perception of Plastic Surgery in Saudi Arabia

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Background: The general public perceives plastic surgeons as cosmetic surgeons. This study aimed to assess the general public’s awareness of the field of plastic and reconstructive surgery in Saudi Arabia.

Methods: A short, anonymous, web-based survey was distributed to the public using SurveyMonkey as a platform. Participants were asked to choose the surgeon for managing 16 case scenarios, 11 of which were commonly managed by plastic surgeons.

Results: In total, 2,116 participants completed the survey. The participants correctly chose plastic surgery as the specialty for managing 3 of the 11 listed plastic surgery case scenarios.

Conclusion: More efforts are needed from plastic surgeons and media to educate the public about the scope of plastic and reconstructive surgery.

INTRODUCTION
Plastic surgery is one of the most diverse surgical specialties. It has a wide scope of work, extending across all anatomical areas, and includes both reconstructive and cosmetic procedures. Moreover, several procedures are performed by plastic surgeons together with other surgeons, such as orthopedic, general, ophthalmologic, maxillofacial, dermatologic, and ear–nose–throat surgeons. However, media focus more on the cosmetic and esthetic field of plastic surgery. This confuses the patients about whether they can be treated by a plastic surgeon for noncosmetic purposes. Further subspecialization in plastic surgery reduces the scope of practice of plastic surgeons. All these factors overshadow the role of plastic surgeons in reconstructive surgery. Consequently, fewer patients seek medical care from plastic surgeons, which may affect the future development of plastic surgery as a specialty. Several studies have shown limited understanding of the scope of plastic surgery in the general public in the United States, United Kingdom, and Australia. However, no such study has been conducted in the Middle East. Thus, the current study aimed to assess the general public’s awareness of the field of plastic and reconstructive surgery in Saudi Arabia.

METHODS
This was an internet-based cross-sectional study. A short, anonymous survey comprising a 2-part questionnaire related to the field of plastic and reconstructive surgery was designed. The survey was administered to the general public of Saudi Arabia over a 12-week period through different social media websites to assess their awareness regarding this field. SurveyMonkey (SurveyMonkey.com), which is a web-based, simple, and secure survey tool, was used as the platform for administering the survey.

Briefly, people were asked to complete this survey conducted to improve medical care in Saudi Arabia. The survey included 2 parts: the first part included questions on general demographics and the second part included question on 16 case scenarios. In the second part, the respondents were asked to choose 1 of the 4 listed surgical specialties most likely to be used for managing the 16 case scenarios. An “I do not know” option was also included. We have inserted 5 questions pertaining to different specialties, so that the participants do not get a clear idea that the questionnaire is regarding plastic surgery.

The survey was designed in Arabic to make it easier for the public to read and understand. The results of the survey were translated to English using accredited translation tools.

The survey was adapted from previous studies and modified as per the target population. It was reviewed by

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3 expert plastic surgeons to ensure clarity and simplicity and then pretested for content on 30 participants of various demographic characteristics, including age, sex, and education level, using its electronic version. The participants who participated in the pretest were not included in the analysis. Statistical analysis was performed on the SurveyMonkey website.

RESULTS

In total, 2,116 participants completed the survey, most of whom were between 20 and 30 years old (40.4%), were women (73.3%), had a bachelor’s degree (63%), and worked in nonmedical field (31.8%). The general demographic characteristics of the participants are presented in Table 1.

Plastic surgery was correctly chosen as the specialty of procedures required to manage 3 of the 11 listed plastic surgery-related case scenarios (27.27%). All the 3 chosen procedures were cosmetic procedures, namely liposuction (64.17%), blepharoplasty (48.72%), and face-lift (49.72%). Five of the case scenarios were related to hand surgery, and plastic surgery was not selected as the specialty for managing any of them.

The respondents selected orthopedic surgery (32.4%), general surgery (30.36%), and plastic surgery (17.81%) as the specialties for sever finger flexor tendon; orthopedic surgery (79.75%), general surgery (30.36%), and plastic surgery (3.42%) as the specialties for scaphoid fracture; neurosurgery (86.51%), orthopedic surgery (3.37%), and plastic surgery (3.14%) as the specialties for carpal tunnel syndrome; physical therapy (47.75%), orthopedic surgery (29.62%), and plastic surgery (0.71%) as the specialties for rheumatoid hand deformity; and pediatric surgery (41.94%), plastic surgery (40.7%), and general surgery (13.76%) as the specialties for hand syndactyly.

Further, the respondents selected pediatric surgery (57.37%), neurosurgery (14.02%), and plastic surgery (7.03%) as the specialties for craniostomy; ear–nose–throat surgery (70.24%), plastic surgery (18.65%), and general surgery (5.03%) as the specialties for ear replantation; and orthopedic surgery (74.13%), general surgery (7.32%), and plastic surgery (5.56%) as the specialties for lower limb reconstruction.

The most commonly selected surgical specialty for each procedure is shown in Table 2 and Supplemental Digital Content 1 (see figure, Supplemental Digital Content 1, which displays the percentage of the participants who selected plastic surgery for each case, http://links.lww.com/PRSGO/B5).

DISCUSSION

Several studies have assessed the general public’s perception of plastic and reconstructive surgery in several countries.3–5 However, no such study has been conducted in the Middle East. Thus, the present study aimed to fill this gap by evaluating the general public’s perception of plastic and reconstructive surgery in Saudi Arabia via a survey.

The results showed that the general public of Saudi Arabia has a poor understanding of plastic and reconstructive surgery. They consider that plastic surgeons mainly perform cosmetic procedures. These findings are consistent with those of the previous studies.3–5

Several studies have assessed the perception of plastic surgery among health-care staff, including nurses, medical students, and primary care physicians; all these studies revealed the prevalence of general misconceptions about the field of plastic surgery among the staff,4–6 similar to those in the general public.

In our study, the respondents chose plastic surgeons as the experts required for liposuction and face-lift. This finding is consistent with that of de Blacam et al.2 Further, plastic surgeons were chosen as the experts required for blepharoplasty, which is in contrast to the finding in the study conducted by de Blacam et al.,2 where most respondents selected “I do not know”.

In our study, plastic surgeons (0%) were not chosen as the experts required for managing any of the 5 hand-related case scenarios. In their study, Dunkin et al.4 questioned about

Table 1. Demographic Characteristics of the Participants

| Demographic Characteristics | n (%) |
|-----------------------------|-------|
| Total                       | 2,116 |
| Age (y)                     |       |
| Under 20                    | 132   |
| 20–30                       | 855   |
| 31–40                       | 611   |
| >40                         | 511   |
| Not specified               | 7     |
| Sex                         |       |
| Male                        | 571   |
| Female                      | 1,530 |
| Not specified               | 15    |
| Education                   |       |
| Secondary school            | 413   |
| Bachelor                    | 1,355 |
| Master                      | 148   |
| Other                       | 214   |
| Not specified               | 6     |
| Occupation                  |       |
| Studying                    | 421   |
| Unemployed                  | 627   |
| Medical field               | 383   |
| Nonmedical field            | 675   |
| Not specified               | 10    |

Table 2. Most Commonly Selected Surgical Specialty for Each Case

| Case                          | Most Commonly Selected Surgical Specialty | N (%) |
|-------------------------------|-------------------------------------------|-------|
| Liposuction                   | Plastic surgery                           | 1,352 |
| Face-lift                     | Plastic surgery                           | 1,048 |
| Blepharoplast                  | Plastic surgery                           | 1,025 |
| Severe finger flexor tendon    | Orthopedics                               | 682   |
| Scaphoid fracture              | Orthopedics                               | 1,678 |
| Carpal tunnel syndrome         | Neurosurgery                              | 1,821 |
| Rheumatoid hand deformity      | Orthopedics                               | 624   |
| Hand syndactyly                | Pediatric surgery                         | 884   |
| Craniosynostosis               | Pediatric surgery                         | 1,207 |
| Ear replantation               | Ear, nose, and throat surgery              | 1,480 |
| Lower limb reconstruction      | Orthopedics                               | 1,559 |
only 2 case scenarios related to hand surgery: repair of a cut in finger tendon and replanting of an amputated digit. Respondents reported the requirement of plastic surgeons for only the case of replanting of an amputated digit. In a study by Sinno et al., only 2 questions (~10%) regarding hand surgery, namely replantation of an amputated digit and finger fracture, were included. For both cases, the respondents reported the requirement of orthopedic surgeons.

For craniosynostosis, our respondents selected neurosurgeons as the required experts, consistent with the results of Dunkin et al. However, in contrast to their study, our respondents did not select plastic surgeons for performing ear replantation.

Furthermore, plastic surgeons were not selected as the required surgeons for lower limb reconstruction, consistent with the results of Sinno et al. The misconceptions regarding plastic and reconstructive surgery observed in the general public could be attributed to the word “plastic” and the media’s focus on the cosmetic role of plastic surgery.

These misconceptions could be detrimental to the specialty in different ways. For example, fewer patients may seek help from plastic surgeons for noncosmetic surgeries. This decrease in patient flow could hinder the development of plastic surgery as a specialty. Further, patients may view plastic surgeons as cosmetic surgeons, which will reduce patients’ confidence when they are being treated by plastic surgeons for noncosmetic purposes. The focus of media and reality television on cosmetic surgery has contributed to the deficiency in the understanding of the role of plastic surgeons in reconstructive surgery.

Several approaches can be used to increase public awareness about the diversity of the field of plastic and reconstructive surgery. First approach involves educating the patients visiting the clinic about the field of plastic surgery. These patients will be an impetus in spreading the knowledge to the general public. Second approach involves educating the health-care staff and doctors in different specialties about the field of plastic surgery. Third approach involves educating and encouraging medical students, during their rotation in plastic surgery, to be exposed to the different subspecialties in plastic surgery. Last, plastic surgeons should work with the media to spread maximum awareness about this field.

This study has some limitations. First, small number of participants completed the survey, and most of the respondents were women. Second, the survey was taken voluntarily at their own time by the participants, which may have led to an inherent bias as because those who willing participated could have researched about the conditions while completing the survey. Third, participants were not asked if they had prior exposure to the plastic surgery field, which may have increased their understanding of this field. Furthermore, this study surveyed only the general public in contrast to the previous studies, which also included medical students and health-care staff. In addition, limited number of surgical specialties was listed as choices for each case scenario. Also, some participants are in the medical field and maybe they saw only certain procedures “like hand cases” are performed only by orthopedics, so this could play a significant role in skewing the results. Last, most of the procedures included in the survey were those commonly performed by plastic surgeons, which could have resulted in selection bias.

CONCLUSIONS

Unfortunately, although many reconstructive surgeries are performed by plastic surgeons, the general public perceives plastic surgeons as only cosmetic surgeons. This misunderstanding is caused by several factors, including media’s focus on the cosmetic aspect of the field of plastic surgery. More efforts are needed by plastic surgeons to increase the public’s awareness about the reconstructive aspects of the field of plastic surgery. This is essential to encourage the development of this specialty.

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